



Foundation for Alcohol
Research & Education

A photograph of a large, weathered stone sign that reads "Welcome to the NORTHERN TERRITORY". The sign is set against a backdrop of a clear blue sky and some greenery. In the foreground, there is a dirt road and a simple wooden post-and-rail fence.

Welcome to the
NORTHERN TERRITORY

THE PRICE IS RIGHT:

Setting a floor price for alcohol
in the Northern Territory

AUGUST 2017

ABOUT FARE

The Foundation for Alcohol Research and Education (FARE) is an independent, not-for-profit organisation working to stop the harm caused by alcohol.

Alcohol harm in Australia is significant. More than 5,500 lives are lost every year and more than 157,000 people are hospitalised making alcohol one of our nation's greatest preventive health challenges.

For over a decade, FARE has been working with communities, governments, health professionals and police across the country to stop alcohol harm by supporting world-leading research, raising public awareness and advocating for changes to alcohol policy.

In that time FARE has helped more than 750 communities and organisations, and backed over 1,400 projects around Australia.

FARE is guided by the World Health Organization's (2010) *Global strategy to reduce the harmful use of alcohol* for stopping alcohol harm through population-based strategies, problem directed policies, and direct interventions.

If you would like to contribute to FARE's important work, call us on (02) 6122 8600 or email info@fare.org.au.

CITING THIS REPORT

The Foundation for Alcohol Research and Education (2017). *The Price is Right: Setting a Minimum Unit Price on Alcohol in the Northern Territory*. FARE: Canberra

ACKNOWLEDGEMENTS

Thank you to Anthony Harrison, Senior Policy Officer at the Foundation for Alcohol Research and Education for leading the work on this report.

FARE would also like to thank Dr Heng (Jason) Jiang, Professor Robin Room and Dr Michael Livingston from the Centre for Alcohol Policy and Research, La Trobe University, Professor Tim Stockwell from the Centre for Addictions Research of BC, University of Victoria and Dr John Holmes from the Sheffield Alcohol Research Group, the University of Sheffield, for their contributions to the report.

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A NOTE TO MICHAEL GUNNER

Dear Michael Gunner,

If the Northern Territory (NT) was a country, its per capita consumption would place it in the top ten drinking nations in the world. Not an enviable achievement. This is in spite of a 20 per cent decline in the per capita consumption of alcohol over the past decade, which while commendable is simply not enough.

The continuing high levels of consumption kills and maims, it perpetuates disadvantage, especially intergenerational disadvantage due to the harms to the developing child in pregnancy and the early years, and has a disproportionate impact on the NT's Aboriginal population.

Families are torn apart, children's lives are so badly affected that they fail to get a decent education, and people rarely escape the cycle of poverty and deprivation.

Alcohol's toxicity continues to poison the community both physically and socially in spite of the significant improvements that have been achieved.

In response, this paper proposes a profound intervention that will save lives; the introduction of a floor price on alcohol.

The election of the Gunner Government offers a rare opportunity to confront the impact alcohol has on all Territorians. The NT is now ready to move to the next level on alcohol policy, building on previous successful reforms, and make the quantum difference that is needed.

The Giles Government's approach to alcohol policy was reacting to crises. It showed insufficient concern for the likely impact of their policy decisions, and even less understanding of the policy evidence.

Faced with the harm it created by terminating the NT-wide Banner Drinkers Register (BDR), it relied on police to implement a racially-based supply reduction on take-away alcohol in Alice Springs, Tenant Creek and Katherine, and targeting only Aboriginal people living on alcohol-prohibited land. Although this has proved to be an effective supply reduction measure, it has been difficult to sustain, and has been racially divisive.

For the life of the Giles Government there was no effective approach to alcohol in Darwin – and the 'long grassers' in particular really suffered, as a number of coronial inquests have now shown.

In contrast, Michael Gunner's Government has openly acknowledged that the price the NT has paid for years of inconsistent and insufficient approaches to alcohol control has been a toll of unprecedented harm in all parts of the NT, including Darwin.

The Gunner Government provides hope that things can be different, and that alcohol's toll can be further reduced.

Its position to date has been that the negative consequences of alcohol in the Territory must be confronted by action that will make a difference.

And those words have been matched by its strong actions.

The Government has shown that it understands that the economic and physical availability of alcohol lies at the heart of the problem. The government will restore the Banned Drinker Register from September 2017; it has moved to place a ceiling on the size of bottle shops; and has imposed a moratorium on new takeaway liquor stores.

It has also commenced an independent review of the Territory's alcohol policies and system of regulation.

Evidence of the Government's acceptance that alcohol is a fundamental problem in the NT has been its determined action to stop retail giant Woolworths establishing a harm-causing 'big-box' liquor store in Darwin.

The mercenary attempts by Woolworths to establish a Dan Murphy's category-killer liquor store in Darwin clearly illustrates the disconnect between the behaviour of some corporate interests and the impact on people's lives, and especially highlights the problem of cheap booze.

Business models of big-box outlets are based on selling high volumes of discounted and cheap alcohol. They are highly dependent on the weaknesses in Australia's system of alcohol taxation, in particular the Wine Equalisation Tax (WET), which encourages the production of cheap bulk wine – the choice of Australia's heaviest drinkers and pre-loading young people.

In 2016 people could purchase 1.7 times as much wine as was possible in 1997 as a failure of successive Commonwealth Governments to fix the problems with the WET. In the face of overwhelming evidence of the harm it causes, this means jurisdictions like the NT, with the highest level of harm, must act independently to stop the harm cheap booze causes.

This paper proposes that the NT Government introduces a \$1.50 per standard drink floor price across the Territory as a primary intervention to reduce alcohol-related harm.

This is an effective and powerful intervention that will significantly reduce harm and save lives. The evidence from other parts of the world where governments have introduced floor prices is clear.

The NT has recognised the problem of cheap booze in the past. Previous governments have successfully taken action; the problem is that these have been undermined or frustrated by subsequent governments, and notably, by the Commonwealth.

Particular actions include the special levies imposed by the Perron Government through the 1991 Living With Alcohol program, abolished in 1997 because of a High Court decision; and the Henderson Government introduced a BDR, which was only in place for 12 months before it was suddenly removed by the Giles Government – causing a major increase in harm.

However, some measures have continued to drive down alcohol consumption. The 2006 Alice Springs Liquor Supply Plan was introduced by the Martin Government. It removed from the market all cask wine in containers greater than two litres, and following an 18 per cent decline in per capita consumption, it was rolled out Territory-wide in 2010. In 2011 Alice Springs' supermarkets voluntarily agreed to not sell alcohol below about \$1 per standard drink. Both these measures constitute de facto floor price measures.

These important price-based initiatives remain in place and have helped drive down alcohol consumption in the NT, but the totality of the harm caused by alcohol warrants further strong action.

In adopting a floor price for alcohol, the Gunner Government would furnish itself with one of the most effective alcohol policies available to governments to stop harm caused by cheap alcohol, while not interfering with the sale of a wide variety of affordable and quality alcohol products.

A floor price is a highly targeted intervention, reducing consumption among the heaviest consumers while limiting any impact on those drinking at moderate levels. This will provide maximum returns; lowering rates of acute harm and reducing the burden of chronic disease without adversely affecting ordinary drinkers.

It will deliver benefits across all domains. It will reduce crime, hospitalisations and hospital emergency department presentations. It will cut rates of family and domestic violence, increase the safety of women and children, reduce child neglect and improve the wellbeing of all Territorians.

Adopting a floor price as a signature policy would be a Gunner Government legacy with lasting benefits for all those living in the NT, and likely beyond.



Donna Ah Chee
Chair, AMSANT



Michael Thorn
Chief Executive, FARE





CHEAP ALCOHOL RESULTS IN HIGHER RATES OF CONSUMPTION AND HARM

In the Northern Territory alcohol is almost twice as affordable as it was 20 years ago, and the Territory has the world's most dangerous levels of alcohol consumption.

The number of alcohol attributable deaths in the NT is approximately three times the national average, and alcohol is involved in more than half (51.1 per cent) of all assaults in the NT.

ALCOHOL PRICING REFORM IS ONE OF THE MOST COST-EFFECTIVE WAYS TO REDUCE ALCOHOL HARM



Evidence makes clear that the lower the price of alcohol, the higher the levels of consumption.

Young people and heavy drinkers are particularly sensitive to alcohol price, with the heaviest drinkers more likely to seek out cheaper alcohol than moderate drinkers.



A PRICE LEVEL OF A\$1.50 PER STANDARD DRINK SHOULD BE INTRODUCED IN THE NT

The introduction of a minimum floor price policy would not only target cheap alcohol products; it would also result in reductions in alcohol attributable hospitalisations and deaths.

INTRODUCTION

Relative to wages, the cost of alcohol has reduced considerably in the Northern Territory (NT) over the past 20 years. Lower prices and the resulting increase in demand has contributed to unacceptable levels of harm in the community. With rates arguably among the highest in the world, the harm caused by alcohol is more prominent in the NT than in any other Australian jurisdiction. While the Commonwealth Government remains uncommitted to reforming a defective alcohol tax system, which has driven the proliferation of cheap alcohol, it is incumbent on the NT government to explore options to stem alcohol's harm. A minimum unit price, which would set a price per unit below which alcohol cannot be sold, is one such measure.

This discussion paper explores the issues associated with the introduction of a minimum unit price in the NT, drawing on perspectives from health economics, public policy and law. The demonstrated impact of floor prices implemented in other countries is used as the basis for understanding their likely impact in Australia.^a This is complemented by research investigating the specific effects likely to result from a minimum unit price in Australia, based on available evidence including price elasticities of demand for alcohol and consumption trends across demographic cohorts. Overall, the evidence suggests that a minimum unit price will deliver a marked reduction in harm associated with alcohol consumption in Australia. This stands to address the harm caused by cheap alcohol most particularly in the NT.

While tax reform remains the preferred option, there are several specific advantages to a minimum unit price. This includes the ability to target only the cheapest alcohol products while leaving the price of other products relatively unchanged. Given the reliance of the heaviest consumers (those most at risk of harm) on cheap alcohol, the measure may be targeted to reduce harmful consumption while having minimal impact on moderate consumers. For this reason, the policy is likely to meet less opposition from the general public. In addition, the increased profit associated with larger margins between the price of production and sale is likely to be captured by retailers. While reflecting the distortion produced through minimum unit prices and generally considered a limitation, this will serve to increase industry support for the measure.

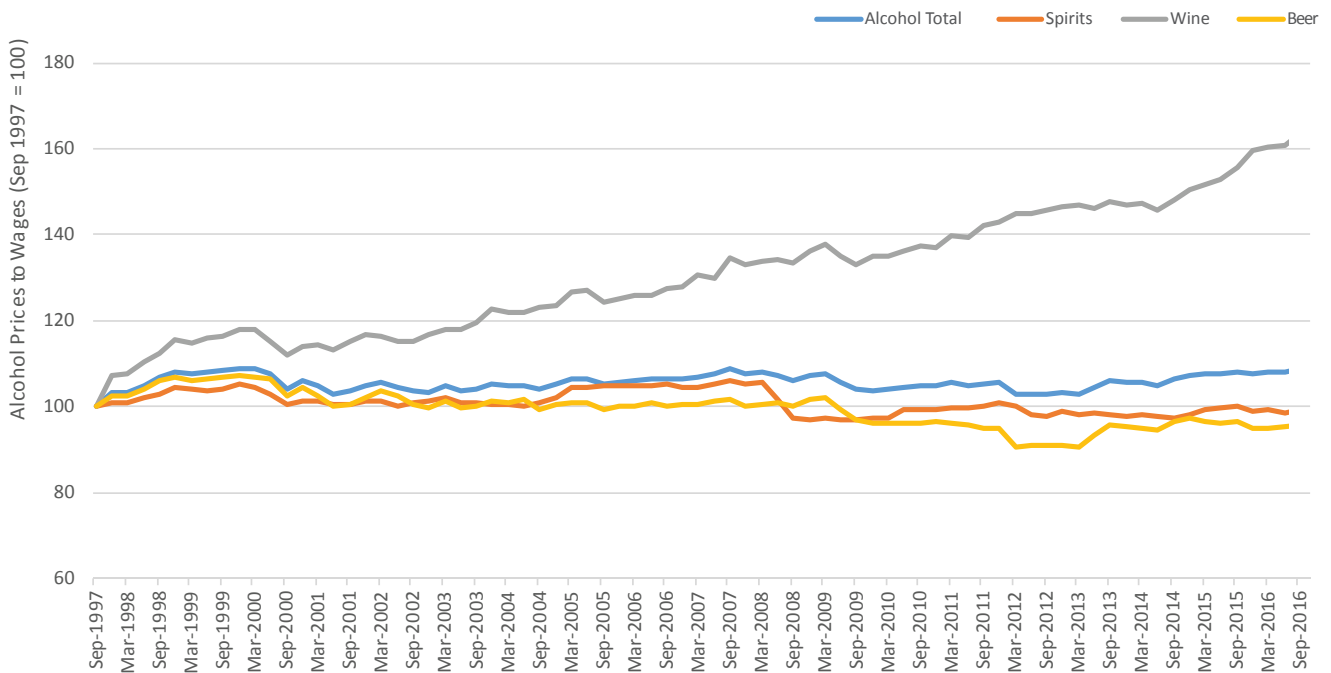
There are several other limitations that will require careful navigation. In addition to increased revenue to alcohol retailers, these include the impact of pricing measures on low-income consumers and those with physical dependency on alcohol. Furthermore, by restricting price competition, retailers may be incentivised to engage in more non-price competition, including marketing and advertising activities. These potential limitations highlight the importance of introducing a minimum unit price in conjunction with safeguards to strengthen alcohol regulatory systems and ensure that the scheme does not result in unintended outcomes. Consideration should be given to strengthening controls of marketing activities, including sponsorship of sporting events, point of sale promotions and advertising. Additional funding to support services should accompany the introduction of a minimum unit price to mitigate adverse impacts on dependent drinkers and their families. Overall, the NT government should work closely with the public health sector to develop a comprehensive suite of reforms and ensure that a floor price is implemented with appropriate safeguards. The substantial benefits associated with a minimum unit price far outweigh possible unintended consequences. Harmful consumption among the heaviest drinkers and young people in particular will be reduced, whether or not they choose to access treatment services.

^a Minimum unit prices are also known by several other names, including 'floor prices' and 'social reference prices'. The present report will use these terms interchangeably.

THE BURDEN OF CHEAP ALCOHOL

A large reduction in the real cost of wine has driven an increase in the economic availability of alcohol in the past 20 years, exacerbating these harms. Figure 1 demonstrates Northern Territory (NT) total hourly rates of pay excluding bonuses relative to alcohol prices in Darwin, indexed to September 1997. As demonstrated, the proportion of a person's weekly earnings that could purchase a unit of alcohol in Darwin in September 1997 would be enough to purchase 1.1 units of alcohol in September 2016. In other words, on average, people living in Darwin could afford to purchase ten per cent more alcohol in 2016 compared with 20 years earlier. While there were very modest reductions in the affordability of beer and spirits over the period, a strong increase was observed in the relative cost of wine. The same proportion of a person's wage would purchase close to 1.7 times the amount of wine in 2016, compared with the quantity it could have purchased in 1997.

FIGURE 1: AFFORDABILITY INDEX OF ALCOHOL, NORTHERN TERRITORY, 1997 TO 2016



Sources: FARE calculations based on ABS Cat. No. 6345.0 – Wage Price Index, Australia, Dec 2016; and ABS Cat No. 6401.0 – Consumer Price Index, Australia, Dec 2016.

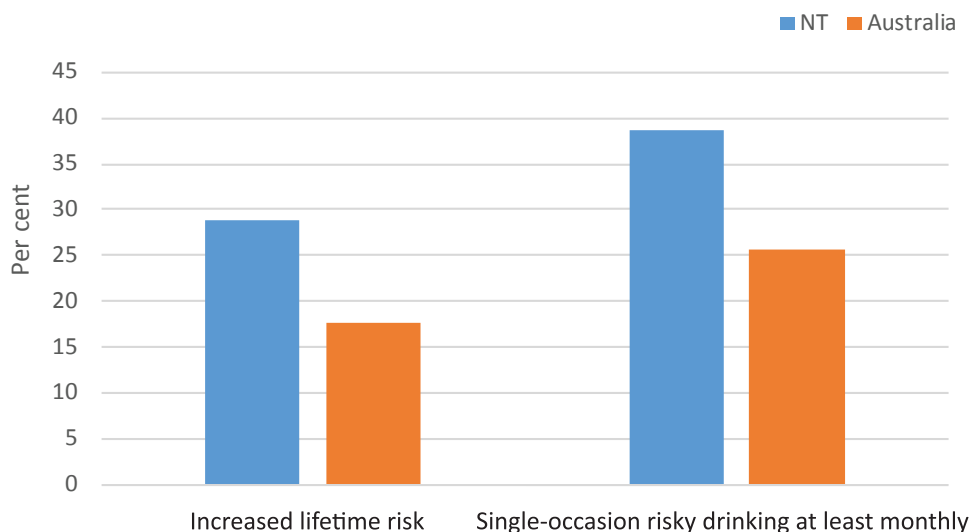
Cheap alcohol encourages higher rates of consumption and consequent harm. The harm associated with alcohol extends to both drinkers and third parties. In the short-term, alcohol contributes to the incidence of assault^{1,2,3} and injury.⁴ Over prolonged periods, dangerous patterns of alcohol consumption can result in a range of chronic diseases and disability.⁵ In 2010, 15 deaths and 430 hospitalisations occurred as a result of alcohol each day in Australia.⁶ Deaths due to alcohol have risen by a staggering 62 per cent since that time.⁷ For men, injuries accounted for more than a third (36 per cent) of alcohol-related deaths, while cancer and digestive diseases caused 25 and 16 per cent, respectively.⁸ For women, one in three alcohol-related deaths were due to heart disease (34 per cent), followed by cancers (31 per cent) and injuries (12 per cent).⁹

The Northern Territory has a long and particularly troubled history with heavy alcohol consumption and associated harm. In 2011-12, NT residents consumed 13.3 litres of pure alcohol on average, markedly more than the national average of 10.0 litres per capita.¹⁰ While data suggests that there has been a decline in recent years, rates of consumption remain unacceptably high at 11.9 litres per capita in 2015.¹¹ This rate is still among the highest in the world. When looking at global rates of consumption, this level places NT within the top ten countries with the heaviest consumption rates. In other words if the NT was a country it would be among one of the heaviest drinking nations in world.¹²

^b The Affordability Index represents the Wage Price Index for the Northern Territory (ABS Cat. No. 6345.0) divided by the Darwin Consumer Price Indexes specific to alcohol product classes (ABS Cat No. 6401.0). Each series is indexed to September 1997.

In the Northern Territory, 38.6 per cent of people aged 12 years and older consume alcohol at rates that place them at risk of short-term harm at least monthly (see Figure 2).¹³ This is significantly more than the proportion reporting such consumption nationally (25.7 per cent).¹⁴ In addition, 28.8 per cent of NT residents aged 12 years and over consume alcohol at levels that place them at risk of long-term harm, including chronic disease and illness.¹⁵ This rate is also larger than the proportion reporting such harmful consumption nationally (17.6 per cent).

FIGURE 2: PROPORTION OF INDIVIDUALS 12 YEARS OR OLDER REPORTING RISKY CONSUMPTION PATTERNS, IN THE NORTHERN TERRITORY AND AUSTRALIA, 2013



Source: Australian Institute of Health and Welfare. (2014). National Drug Strategy Household Survey 2013.

Alcohol accounts for a much larger share of deaths in the NT than in any other Australian jurisdiction. The proportion of male and female deaths in the NT that are attributable to alcohol are both approximately three times the national rates (see Figure 3). For males, 13.4 per cent of deaths are attributable to alcohol, compared with 4.7 per cent nationally. At the same time, 8.9 per cent of female deaths in the Northern Territory are attributable to alcohol, compared with 3.0 per cent nationally. Alcohol also accounts for a larger proportion of hospitalisations in the NT than in other jurisdictions. In 2010, 2.7 per cent of hospitalisations in the NT were related to alcohol compared with a national rate of 1.8 per cent (see figure 4).

FIGURE 3: PROPORTION OF DEATHS ATTRIBUTABLE TO ALCOHOL BY JURISDICTION AND GENDER, 2010

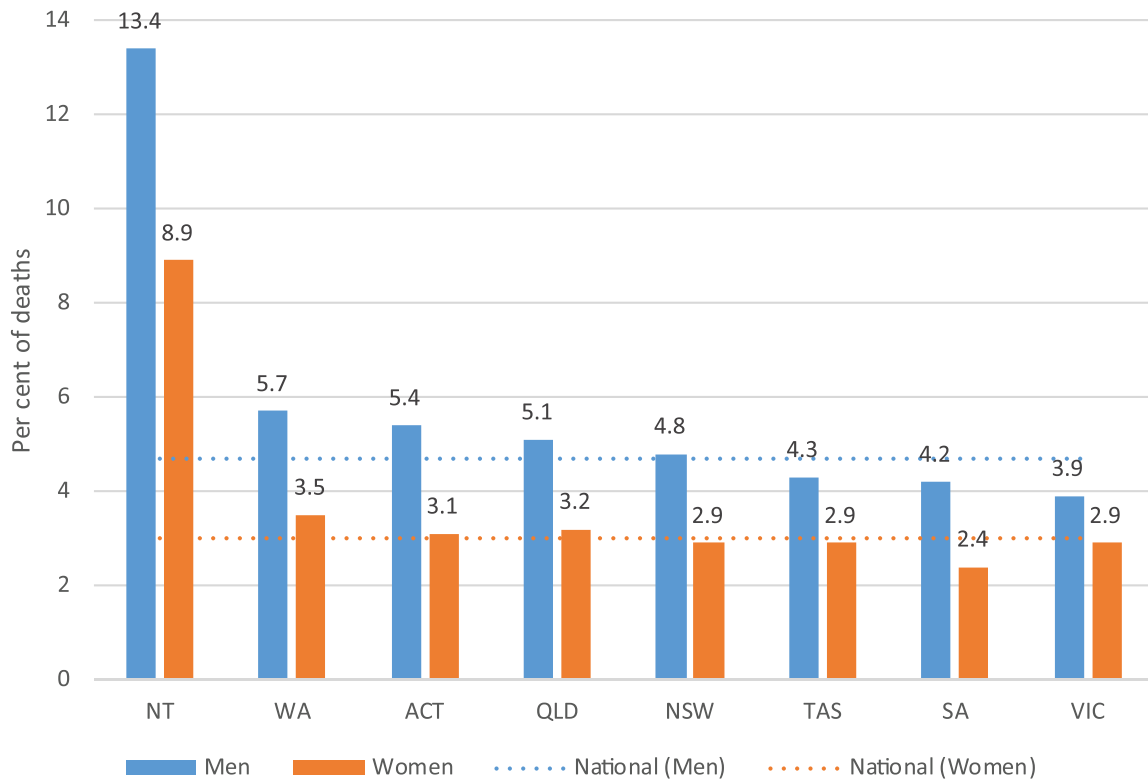
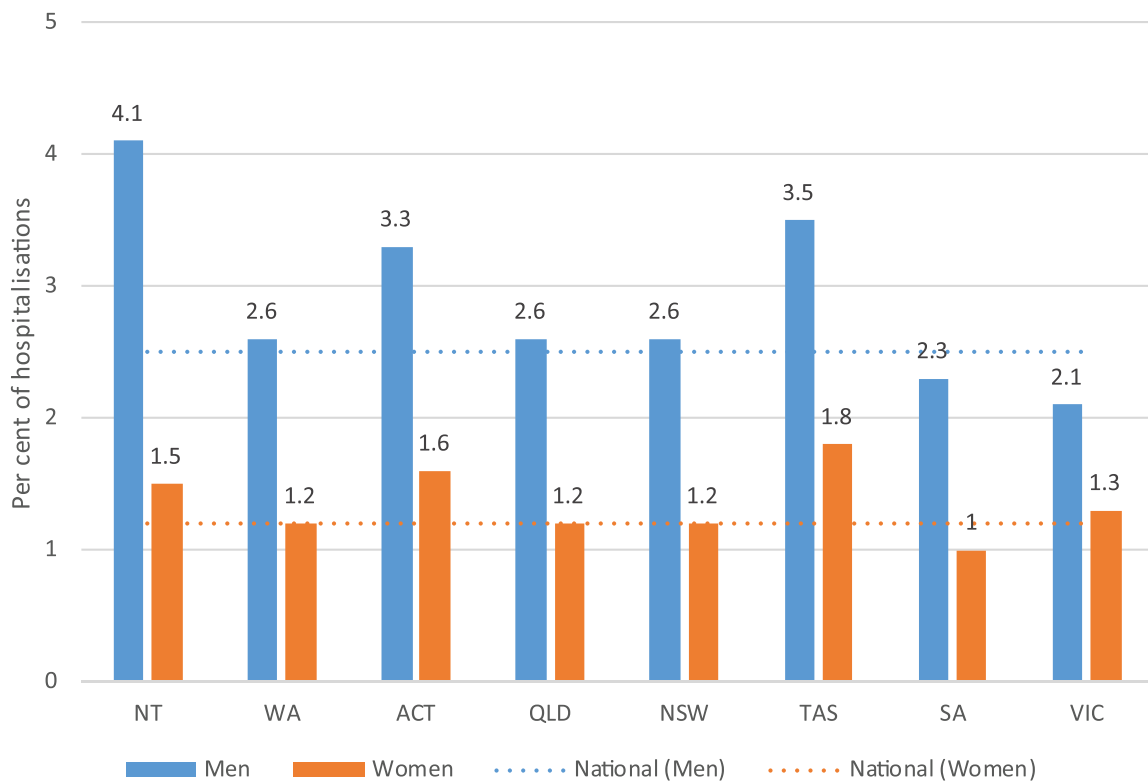


FIGURE 4: PROPORTION OF HOSPITALISATIONS ATTRIBUTABLE TO ALCOHOL BY JURISDICTION AND GENDER, 2010



Source: Gao, C., Ogeil, R.P., & Lloyd, B. (2014). Alcohol's burden of disease in Australia. Canberra: Foundation for Alcohol Research and Education and VicHealth in collaboration with Turning Point.

As a substance of dependence, heavy consumers of alcohol may experience difficulty reducing their intake. This is reflected in the large number of individuals seeking alcohol treatment services, and the propensity for such individuals to return on numerous occasions. In fact, alcohol is responsible for the majority of

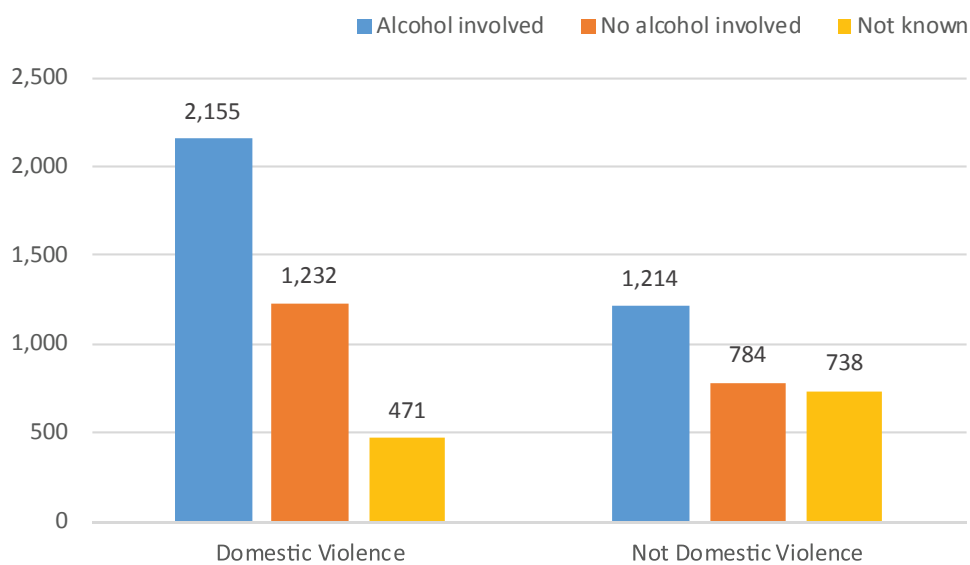
presentations to alcohol and other drug (AOD) treatment services in the NT, with 58 per cent of clients seeking treatment for alcohol in 2014-15, compared to 15 per cent for the next highest drug of concern, cannabis.¹⁶ With amphetamine clients representing just 11 per cent of those seeking treatment, there were 5 times as many individuals seeking help for alcohol dependence than for amphetamines (including methamphetamine) in 2014-15.¹⁷

The scale and variety of harm that alcohol causes to third parties distinguishes it from other health and lifestyle risks, such as smoking and gambling. This includes street and family violence,^{18,19,20} as well as road traffic accidents,²¹ and child maltreatment.²² Alcohol is involved in between 23 per cent²³ and 65 per cent²⁴ of family violence incidents reported to police. Between 2002-03 and 2011-12, 36 per cent of perpetrators of intimate partner homicides had used alcohol.²⁵

Children are also subject to considerable levels of alcohol harm. More than one in five (22 per cent) Australian children are negatively affected by the drinking of others.²⁶ Problematic drinking by their primary caregiver substantially affects 142,582 Australian children, and 10,166 children are already in child protection system as a result.²⁷ The NT has the highest rate of substantiated child neglect in Australia and more than 1,000 children in Out of Home Care (including more than 900 aboriginal children).²⁸ In addition, the Australian Early Development Census has revealed that the NT has the most developmentally vulnerable children in Australia and this is partly caused by parental alcohol abuse leading to a lack of responsive care and, at times, neglect of children.²⁹ In addition to maltreatment and neglect, children can be affected by alcohol consumption prior to birth through Fetal Alcohol Spectrum Disorders (FASD).³⁰ As a result of alcohol's harm to others, more than 360 people die each year, a further 14,000 are hospitalised, and close to 70,000 people are victims of assault.³¹

In 2016, alcohol was involved in more than half (51.1 per cent) of all assaults in the NT.³² In total, there were more than 3,300 assaults involving alcohol across the year, equating to approximately nine per day³³ (see Figure 5). Alcohol contributes disproportionately to violence in homes and communities across the NT, with statistics suggesting that it is involved in almost two-thirds (65 per cent) of domestic violence incidents.^{34,35}

FIGURE 5 – ASSAULTS BY ALCOHOL AND DOMESTIC VIOLENCE INVOLVEMENT, NORTHERN TERRITORY, 2016



Source: Northern Territory Police. (2017). Northern Territory crime statistics – December 2016.

Together, these data paint a sobering picture of the harm caused by cheap alcohol in the NT. Significantly higher rates of consumption lead to higher rates of harm to drinkers, through misadventure and chronic disease, as well as third parties. Alcohol contributes to unacceptably high rates of incarceration (of both adults and juveniles), child maltreatment and neglect, as well as violence in homes and communities. It is essential that effective measures are put in place to reduce such harm.

TAX REFORM

Pricing measures are considered to be among the most effective in reducing the harm associated with alcohol consumption.^{36,37,38,39} The current alcohol tax system is incoherent, inequitable and contributes to significant levels of alcohol harm in Australian communities. Since the introduction of the Wine Equalisation Tax (WET) in July 2000, wine and other fruit-based alcohol products have been taxed on the basis of their sales value while other products are taxed on the basis of their alcohol content. The result of this discrepancy is a strong incentive for wine producers to use their comparative advantage to manufacture wine at the lowest cost per unit. It is for this reason that low-cost wine is the cheapest alcohol available in Australia,^{40,41} with so-called 'goon bags' the product of choice for binge-drinking adolescents and dependent drinkers alike. In fact, this value-based system applies larger taxes to more premium products. If the Commonwealth Government wishes to use the value-based tax on wine to control levels of consumption and consequent harm, it risks levying premium products more heavily while leaving cheaper products much less affected.

Under a volumetric tax, which is applied to other products and taxes based on the alcohol content of products, the government can maintain control over price levels and consumption without creating distortions in the market. Indeed, taxation is considered the most cost-effective approach to reducing alcohol harm, and is strongly supported by research both within Australia and internationally.⁴² Of the available policy interventions, regulating price through the imposition of volumetric tax on all alcohol products is considered the most effective means for reducing alcohol harm.⁴³ Fixing the alcohol tax system stands to both increase public revenue and reduce harmful consumption,⁴⁴ particularly among heavy drinkers.⁴⁵ Indeed, research suggests that alcohol tax may be used effectively to target harmful drinkers.^{46,47} An increase in the price of some products under a tax regime would therefore contribute to reduced consumption most markedly among drinkers at risk of long-term harm, thereby delivering large and sustained health benefits.⁴⁸

Younger people also stand to benefit from transitioning the Wine Equalisation Tax to a volumetric system. Policies that increase the price of alcohol lead to a reduction in the proportion of young people who are heavy drinkers, a reduction in underage drinking, and a reduction in per occasion 'binge drinking'.⁴⁹ Recent research found that a one per cent increase in price due to taxation, resulted in a 1.4 per cent reduction in binge drinking by adults (defined as drinking at or above levels associated with intoxication).⁵⁰ This research extends evidence that increasing the price of alcohol through taxes is effective in reducing not just overall consumption, but high-risk consumption.^{51,52}

There is broad support for an overhaul of the alcohol tax system. In addition to a variety of government reports recommending such reform (with many specifically recommending a transition to volumetric tax), alcohol industry businesses and representative bodies have also advocated for change. To date, at least eleven government reviews have concluded that the alcohol tax system should be overhauled.^c Foremost among these was the 2009 Australia's Future Tax System (Henry) Review, which determined that reforming the WET was a matter of urgency for the Australian Government,⁵³ stating that the "current alcohol taxes reflect contradictory policies... As a consequence, consumers tend to be worse off to the extent that these types of decisions to purchase and consume, which may have no spillover cost implications, are partly determined by tax".⁵⁴ The Henry Review recommended that alcohol taxes should be set to address the spillover costs imposed on the community of alcohol abuse. In 2011-12, the Australian National Preventive Health Agency (ANPHA) concluded that the WET required reappraisal.⁵⁵ In its final report, ANPHA stated that, "There was strong endorsement from a wide range of stakeholders for a volumetric tax on all alcohol products and many noted, referring to the Henry Tax Review, that reform of the WET could have similar effects in reducing alcohol harm as those of a minimum price".⁵⁶

^cReviews that have recommended a volumetric tax be applied to wine include:

- the 1995 Committee of inquiry into the wine grape and wine industry
- the 2003 House of Representatives Standing Committee on Family and Community Affairs inquiry into substance abuse
- the 2006 Victorian inquiry into strategies to reduce harmful alcohol consumption
- the 2009 Australia's future tax system (Henry Review)
- the 2009 National Preventative Health Taskforce report on *Preventing alcohol related harms*
- the 2010 Victorian inquiry into strategies to reduce assaults in public places
- the 2011 WA Education and Health Standing Committee inquiry into alcohol
- the 2012 Australian National Preventive Health Agency *Exploring the public interest case for a minimum (floor) price for alcohol, draft report*
- the 2012 Australian National Preventive Health Agency *Exploring the public interest case for a minimum (floor) price for alcohol, final report*
- the 2014 House of Representatives report on the *Inquiry into the harmful use of alcohol in Aboriginal and Torres Strait Islander communities*
- the 2017 Senate Committee on Red Tape interim report on the *Effect of red tape on the sale, supply and taxation of alcohol*.

There is a common misconception that the wine industry is not supportive of alcohol taxation reform. To the contrary, there is now evidence of support from large, medium, and small producers within the industry. The Distilled Spirits Industry Council of Australia⁵⁷ and Brewers Association,⁵⁸ as well as two of the largest wine producers and a variety of boutique producers, are supportive of reforming the WET.

Treasury Wine Estates and Pernod Ricard Winemakers are the two largest wine producers in Australia, making up 20.1 per cent of Australian wine production.⁵⁹ Treasury Wine Estates has stated that, “The phenomenon of very cheap wines seen in Australia in recent years is a further unintended consequence of the WET rebate, and adds weight to calls to remove or fundamentally reform the scheme.”⁶⁰ Former Chief Executive David Dearie used stronger language in another forum, calling for the scrapping of the WET and WET rebate and saying that it is “widely rorted, underpins the excess supply that has blighted Australian wine.”⁶¹ Pernod Ricard Winemakers (previously Premium Wine Brands) have also publicly criticised the WET, advocating instead for a volumetric system.⁶²

Commentary from within the wine industry suggests that there are several other small and medium sized producers who acknowledge that the industry would benefit from reforming the WET. Jeremy Oliver, an Australian wine writer and presenter has written, “Is there any sense in any aspect of the current taxation environment? If so, I can’t see it. Surely it’s time to fix this thing before the collateral damage it directly causes gets even worse.”⁶³ Westend Estate Wines (now Calabria Family Wines) has argued that “the Wine Equalisation Tax is having a negative impact throughout the domestic market, and virtual wineries with no long-term vision are abusing the system which was put in place to benefit the smaller wineries.”⁶⁴

MINIMUM UNIT PRICING

The Australian Constitution limits the ability of states and territories to apply taxation, effectively restricting the use of such measures to the Commonwealth Government. While inertia at the Commonwealth level continues to prevent meaningful tax reform, states and territories may need to explore policy approaches allowed under their jurisdiction. One such mechanism is a minimum unit price, which restricts the sale of cheap alcohol by setting a price below which it cannot be sold. While there are several limitations to floor price policies, proponents argue that they provide a more targeted approach than taxation by lifting the price of cheap alcohol while leaving the price of other products relatively unchanged. As a result, the scheme may be used to reduce rates of harmful consumption while having relatively little impact on moderate drinkers.

The concept of a minimum unit price is not new to the Northern Territory. In July 1995, the NT Government introduced a \$0.35 per litre levy on the sale of cask wine to address the harm associated with its consumption in communities across the territory. This approach complemented several other attempts by the NT government to stem the harm caused by the availability of cheap cask wine, including a trial ban on four litre casks in Tennant Creek (a community with particularly high levels of harm).⁶⁵ The levy aimed to both reduce alcohol consumption and increase revenue for the *Living with Alcohol Program*,⁶⁶ a major public health initiative aimed at reducing alcohol-related harm in the NT. Despite being relatively short-lived, with a High Court decision declaring the levy unconstitutional in August 1997,⁶⁷ research examining the effects of the levy suggest that it had been effective in reducing alcohol harms. In particular, a four per cent reduction in overall consumption between 1995-96 and 1996-97 was found to be attributable to the levy.^{68,69} In the 12 months after the levy was removed, the average retail price of cask wine reduced and consumption was observed to increase (but did not return to the level of consumption prior to the levy).⁷⁰ In addition to research examining its effect on levels of consumption, the impact of the levy on levels of harm has also been considered. Results suggest that the combination of the *Living with Alcohol Program* and levy significantly reduced acute alcohol-attributable deaths in the NT between 1992 and 1997.⁷¹ Floor pricing schemes have been used in several jurisdictions around the world. Box 1 provides several such examples and their effects.

BOX 1: CASE STUDIES OF MINIMUM UNIT PRICING

CANADA

Floor pricing, referred to locally as 'social reference pricing', has been employed in Canadian provinces at least since the 1990s,^{72,73} and is now in place in all ten provinces. Provincial governments have introduced floor prices through several different instruments, including regulation, under the authority of the liquor control/licensing statutes, and through administrative policies and guidelines provided by liquor regulators.^{74,75} Minimum unit prices have predominantly been set between C\$1.50 and C\$1.75 (equating to approximately A\$1.48 and A\$1.72).⁷⁶

Provincial and Territorial governments in Canada are among a variety of jurisdictions that maintain a government monopoly on the liquor trade,⁷⁷ recognising the fact that market failure can occur through its negative spillovers.⁷⁸ For this reason, the additional revenue captured by floor pricing is delivered to government rather than retailers (as would be the case in other jurisdictions, including Australia). The increased revenue provided to provincial governments is likely to have been a large driver for implementation of the policy across the country.

The adoption and indexation of floor prices in different Canadian provinces, has allowed evaluation of the policy approach based on Canadian experiences. A consistent and marked reduction in consumption has been observed in jurisdictions that have introduced a floor price. Analysis of floor prices in Saskatchewan suggested that a 10 per cent increase in price was associated with an 8.4 per cent reduction in consumption.⁷⁹ Increased floor prices in Saskatchewan were also found to be associated with a significant 8.0 per cent decrease in night-time alcohol-related traffic offences in men, as well as a marked reduction in observed violent offences (-19.7 per cent at four months).⁸⁰

In British Columbia, research has identified that a 10 per cent increase in the floor price was associated with a 3.4 per cent reduction in consumption.⁸¹ At the same time, this price change was found to be associated with an 8.9 per cent reduction in acute alcohol-attributable admissions and a 9.2 per cent reduction in chronic alcohol-attributable admissions two years later.⁸² Robust evidence has also suggested that alcohol-attributable deaths are reduced by floor pricing, with a 10 per cent increase in average minimum prices associated with a staggering 31.7 per cent reduction in wholly alcohol-attributable deaths.⁸³

Research has also demonstrated an inverse relationship between family income and the effect of minimum prices in British Columbia, suggesting that low income families benefit from a larger reduction in harm under such schemes.⁸⁴ In low family income regions, a 1 per cent increase in the minimum unit price was found to be associated with 2.1 per cent reduction in wholly alcohol-attributable hospital admissions for chronic disease and a 1.8 per cent decrease in partially alcohol-attributable hospital admissions.⁸⁵

SCOTLAND

The Scottish National Party (SNP) introduced and was able to pass the Alcohol (Minimum Pricing) (Scotland) Bill in 2011. Although the bill does not specify the level at which the floor price will be set, then Health Secretary Nicola Sturgeon has indicated that the preferred price would be 50 pence per unit.^{86,87} Modelling suggests that a minimum unit price set at this level would result in a 7.2 per cent reduction in consumption.⁸⁸

Introduction of the bill led to a considerable level of debate in both Scotland and the United Kingdom more broadly. Proponents of the bill highlighted strong evidence of reduced consumption and consequent harm, as well as the ability for the policy to target binge drinkers, harmful drinkers and young drinkers in particular.⁸⁹ At the same time, opponents predominantly argued that the policy was relatively untested, that it would not affect consumption among harmful and hazardous drinkers, that it would unfairly punish responsible drinkers and that it would disproportionately affect individuals with low incomes.⁹⁰ Opponents also suggested that the policy would have adverse impacts on the alcohol industry, including that it would lead to large job losses, increase the illegal trade, provide large and distorting windfalls for retailers and infringe on European Union competition law.^{91,92,93}

Implementation of the legislation has faced lengthy delays as a result of legal challenges mounted by the Scotch Whiskey Association (SWA). The case has moved between both houses of the Scottish Court of Session (Scotland's supreme civil court) and the Court of Justice of the European Union. After the Court of Session rejected a challenge by the drinks industry suggesting that floor prices were in breach of European law, the SWA applied for and has been granted leave to appeal to the UK Supreme Court.⁹⁴

EASTERN EUROPE

Minimum unit prices are also in place in several countries in Eastern Europe, including Russia, Ukraine, Uzbekistan and the Republic of Moldova.⁹⁵ In Russia, minimum prices apply to alcoholic products containing 23 per cent alcohol and higher.⁹⁶ The floor price was increased several times since its implementation in 2009, but was reduced in 2014 due to weak currency and concern relating to increased illegal production.⁹⁷ However, the policy has seen renewed momentum and further increases in the minimum price level are expected in 2017.⁹⁸ Although alcohol consumption has declined in Russia in recent years, the extent to which the minimum price has contributed to this appears not to have been robustly evaluated, and is made difficult to assess given apparent growth in the informal alcohol economy.⁹⁹

SUPPORT ACROSS INDUSTRY

Given that a floor price is likely to have large and differing effects on businesses at different levels in the supply chain, the level of support across the industry is likely to be varied. In a consultation round on minimum unit, held by the Australian National Preventive Health Agency (ANPHA), all nine industry submissions expressed opposition to the policy.¹⁰⁰ Despite this, ANPHA recognised that “the largest beneficiaries of a minimum price would likely be off-licence retailers”.¹⁰¹

Supermarkets dominate the off-licence sector, have substantial buying power and the ability to negotiate lower prices from suppliers and producers. Research commissioned by a producer, SAB Miller, argued that a minimum unit price of 45 pence in the UK would increase retailer profits by between £1.8 billion and £2 billion per annum.¹⁰² An independent study found that alcohol sales revenue to producers and retailers would increase by £700 million per annum under the scheme (an increase of 8.0 per cent).¹⁰¹ While smaller than the figures suggested by the research conducted for SAB Miller,¹⁰⁴ this remains a sizable increase in revenue to alcohol retailers. These findings suggest that reduced consumption will not outweigh increased profit margins for off-licence retailers. As such, supermarkets and other retailers are likely to provide their support to the introduction of a minimum unit price. Woolworths Group, trading under Dan Murphy’s and BWS, has expressed support for locally imposed minimum pricing, having even established self-imposed ‘effective’ minimum prices on wine sold in several regions of the NT.¹⁰⁵

In addition to support from retailers, the on-licence trade is also likely to be supportive of a floor price in certain forms. A minimum unit price is not likely to have a substantial impact on products sold at on-licence venues, given that existing prices are typically higher given larger overheads of such business models. An increase in the price of off-licence products relative to those sold through the on-licence trade is likely to boost demand for the latter. While the Australian Hotels Association have expressed opposition to the measure at the national level,¹⁰⁶ it has been suggested that a floor price would be supported by the NT Branch.¹⁰⁷ It is worth noting that most Canadian provinces have in place ‘minimum bar prices’, set at higher levels than those regulating prices at off-licence premises, to reduce the availability of cheap alcohol through on-licence premises.

SETTING A FLOOR PRICE

The availability of low-cost alcohol contributes disproportionately to alcohol harms, given heavy drinkers’ preference for such products.^{108,109} While alcohol harm may be reduced by policy measures that increase the price of alcohol across all product classes, price increases on cheap alcohol are likely to deliver the largest reductions. This underscores the key advantage of minimum prices; that they may be used to reduce the prevalence of cheap alcohol while leaving the prices of other products relatively unchanged. However, the level at which a floor price is set represents a trade-off between the magnitude of reduction in alcohol harm and the range of products (and therefore consumers) affected.

For this reason, a growing wealth of literature has examined the effect of minimum unit pricing with respect to its impact on consumption and associated harm. Research has also examined differential effects by consumption level and socioeconomic class, to investigate the extent to which the policy is able to target harmful consumers, and socioeconomic class to investigate impacts on low income drinkers. These studies have predominantly focussed on policy settings in the United Kingdom, where there has been interest and controversy surrounding legislation of a minimum unit price in Scotland, and in Canada, where floor prices are currently employed in many provinces. The literature provides insight into the effect of floor prices on alcohol consumption and may be used to inform policy development, particularly with respect to selection of an appropriate pricing level.

Policies that intend to influence the price of alcohol to reduce harm associated with its consumption are contingent on the extent to which a change in the price of alcohol products affects demand. A variety of factors influence such ‘price elasticity,’ including the nature of the product, consumer wealth, and consumption patterns. For this reason, price elasticity is of central importance to the effectiveness of such policies. Information relating to elasticity across different types of consumers and different products is also important to understanding the broader impacts of a floor price.

Selection of a threshold must consider the complex effects of setting a floor price, as well as the varied outcomes associated with different minimum price levels. Concern has been expressed that moderate drinkers may be

unfairly impacted, as those that choose to consume alcohol sold below a future floor price will be charged more following the introduction of such a policy. Similarly, it has been suggested that low-income drinkers may be disproportionately affected by a floor price given that cheap alcohol is likely to constitute a larger share of their consumption. A larger increase in spending relative to income among poorer drinkers would represent a regressive impact. A considerable body of research has attempted to examine the veracity of these claims.

DEMONSTRATED REDUCTIONS IN HARM

Research has demonstrated that the introduction of a floor price is associated with significant reductions in rates of alcohol harm. The best available evidence is provided by research examining the impact of changes to floor price levels in Canada. In British Columbia, a 10 per cent increase in the minimum price of alcohol was found to be associated with reductions in both short-term and long-term harm.¹¹⁰ In particular, the region observed an 8.9 per cent reduction in acute alcohol attributable admissions following the introduction of the scheme and a 9.2 per cent reduction in chronic alcohol-attributable admissions two years later.¹¹¹ Moreover, evidence suggests that alcohol-related fatalities are also reduced by minimum unit pricing. In particular, a 10 per cent increase in floor price levels in British Columbia was found to be associated with a 31.7 per cent reduction in wholly alcohol-attributable deaths.¹¹² That reductions in alcohol-related admissions and mortality were substantially larger than the reduction in overall consumption (3.4 per cent)¹¹³ reflects the strength of floor pricing schemes in targeting more harmful consumption while having limited impact on moderate consumers. In another Canadian province, Saskatchewan, research suggests that a 10 per cent increase in the level of a floor prices was associated with a larger (8.4 per cent) reduction in consumption. Other research investigated the impact of changes to the floor pricing regulations, including an average 9.1 per cent increase in the floor price level.¹¹⁴ It was found that these changes were associated with an immediate 8.0 per cent reduction in night-time alcohol-related traffic offences for men and a 19.7 per cent reduction in violence offences four months later.¹¹⁵

BALANCING REDUCED HARM WITH FINANCIAL BURDEN

One major advantage of a floor price over other pricing mechanisms, such as taxation, is its ability to lift the price of the cheapest alcohol while having limited effect on the price of other products. Although evidence suggests that cheap alcohol is disproportionately consumed by heavier consumers,^{116,117} it is likely that a smaller proportion of moderate consumers also choose products that currently sell at rates below proposed minimum prices. In addition, products that are sold for prices above a minimum unit price may also be affected in so far as producers are able to differentiate their product from lower grade beverages brought up the set price level. To the extent that moderate drinkers pay more under a floor price, the scheme may be seen to penalise such drinkers by increasing the cost of alcohol that they intend to consume responsibly. The degree to which cheap alcohol is consumed by harmful drinkers (relative to moderate drinkers) is therefore an important consideration in whether such a scheme is justified. Research examining this issue may also guide the selection of a minimum price, given that the relative impacts on moderate and harmful consumers are influenced by the level at which a floor price is set.

A large body of research has focussed on the extent to which a floor price can target and reduce consumption among those most at risk of short and long-term harm. Modelling of a £0.50 floor price in England found that the largest behavioural change would be observed among harmful drinkers, whose consumption would reduce by an estimated 5.4 per cent.¹¹⁸ Across all drinkers, results suggest that consumption would reduce by 2.5 per cent, with moderate drinkers impacted least with respect to both spending and consumption.¹¹⁹ Results suggest that consumption among moderate drinkers would decline by 1.0 per cent. Spending among this cohort would be expected to increase very marginally, by £2.55 per year.¹²⁰ These results are consistent with earlier research, which has suggested that harmful drinkers are more price-sensitive than moderate drinkers.¹²¹

This relationship has also been observed in Australia, where research has suggested that pricing policies are particularly effective for reducing consumption and alcohol-related harm among harmful drinkers. Australian research has examined the impact of several possible floor price thresholds by consumption level.¹²² Results from these studies have been generally consistent with earlier research, demonstrating that heavy drinkers are more likely to purchase low-cost alcohol. Findings suggest that hazardous drinkers (men consuming 14 to 41 standard drinks and women consuming 14 to 34 standard drinks per week, inclusive) were more likely to purchase alcohol products that cost below A\$1.00 and A\$1.25, but not A\$0.80 per standard unit. In other words, these drinkers appeared to favour relatively cheap drinks in comparison with moderate drinkers, but did not favour very cheap alcohol. For this reason, setting the price threshold too low will not effectively target these

drinkers. Those in the higher 'harmful' consumption class (men and women drinking greater than or equal to 42 standard drinks and 35 standard drinks per week, respectively) were found to consume a greater proportion of products below all thresholds examined. These results suggest that a floor price of A\$1.00 or A\$1.25 per standard drink would more effectively reduce consumption among hazardous and harmful drinkers.

IMPACT ON LOW INCOME CONSUMERS

Findings have generally indicated that increased spending among low-income families following the introduction of a floor price will be larger relative to their income, as cheap liquor represents a larger proportion of the alcohol consumed by low-income families.¹²³ In addition, an increase in absolute spending would represent a larger proportion of the income of low socioeconomic families. Results from one Australian study suggested that spending on beer, wine and spirits by individuals in the lowest-income quintile would increase by 2.7 per cent under a floor price of A\$1.00, while the spending increase for consumers in the highest-income quintile would be just 0.3 per cent.¹²⁴

Studies have also suggested that lower-income consumers are more responsive to price changes. While the largest increase in cost per capita would be observed among the lowest-income quintile under a A\$1.00 floor price (A\$280 per annum), consumption would reduce most markedly as well (by 11.5 standard drinks per week).¹²⁵ Research has suggested that a floor price of A\$2.00 would also result in a larger reduction in consumption among lower-income households. Consumption among the poorest 3.0 per cent of households would be expected to reduce by 0.9 units per day,¹²⁶ a smaller (0.2 unit per day) reduction would be expected among individuals between the 80th and 90th percentiles. Negligible change would be observed among consumers with incomes closer to average. Those between the 50th and 70th percentiles by income would be expected to reduce consumption by just 0.06 units per day.¹²⁷ Despite some evidence of regressive effects, these are likely to be relatively limited and are vastly outweighed by reductions in harm.^{128,129} Indeed, modelling has suggested that individuals in the lowest socioeconomic quintile (20 per cent) would accrue 81.8 per cent of reductions in premature deaths under a minimum unit price of £0.45 (A\$0.72) in the United Kingdom (UK). Such individuals would also accrue 87.1 per cent of benefits in terms of quality adjusted life years.¹³⁰

Drinkers in the lowest tercile were found to consume a higher proportion of low-cost alcoholic products than drinkers in the medium and high-income terciles only when the price threshold was set at A\$1.25. The effect was not observed when lower thresholds were set, suggesting that low-income drinkers would not be adversely affected by thresholds set at either A\$1.00 or A\$0.80. That these results reflect a regressive impact only at the higher price threshold of A\$1.25, these findings may suggest that consumption of very cheap alcohol is influenced more by consumption patterns than income class. Indeed research has suggested that heavy drinking is more strongly associated with consumption of cheap alcohol than socioeconomic class. Research suggests that the introduction of a minimum unit price would generate larger reductions in consumption among lower income heavy drinkers and considerably smaller impacts on lower-income moderate drinkers.^{131,132} In addition, given that poorer consumers are at greater risk of harm from heavy drinking,¹³³ larger benefits of a minimum unit price would flow to these individuals.

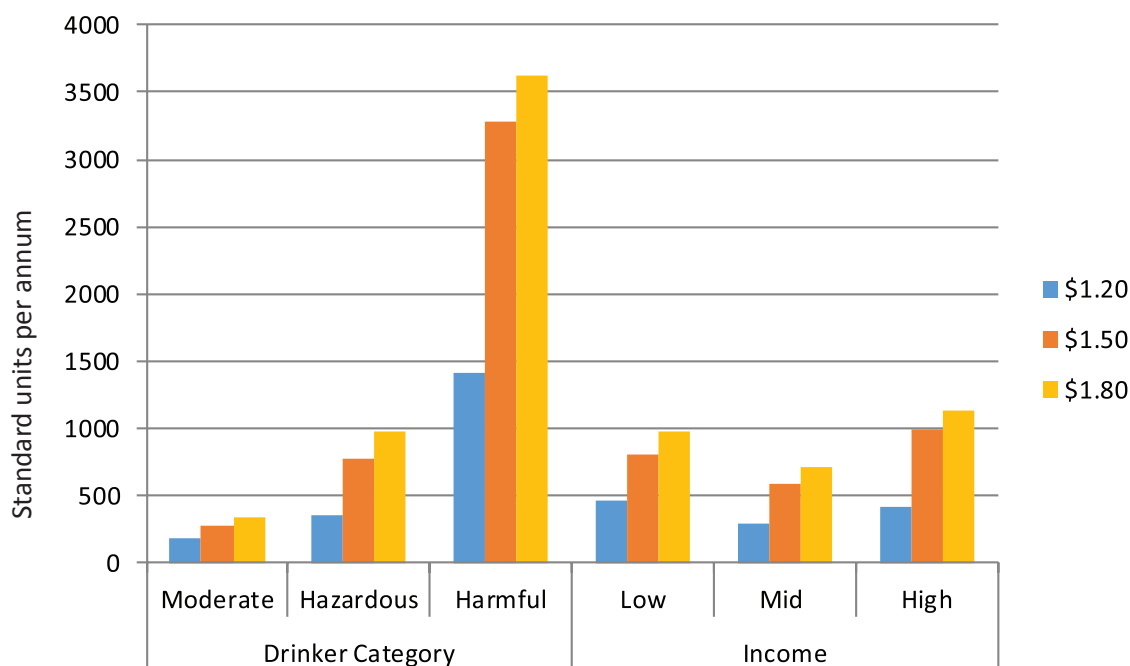
While research suggests that a floor price may place a modest burden on low-income consumers, this must be considered in the context of the associated reduction in harm. Where it can be demonstrated that the largest reductions will occur among the heaviest (and most harmful) drinkers, an increase in the cost of alcohol to low-income households may be justified. Despite this, the impact of a floor price on low-income households remains an important consideration in setting an appropriate price level. While a higher threshold will capture a larger proportion of products on the market (and therefore extend the impact of the floor price to products consumed by a greater number of higher-income individuals), a higher price would also increase the additional cost imposed on consumers of the cheapest products.

It is important to note that these studies have investigated the impact on consumers across Australia, reflecting price elasticities at national income levels. Given the NT has a markedly higher average income than the national rate (A\$1,402 and A\$1,164 per person per week in November 2016, respectively),¹³⁴ a higher minimum unit price may be warranted. In addition, higher rates have been advocated for by local community organisations¹³⁵ and have been used to great effect in Canadian provinces (where floor prices range between approximately A\$1.48 and A\$1.72).¹³⁶

To examine the impact of a minimum unit price set at A\$1.50 per standard unit, relative to one at a lower level of A\$1.20 or a higher level of A\$1.80, an analysis was undertaken to examine the impact of floor prices at these levels on drinkers by consumption category and income level. Results suggest that a price level of A\$1.50

captures a substantially larger proportion of off-license purchases by individuals consuming at hazardous and harmful levels than a floor price set at A\$1.20 (see Figure 6). Individuals consuming in the hazardous range reported purchasing an average of 769 units per annum at or below A\$1.50 each, and 350 at or below A\$1.20 (a difference of 419 or 54.5 per cent). Similarly, those consuming at rates that placed them in the harmful range reported purchasing an average of 3,283 standard units per annum at or below A\$1.50, and 1,413 at or below A\$1.20 (a difference of 1,870 or 57.0 per cent). In contrast, a smaller difference was observed between the proportion of purchases captured at these price levels among those consuming at moderate levels (276 compared with 183, for a difference of 94 units per annum or 34.1 per cent). This suggests that a floor price set at A\$1.50 is likely to yield a larger reduction in consumption among individuals drinking at hazardous and harmful levels than those consuming at moderate levels (though differing elasticities need to be taken into account). It is worth noting that the absolute number of standard units purchased by moderate drinkers is also markedly smaller compared with those consuming at rates that place them at increased risk of short and long-term harm.

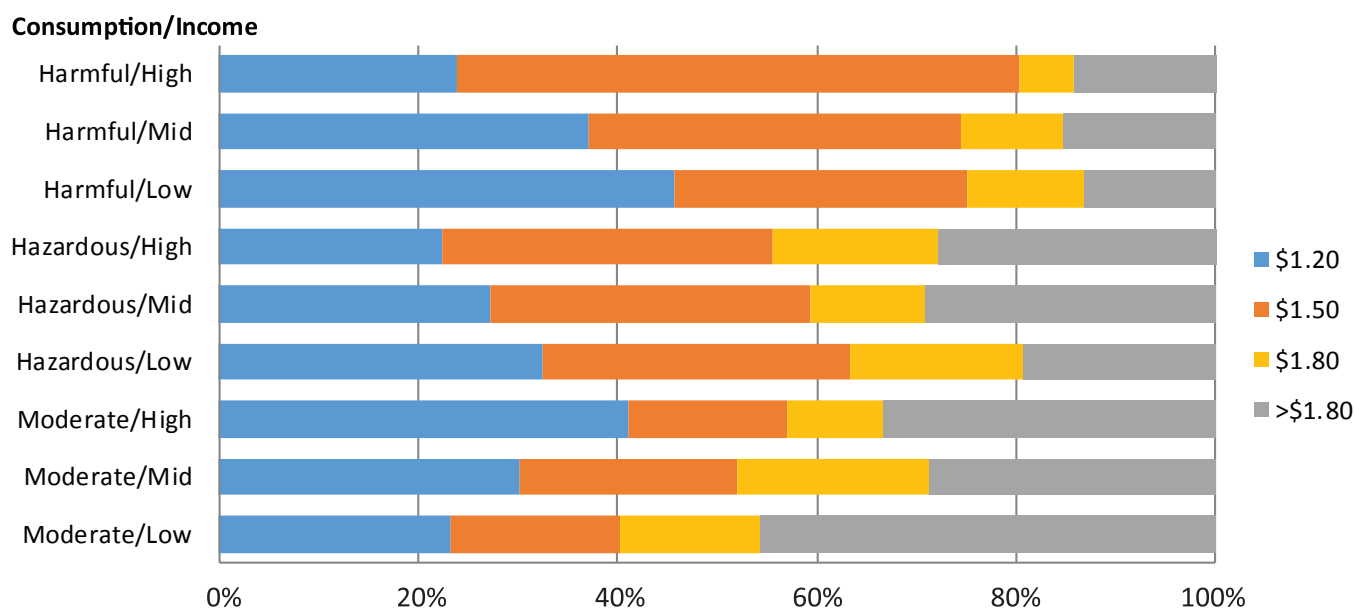
FIGURE 6 – OFF-LICENSE ALCOHOL CONSUMPTION BY PRICE LEVEL, DRINKER CATEGORY AND INCOME



Source: Calculations based on the International Alcohol Control study (Australia).

The data reveal an interesting interaction between income and consumption levels with respect to alcohol price preferences. In particular, hazardous and harmful consumers on lower incomes report high rates of consumption of cheap alcohol, while the opposite is true of those consuming at moderate levels (see Figure 7). This suggests that moderate consumers with low incomes tend to purchase beverages with prices above the proposed A\$1.50 threshold. In this way, a floor price may disproportionately impact low income consumers only when they are consuming at hazardous or harmful levels. Low income moderate consumers will be less affected than middle and high income moderate consumers.

FIGURE 7 – PROPORTIONS OF OFF-LICENSE ALCOHOL CONSUMPTION BY PRICE LEVEL, DRINKER CATEGORY AND INCOME



Source: Calculations based on the International Alcohol Control study (Australia).

Taken together, these findings suggest that a minimum unit price of A\$1.50 per standard unit would be most effective in targeting hazardous and harmful consumption, while having limited impact on moderate consumers. In addition, moderate low-income drinkers will be less affected by a floor price at this level than middle and high-income moderate drinkers. For these reasons, A\$ 1.50 is supported as an appropriate minimum price level for a standard unit of alcohol in the NT considering research findings, community expectations, local income levels and the success demonstrated with such schemes internationally.

LEGAL CONSIDERATIONS

Like other Australian states and territories, the NT has constitutional power to introduce a minimum unit price.¹³⁷ This provides the NT Government with capacity to address the high level of harm caused by alcohol across the territory while motivation at the Commonwealth level for meaningful action remains low. Several legislative instruments require that the benefits of a floor price outweigh costs. The National Competition Policy was established in 1995 by the Council of Australian Governments. The policy requires that legislation does not restrict competition unless it can be demonstrated that the benefits of the restriction as a whole outweigh the costs and that the objectives of the legislation can only be achieved by restricting competition.^{138,139}

Opponents to a minimum unit price in the UK have argued that competition is restricted under the scheme as a result of retailers' inability to compete through pricing.¹⁴⁰ If this argument is advanced in Australia, the established benefits of pricing mechanisms are likely to be sufficient to justify the introduction of a floor price. More significant challenges are likely to arise in demonstrating that the objectives can only be achieved by restricting competition in this manner. In particular, there are distinct advantages to fixing the inequitable and distorting alcohol tax system. Despite this, there are a handful of marked benefits of floor prices, including the relative small impact on beverages above the floor price threshold, as well as their ability to prevent loss-leading promotions.¹⁴¹ In addition, it could be argued that tax reform is outside the constitutional power of states and territories, including the NT, and that restriction of competition through minimum unit pricing may therefore be necessary.

Domestic trade law requires that trade between states and territories is "absolutely free" unless it may be demonstrated that interference is "reasonably necessary" to promote "public welfare".¹⁴² This will again require justification of the policy on the grounds that resultant benefits justify the effects on trade. Similarly, Australia would be in breach of international trade law if the setting of a floor price would provide special advantage to domestic products. Because the restriction would apply equally to domestic and international products, there are no concerns relating to these trade obligations.

While it may need to be demonstrated that the benefits of a floor price outweigh its costs, no legal barrier explicitly prevents its introduction. The NT may introduce the scheme while remaining compliant with domestic and international trade obligations. In addition, a floor price would not be considered in breach of competition policy if a net benefit may be demonstrated. Given the wealth of literature supporting pricing mechanisms as effective measures to reduce harm associated with alcohol consumption, the demonstration of benefits may be readily achieved.

REVENUE FLOW TO RETAILERS

Another limitation associated with floor prices is that increased revenue flows to industry bodies rather than to government. Because alcohol imposes larger costs on the public than it contributes in tax revenue, the case may be made for corrective taxes that simultaneously reduce consumption and increase revenue. However, rather than correcting this market failure by increasing the tax revenue associated with alcohol sales, businesses involved in the alcohol trade will benefit from increased profit under a floor price regime.

To minimise the distortion created by a floor price, the NT government should explore avenues for counterbalancing increased retailer revenues. Although tax measures would achieve this most effectively, such policy approaches are outside state and territory control. Instead, increased revenue may be achieved through changes to the licensing system. Increasing the annual fees charged for liquor licensing and ensuring that they are calibrated to the risk associated with different premises is one way for the NT government to achieve this. Such 'risk-based' licensing systems have been applied in several other jurisdictions, including the ACT, NSW, Queensland and Victoria.^{143,144,145} While these schemes vary, they typically take into account venue size, license type, trading hours and compliance history. By charging venues on the basis of the harm associated with their operation, businesses are held more accountable for the public expenses that they impose¹⁴⁶ and are actively incentivised to reduce rates of alcohol harm. Risk-based licensing in some ways represents an alternative or complement to tax, which may be used to effectively charge businesses according to the risk associated with their products. The effectiveness of these measures relies on the accuracy of risk calculations (i.e. how many factors are included to calibrate risk loading fees). The benefits of risk-based licensing schemes are also dependent on the extent to which they recover public costs associated with the alcohol industry's operation (i.e. how well costs related to licensing, regulation, healthcare and crime are balanced by government revenue from the industry).

IMPACTS ON DEPENDENT DRINKERS

Opposition to a minimum unit price in Scotland has been partly based on concern about the impact on dependent drinkers and their families,¹⁴⁷ and the potential for such drinkers to turn to other methods of feeding their addictions, including theft and other crime.¹⁴⁸ Individuals likely to be impacted most by an increase in price are implicitly those also standing to benefit most from reduced consumption. Physical dependence is likely to restrict elasticity and lead to smaller reductions in consumption (and therefore larger increases in financial burden). For this reason, it would be advisable to accompany the introduction of the floor price by adequate provisions to assist dependent drinkers to reduce their consumption.

It must be acknowledged that a floor price will serve as a preventive measure to reduce rates of alcohol dependence in the future. Through reduced access to cheap alcohol, fewer individuals will establish unhealthy relationships with alcohol and suffer the hardship associated with addiction. Several studies have examined the impact of price on outcomes suggestive of alcohol dependence. Overall, studies have suggested that price mechanisms are effective in reducing the long-term harms associated with chronic alcohol abuse.^{149,150,151} Mixed views have been expressed among dependent drinkers themselves. Although some have expressed strong opposition to the measure because they do not believe they will alter their consumption, others have suggested that the measure will be successful in reducing their intake.¹⁵²

Adequate support must be provided to assist dependent drinkers transition through the introduction of a floor price. Managed Alcohol Programs are one such policy measure that may be used to mitigate the impact of a floor price on the most severely dependent drinkers. These programs operate within homeless shelters and other short-term accommodation facilities, and involve dispensing a regulated amount of alcohol at set times to those with severe and intractable alcohol dependence.¹⁵³ Similar policies are currently in use in a variety of countries including Canada, the US, Norway, and the UK.¹⁵⁴

INCREASED NON-PRICE COMPETITION

It has been suggested that the introduction of a floor price will incentivise businesses to increase advertising and other 'non-price competition'.^{155,156} When the cost of a product is artificially increased by a floor price, a margin is created between the cost of production and sale price. Businesses that are not able to compete on the basis of price, which is fixed by the floor price, may use this margin to increase competition in other ways. One such alternative is marketing activities. A similar effect has been noted with respect to tobacco in the United States of America,¹⁵⁷ where direct marketing tactics appeared to increase following introduction of regulations inhibiting price competition.^{158,159} An increase in advertising may encourage higher rates of consumption and undermine the reduced consumption achieved through a minimum unit price.

Because increased profit will most likely be captured at the retailer level (with competition remaining among producers), it is likely that any increase in non-price competition would be observed among retailers, including supermarkets and liquor stores. The threat of increased non-price competition increases the need to ensure adequate regulation of alcohol advertising. Retail-level promotional activities would require particular attention, including restrictions on in-store promotions and shopper dockets. To ensure that promotional activity does not increase at the producer level as well, all alcohol advertising should be subject to adequate regulation. For example, the exemption that allows alcohol advertising during live daytime sporting broadcasts needs to be discontinued.

ENFORCEMENT

Parties involved in the retail of alcohol must be made aware of and remain informed regarding any changes to the floor price. Relevant parties would most easily be notified through the licensing system. Information relating to the floor price scheme would need to be provided to incumbent businesses ahead of introduction, and clearly articulated to new licensees. Once the scheme is well-established, licensees are likely to recognise it as part of the regulatory landscape in the NT.

Two factors in particular are likely to support high levels of compliance with a minimum unit price scheme. Firstly, the detection of breaches is an essential aspect of deterring licensees from selling alcoholic beverages below a specified floor price. The detection of breaches would be significantly improved by random inspection of premises. Inspectors and licensees would need to be able to identify floor prices that apply to different beverages based on their alcoholic content. While this is relatively easily set and checked in an off-licence setting, on-licence venues may experience more difficulty in identifying the exact alcoholic content of a particular beverage and calculating costs on this basis. Where drinks comprise a combination of several types of alcohol, for example, setting a price that meets the minimum unit price requirement would require calculation of combined alcoholic content. This would need to then be replicated upon inspection by regulators to confirm that the floor price has indeed been met. However it is designed, a floor price must apply to all alcoholic beverage classes and all retailers. While the scheme will have greatest impact on off-licence sales, it must also be enforced at on-premise venues as well and cover all retail transactions (including price discounting promotions and giveaways).

Given the complexity associated with calculating floor prices on drinks sold at on-licence venues, consideration may be given to applying a floor price at the wholesale rather than retail level. There are likely to be some complexities around this arrangement, including circumstances where there is no intermediary between producers and retailers (microbreweries, for example). However, in such settings producers will be in possession of information relating to the alcoholic content of their products to meet their tax responsibilities. In addition, given the large costs associated with improving detection of breaches, it is important that the gravity of repercussions also provide sufficient discouragement to non-compliance. While some contend that punishment need not be severe if it is swift and certain,¹⁶⁰ the costs associated with ensuring swiftness and certainty (i.e. in resources required for detection) suggest that a balance must be sought between these factors. As such, significant penalties should apply to licensees found in breach of the floor price.

MAINTAINING AN APPROPRIATE FLOOR PRICE LEVEL

With a few historical exceptions, floor prices are typically set in absolute rather than relative terms (unlike taxes). With inflation, a set level will reduce in real terms unless indexed in some manner. A floor price may be indexed based on several measures, including price (such as the Consumer Price Index, currently used to index beer and spirit excise), income, or another manner (such as the tax applied to a particular beverage type, for example).

Because income typically grows faster than inflation, indexing to Consumer Price Index would result in a reduction in the floor price relative to income. While increased affordability of many household items is desirable, a reduction in the real cost of alcohol and associated increased consumption will lead to adverse public health outcomes if not addressed. Because a floor price intends to control the level of harm associated with alcohol consumption, it would be logical that the level is indexed so as to remain constant in its effect. For this reason, it is preferable that minimum unit prices are attached to a measure of income, such as average weekly earnings.¹⁶¹

CONCLUSIONS

The increasing availability of cheap alcohol over the past 20 years has contributed to unacceptable levels of harm in Australian communities. With rates among the highest in the world, the harm caused by alcohol is more prominent in the NT than in any other Australian jurisdiction. While the Commonwealth Government fails to address the issue at its core, by reforming the defective alcohol tax system, the NT government must explore options to stem the harm caused by cheap alcohol. A minimum unit price presents an effective policy option, which may be used to target harmful consumption and reduce alcohol harms.

The threshold level established under a minimum unit price policy has significant implications for its effect. Price levels represent a balance between the amount of harm that may be reduced and the breadth of impact across alcohol products and their consumers. While a lower level presents a more targeted approach to stemming the supply of the cheapest alcohol, it will deliver a smaller reduction in harm than a higher price level. A price level of A\$1.50 per Australian standard drink represents a suitable threshold (based on international precedent), Australian research examining differential impacts by threshold level, and relative income levels in the NT. A floor price set at this level will serve to reduce the availability of cheap alcohol while minimising the impact on moderate drinkers.

Due to its limited impact on moderate drinkers and alcohol products above the set threshold, minimum unit pricing is likely to receive general public support. In addition, the policy is likely to receive support from alcohol retailers (such as the supermarkets), on-license venues and producers of mid-range and premium products. Community opposition will be confined to frequent consumers of cheap alcohol, who generally would stand to gain the most in health benefits from reduced consumption. In addition, opposition among producers will be limited to those manufacturing the lowest-cost alcohol (primarily cask wine producers from the Riverina in NSW).

Despite these advantages, a variety of limitations highlight the need to reform aspects of alcohol regulation in conjunction with the introduction of a minimum unit price. Regulation of marketing activities should be strengthened, including sponsorship of sporting events, point of sale promotions and advertising. In addition, adequate funding must be secured for support services to minimise any adverse impacts on dependent drinkers. Moreover, measures should be in place to support enforcement of the measure, including inspections and significant penalties for non-compliance. Finally, the floor price level should be indexed to maintain a constant level relative to wages. These challenges highlight the need for the NT government to work closely with the public health sector to ensure that a floor price is implemented with appropriate regulatory reforms. Minimum unit pricing, if appropriately implemented and accompanied by reform to the regulatory framework more generally, stands to improve the lives of individuals affected by alcohol harm in communities across the NT.

REFERENCES

- 1 Livingston, M. (2011). A longitudinal analysis of alcohol outlet density and domestic violence. *Addiction*, 106(5): 919–25.
- 2 Jochelson, R. (1997). *Crime and place: An analysis of assaults and robberies in Inner Sydney*. Sydney: New South Wales Bureau of Crime Statistics and Research (BOCSAR).
- 3 Briscoe, S., & Donnelly, N. (2001). Temporal and regional aspects of alcohol-related violence and disorder. *Alcohol Studies Bulletin*. Sydney: New South Wales Bureau of Crime Statistics and Research (BOCSAR).
- 4 Chikritzhs, T., & Stockwell, T. (2006). The impact of later trading hours for hotels on levels of impaired driver road crashes and driver breath alcohol levels. *Addiction*, 101(9): 1254–64.
- 5 Gao, C., Ogeil, R., & Lloyd, B. (2014). *Alcohol's burden of disease in Australia*. Canberra: Foundation for Alcohol Research and Education (FARE) and VicHealth in collaboration with Turning Point.
- 6 Gao, C., Ogeil, R., & Lloyd, B. (2014). *Alcohol's burden of disease in Australia*. Canberra: Foundation for Alcohol Research and Education (FARE) and VicHealth in collaboration with Turning Point.
- 7 Gao, C., Ogeil, R., & Lloyd, B. (2014). *Alcohol's burden of disease in Australia*. Canberra: Foundation for Alcohol Research and Education (FARE) and VicHealth in collaboration with Turning Point.
- 8 Gao, C., Ogeil, R., & Lloyd, B. (2014). *Alcohol's burden of disease in Australia*. Canberra: Foundation for Alcohol Research and Education (FARE) and VicHealth in collaboration with Turning Point.
- 9 Gao, C., Ogeil, R., & Lloyd, B. (2014). *Alcohol's burden of disease in Australia*. Canberra: Foundation for Alcohol Research and Education (FARE) and VicHealth in collaboration with Turning Point.
- 10 Loxley, W., Gilmore, W., Catalano, P., & Chikritzhs, T. (2016). *National alcohol sales data project (NASDP) Stage Five Report*. Perth: National Drug Research Institute (NDRI), Curtin University.
- 11 Department of the Attorney-General and Justice. (2016). NT wholesale alcohol supply for 2008–2015. *Northern Territory Government*. Retrieved from: <https://justice.nt.gov.au/attorney-general-and-justice/statistics-and-strategy/wholesale-alcohol-supply-data>
- 12 World Health Organization (2016). Global Health Observatory data repository. Recorded alcohol per capita consumption, from 2000. Last update: May 2016. Retrieved from: <http://apps.who.int/gho/data/node.main.A1026?lang=en?showonly=GISAH>
- 13 Australian Institute of Health and Welfare. (2014). *National Drug Strategy Household Survey 2013*. Retrieved from: <http://www.aihw.gov.au/alcohol-and-other-drugs/data-sources/ndshs-2013/>
- 14 Australian Institute of Health and Welfare. (2014). *National Drug Strategy Household Survey 2013*. Retrieved from: <http://www.aihw.gov.au/alcohol-and-other-drugs/data-sources/ndshs-2013/>
- 15 Australian Institute of Health and Welfare. (2014). *National Drug Strategy Household Survey 2013*. Retrieved from: <http://www.aihw.gov.au/alcohol-and-other-drugs/data-sources/ndshs-2013/>
- 16 Australian Institute of Health and Welfare. (2014). *Alcohol and other drug treatment services in Australia 2014–15*. Canberra: AIHW. Retrieved from: <http://www.aihw.gov.au/alcohol-and-other-drugs/aodts/>
- 17 Australian Institute of Health and Welfare. (2014). *Alcohol and other drug treatment services in Australia 2014–15*. Canberra: AIHW. Retrieved from: <http://www.aihw.gov.au/alcohol-and-other-drugs/aodts/>
- 18 Livingston, M. (2011). A longitudinal analysis of alcohol outlet density and domestic violence. *Addiction*, 106(5): 919–25.
- 19 Jochelson, R. (1997). *Crime and place: An analysis of assaults and robberies in Inner Sydney*. Sydney: New South Wales Bureau of Crime Statistics and Research (BOCSAR).
- 20 Briscoe, S., & Donnelly, N. (2001). Temporal and regional aspects of alcohol-related violence and disorder. *Alcohol Studies Bulletin*. Sydney: New South Wales Bureau of Crime Statistics and Research (BOCSAR).
- 21 Morrison, C., Smith, K., Gruenewald, P. J., Ponicki, W. R., Lee, J. P., & Cameron, P. (2016). Relating off-premises alcohol outlet density to intentional and unintentional injuries. *Addiction*, 111(1), 56–64.
- 22 Laslett, A.M., Mugavin, J., Jiang, H., Manton, E., Callinan, S., MacLean, S., & Room, R. (2015). *The hidden harm: Alcohol's impact on children and families*. Canberra: Foundation for Alcohol Research and Education.
- 23 Law Enforcement Assistance Program (LEAP) data extracted 18 July 2014, Victoria Police.
- 24 Northern Territory Department of the Attorney-General and Justice. (2014). *Northern Territory crime statistics*. Data through December 2013. Retrieved from: <http://www.pfes.nt.gov.au/~media/Files/Police/Crime-statistics/2013/NT%20crime%20statistics%20Dec%202013-pdf.ashx>
- 25 Cussen, T., & Bryant, W. (2015). *Domestic/family homicide in Australia. Research in Practice No 38 May 2015*. Canberra: Australian Institute of Criminology.
- 26 Laslett, A.M., Mugavin, J., Jiang, H., Manton, E., Callinan, S., MacLean, S., & Room, R. (2015). *The hidden harm: Alcohol's impact on children and families*. Canberra: Foundation for Alcohol Research and Education.
- 27 Laslett, A.M., Mugavin, J., Jiang, H., Manton, E., Callinan, S., MacLean, S., & Room, R. (2015). *The hidden harm: Alcohol's impact on children and families*. Canberra: Foundation for Alcohol Research and Education.
- 28 Office of the Northern Territory Children's Commissioner (2015). *Annual Report 2015–16*. Darwin, Office of the Children's Commissioner, Northern Territory Government.
- 29 Australian Department of Education and Training (2016). *Australian Early Development Census National Report 2015: A Snapshot of Early Childhood Development in Australia*. Canberra, Commonwealth of Australia.
- 30 Laslett, A.M., Mugavin, J., Jiang, H., Manton, E., Callinan, S., MacLean, S., & Room, R. (2015). *The hidden harm: Alcohol's impact on children and families*. Canberra: Foundation for Alcohol Research and Education.
- 31 Laslett, A., Catalano, P., Chikritzhs, T., Dale, C., Dora, C., Ferris, J., ... & Wilkinson, C. (2010). *The range and magnitude of alcohol's harm to others*. Canberra: Foundation for Alcohol Research and Education in collaboration with Turning Point, Centre for Alcohol Policy Research.
- 32 Northern Territory Police. (2016). *Northern Territory crime statistics – December 2016*. Retrieved from: <http://www.pfes.nt.gov.au/Police/Community-safety/Northern-Territory-crime-statistics/Statistical-publications.aspx>

- 33 Northern Territory Police. (2016). *Northern Territory crime statistics – December 2016*. Retrieved from: <http://www.pfes.nt.gov.au/Police/Community-safety/Northern-Territory-crime-statistics/Statistical-publications.aspx>
- 34 Australian Institute of Health and Welfare. (2014). *National Drug Strategy Household Survey 2013*. Retrieved from: <http://www.aihw.gov.au/alcohol-and-other-drugs/data-sources/ndshs-2013/>
- 35 Northern Territory Police. (2016). *Northern Territory crime statistics – January 2017*. Retrieved from: <http://www.pfes.nt.gov.au/Police/Community-safety/Northern-Territory-crime-statistics/Statistical-publications.aspx>
- 36 Babor, T. et al (2010). *Alcohol: No ordinary commodity. Second edition*. New York: Oxford University Press.
- 37 Rabinovich, L., Brutscher, P. B., de Vries, H., Tiessen, J., Clift, J., & Reding, A. (2009). The affordability of alcoholic beverages in the European Union. *Understanding the link between alcohol affordability, consumption and harms*. Cambridge: Rand Corporation.
- 38 Elder, R.W., Lawrence, B., Ferguson, A., Naimi, T.S., Brewer, R.D., Chattopadhyay, S.K., Toomey, T.L., Fielding, J.E., on Community Preventive Services, T.F., et al. (2010). The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. *American Journal of Preventive Medicine*, 38(2): 217–229.
- 39 Wagenaar, A. C., Tobler, A. L., & Komro, K. A. (2010). Effects of alcohol tax and price policies on morbidity and mortality: a systematic review. *American Journal of Public Health*, 100(11), 2270–2278.
- 40 Jiang, H., Callinan, S., Livingston, M. and Room, R. (2017). Off-premise alcohol purchasing in Australia: Variations by age group, income level and annual amount purchased. *Drug and Alcohol Review*, 36(2), 210–219.
- 41 Parliamentary Budget Office. (2015). Alcohol taxation in Australia: Report no. 03/2015, Parliament of Australia, Canberra. Retrieved from: http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Reports/Research_reports/Alcohol_taxation_in_Australia
- 42 Babor, T., et al (2010). *Alcohol: No ordinary commodity. Second edition*. New York: Oxford University Press.
- 43 Cobiac, L., Vos, T., Doran, C., & Wallace, A. (2009). Cost-effectiveness of interventions to prevent alcohol-related disease and injury in Australia. *Addiction*, 104, 1646–1655.
- 44 Babor, T., et al (2010). *Alcohol: No ordinary commodity. Second edition*. New York: Oxford University Press.
- 45 Babor, T., et al (2010). *Alcohol: No ordinary commodity. Second edition*. New York: Oxford University Press.
- 46 Holmes, J., et al. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: A modelling study. *Lancet* (Online) 383: 1655–64.
- 47 Jiang, H., Livingston, M., Room, R., & Callinan, S. (2016). Price elasticity of on-and off-premises demand for alcoholic drinks: A Tobit analysis. *Drug and alcohol dependence*, 163, 222–228.
- 48 Cobiac, L., Vos, T., Doran, C. & Wallace, A. (2009). Cost-effectiveness of interventions to prevent alcohol-related disease and injury in Australia. *Addiction*, 104, 1646–1655.
- 49 World Health Organization. (WHO) (2007). *Expert Committee on problems related to alcohol consumption 2007: Second report, technical report series no. 944, provisional edition*. Geneva: WHO. pp. 42–43.
- 50 Xuan, Z., Chaloupka, F.J., Blanchette, J.G., Nguyen, T.H., Heeren, T.C., Nelson, T.F. & Naimi, T.S. (2015). The relationship between alcohol taxes and binge drinking: Evaluating new tax measures incorporating multiple tax and beverage types. *Addiction*, 110(3), 441–450.
- 51 Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K. et al. (2010). *Alcohol: No ordinary commodity. Research and public policy* second edition. Oxford: Oxford University Press.
- 52 Wagenaar, A.C., Salois, M.J., & Komro, K.A. (2009). Effects of beverage alcohol price and tax levels on drinking: A meta-analysis of 1003 estimates from 112 studies. *Addiction*, 104: 179–90.
- 53 Henry, K., et al (2009). *Australia's future tax system (Henry Review) — Report to the Treasurer*. Canberra: Commonwealth of Australia.
- 54 Henry, K., et al. (2009) *Australia's future tax system (Henry Review) — Report to the Treasurer*. Canberra: Commonwealth of Australia. p 436–437.
- 55 Australian National Preventive Health Agency. (2012). *Draft report: Exploring the public interest case for a minimum (floor) for alcohol*. Canberra: Commonwealth of Australia. p 42.
- 56 Australian National Preventive Health Agency. (2012). *Draft report: Exploring the public interest case for a minimum (floor) for alcohol*. Canberra: Commonwealth of Australia. p 42.
- 57 Distilled Spirits Industry Council of Australia [DSICA]. (2012). *Pre-budget submission 2012-13*. Victoria: DSICA. Retrieved from: http://www.dsica.com.au/Library/PageContentFiles/7e8adb48-141d-498e-9fbb-0f1c49c2cb1d/DSICA_2012_13_Pre_Budget_Submission_Web_Version.pdf
- 58 Brewers Association. (2012). *Brewers Association supports ANPHA decision not to introduce minimum pricing*. Media release. Retrieved from: <http://www.brewers.org.au/wp-content/uploads/2012/11/Brewers-Association-Media-Release-Brewers-Supports-ANPHA-Decision-not-to-introduce-Minimum-Pricing.pdf>
- 59 IBISWorld. (2016). *Wine production in Australia – Industry Report C1214*.
- 60 Treasury Wine Estates. (2011). *Tax reform for a sustainable Australian wine industry*. Retrieved from: <http://www.treasury.gov.au/Policy-Topics/Taxation/Tax-Forum/Statements-and-Submissions/Submissions>
- 61 Locke, S. (2013). Largest wine company calls for scrapping of wine tax. *ABC Rural*. Retrieved from: <http://www.abc.net.au/news/2013-07-18/twe-slams-wet-tax/4827886>
- 62 Premium Wine Brands. (2011). *Premium Wine Brands' submission to Federal Government tax forum*. October 2011.
- 63 Oliver, J. (2013). *Tax reform and the broken model behind Australian wine*. Retrieved from: <http://www.onwine.com.au/tax-reform-and-the-broken-model-behind-australian-wine/>
- 64 National liquor news. (2012). *Westend Estate Wines*. Volume 31 number 1 February 2012.
- 65 Gray, D., Siggers, S., Atkinson, D., Sputore, B., & Bourbon, D. (2000). Beating the grog: an evaluation of the Tennant Creek liquor licensing restrictions. *Australian and New Zealand Journal of Public Health*, 24(1), 39–44.
- 66 Gray, D., Siggers, S., Drandich, M., Wallam, D., & Plowright, P. (1995). Evaluating government health and substance abuse programs for indigenous peoples: a comparative review. *Australian and New Zealand Journal of Public Health*, 19(6), 567–572.
- 67 Gray, D., Siggers, S., Drandich, M., Wallam, D., & Plowright, P. (1995). Evaluating government health and substance abuse programs for indigenous peoples: a comparative review. *Australian and New Zealand Journal of Public Health*, 19(6), 567–572.
- 68 Gray, D., Chikritzhis, T., & Stockwell, T. (1999). The Northern Territory's cask wine levy: health and taxation policy implications. *Australian and New Zealand Journal of Public Health*, 23(6), 651–653.

- 69 Gray, D., Saggars, S., Drandich, M., Wallam, D., & Plowright, P. (1995). Evaluating government health and substance abuse programs for indigenous peoples: a comparative review. *Australian and New Zealand Journal of Public Health*, 19(6), 567-572.
- 70 Gray, D., Chikritzhs, T., & Stockwell, T. (1999). The Northern Territory's cask wine levy: health and taxation policy implications. *Australian and New Zealand Journal of Public Health*, 23(6), 651-653.
- 71 Chikritzhs, T., Stockwell, T., & Pascal, R. (2005). The impact of the Northern Territory's Living With Alcohol program, 1992-2002: revisiting the evaluation. *Addiction*, 100(11), 1625-1636.
- 72 Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 73 Carragher, N., & Chalmers, J. (2011). What are the options? Pricing and taxation policy reforms to redress excessive alcohol consumption and related harms in Australia. *NSW Bureau of Crime Statistics and Research*. Retrieved from: <http://www.bocsar.nsw.gov.au/Documents/r59a.pdf>
- 74 Brewers Association of Canada. (2010). Submission to the *Scottish Parliament on the Alcohol (Scotland) Bill*. Retrieved from: <http://archive.scottish.parliament.uk/s3/committees/hs/inquiries/AlcoholBill/documents/019BrewersAssociationofCanadaBAC.pdf>
- 75 Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 76 Stockwell, T., Harford, L., Paszkowski, D., Thomas, G., Westcott, J., & Wettlaufer, A. (2015). Social Reference Prices for Alcohol: A Tool for Canadian Governments to Promote a Culture of Moderation. *Ottawa, ON: National Alcohol Strategy Advisory Committee, Canadian Centre on Substance Abuse*.
- 77 Stockwell, T. (April 4, 2014). Minimum alcohol pricing: Canada's accidental public health strategy. *The Conversation*. Retrieved from: <https://theconversation.com/minimum-alcohol-pricing-canadas-accidental-public-health-strategy-25185>
- 78 Sharma, A., Etilé, F., & Sinha, K. (2016). The effect of introducing a minimum price on the distribution of alcohol purchase: a counterfactual analysis. *Health economics*, 25(9), 1182-1200.
- 79 Stockwell, T., Zhao, J., Giesbrecht, N., Macdonald, S., Thomas, G., & Wettlaufer, A. (2012). The raising of minimum alcohol prices in Saskatchewan, Canada: impacts on consumption and implications for public health. *American Journal of Public Health*, 102(12), e103-e110.
- 80 Stockwell, T., Zhao, J., Sherk, A., Callaghan, R. C., Macdonald, S., & Gately, J. (2016). Assessing the impacts of Saskatchewan's minimum alcohol pricing regulations on alcohol-related crime. *Drug and Alcohol Review*.
- 81 Stockwell, T., Auld, M. C., Zhao, J., & Martin, G. (2012). Does minimum pricing reduce alcohol consumption? The experience of a Canadian province. *Addiction*, 107(5), 912-920.
- 82 Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., ... & Buxton, J. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: estimated impacts on alcohol-attributable hospital admissions. *American journal of public health*, 103(11), 2014-2020.
- 83 Zhao, J., Stockwell, T., Martin, G., Macdonald, S., Vallance, K., Treno, A., ... & Buxton, J. (2013). The relationship between minimum alcohol prices, outlet densities and alcohol-attributable deaths in British Columbia, 2002-09. *Addiction*, 108(6), 1059-1069.
- 84 Zhao, J., and Stockwell, T. (2017) The impacts of minimum alcohol pricing on alcohol attributable morbidity in regions of British Colombia, Canada with low, medium and high mean family income. *Addiction*, doi: 10.1111/add.13902.
- 85 Zhao, J., and Stockwell, T. (2017) The impacts of minimum alcohol pricing on alcohol attributable morbidity in regions of British Colombia, Canada with low, medium and high mean family income. *Addiction*, doi: 10.1111/add.13902.
- 86 BBC News. (May 14, 2012). Scottish government seeks minimum alcohol price of 50p per unit. *BBC News*. Retrieved from: <http://www.bbc.com/news/uk-scotland-18052849>
- 87 Roden, A. (September 4, 2015). Nicola Sturgeon's plan for a minimum alcohol price on rocks after European court finds they could infringe free trade rules. *The Daily Mail*. Retrieved from: <http://www.dailymail.co.uk/news/article-3221966/Nicola-Sturgeon-s-plans-50p-unit-minimum-alcohol-price-rocks-European-court-finds-infringe-free-trade-rules.html>
- 88 Meng, Y., Hill-McManus, D., Brennan, A., & Meier, P. (2012). Model-based appraisal of Alcohol Minimum Pricing and Off-Licensed trade discount bans in Scotland using the Sheffield Alcohol Policy Model (v 2): Second Update based on newly available data. Sheffield: SCHARR, *University of Sheffield*.
- 89 Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 90 Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 91 Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 92 Chick, J. (2010). What Price for an Extra-ordinary Commodity? *Alcohol and Alcoholism*, 45(5), 401-402.
- 93 Carragher, N., & Chalmers, J. (2011). What are the options? Pricing and taxation policy reforms to redress excessive alcohol consumption and related harms in Australia. *NSW Bureau of Crime Statistics and Research*. Retrieved from: <http://www.bocsar.nsw.gov.au/Documents/r59a.pdf>
- 94 BBC News. (December 21, 2016). Scotch Whiskey Association allowed minimum pricing appeal. *BBC News*. Retrieved from: <http://www.bbc.com/news/uk-scotland-38390535>
- 95 Australian National Preventive Health Agency. (2012). *Exploring the public interest case for a minimum (floor) price for alcohol. Issues paper*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 96 Global Agriculture Information Network. (2015). Vodka Excise Tax and Minimum Set Price Rates for 2015. *USDA Foreign Agricultural Service*. Retrieved from: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vodka%20Excise%20Tax%20and%20Minimum%20Set%20Price%20Rates%20for%202015_Moscow%20ATO_Russian%20Federation_2-3-2015.pdf
- 97 Global Agriculture Information Network. (2015). Vodka Excise Tax and Minimum Set Price Rates for 2015. *USDA Foreign Agricultural Service*. Retrieved from: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vodka%20Excise%20Tax%20and%20Minimum%20Set%20Price%20Rates%20for%202015_Moscow%20ATO_Russian%20Federation_2-3-2015.pdf
- 98 Leask, D., (Mar 1, 2017). Russia sticks with minimum pricing. *The Herald (Scotland)*. Retrieved from: http://www.heraldscotland.com/politics/referendumnews/15123075.Russia_sticks_with_minimum_pricing/
- 99 Global Agriculture Information Network. (2015). Vodka Excise Tax and Minimum Set Price Rates for 2015. *USDA Foreign Agricultural Service*. Retrieved from: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vodka%20Excise%20Tax%20and%20Minimum%20Set%20Price%20Rates%20for%202015_Moscow%20ATO_Russian%20Federation_2-3-2015.pdf
- 100 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.

- 101 Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 102 Centre for Economic and Business Research. (2009). *Minimum Alcohol Pricing: A targeted measure?* Final report. Retrieved from: <http://80.82.117.178/wp-content/uploads/Minimum-Pricing-Final-report-June-2009.pdf>
- 103 Griffith, R., & Leicester, A. (2010). *The impact of introducing a minimum price on alcohol in Britain*. Institute for Fiscal Studies, IFS Briefing note 109. Retrieved from: <https://www.ifs.org.uk/bns/bn109.pdf>
- 104 Centre for Economics and Business Research, (2009). *Minimum Unit Pricing: A targeted measure?* Final Report. As cited in: Australian National Preventive Health Agency. (2012). Exploring the public interest case for a minimum (floor) price for alcohol. *Alcohol Tobacco and Other Drug Association*. Retrieved from: <http://www.atoda.org.au/wp-content/uploads/ANPHA-Minimum-floor-price-for-alcohol-paper.pdf>
- 105 Walsh, C. (March 15, 2017). Gunner says he would support a volumetric tax that would apply to each unit of alcohol sold. *NT News*. Retrieved from: <http://www.ntnews.com.au/business/gunner-says-he-would-support-a-volumetric-tax-that-would-apply-an-excise-to-each-unit-of-alcohol-sold/news-story/6dbb9fa9de43571193c154054a77469d>
- 106 Australian Hotels Association. (2012). *Submission in relation to: Exploring the public interest case for minimum (floor) price for alcohol – Issues Paper*. Retrieved from: <http://aha.org.au/wp-content/uploads/2011/04/Submission-ANPHA-Minimum-Price-310712.pdf>
- 107 Breen, J. (January 30, 2017). Political donations under fire after NT hotels boss confirms \$100k gift to Labor Country Liberals. *ABC News*. Retrieved from: <http://www.abc.net.au/news/2017-01-30/fresh-call-for-ban-on-political-donations-in-nt/8222568>
- 108 Wall, M., Casswell, S., & Yeh, L.-C. (2017). Purchases by heavier drinking young people concentrated in lower priced beverages: Implications for policy. *Drug and Alcohol Review*, doi: 10.1111/dar.12495.
- 109 Callinan, S., Room, R., Livingston, M., & Jiang, H. (2015). Who purchases low-cost alcohol in Australia? *Alcohol and Alcoholism*, 50(6), 647-653.
- 110 Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., ... & Buxton, J. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: estimated impacts on alcohol-attributable hospital admissions. *American journal of public health*, 103(11), 2014-2020.
- 111 Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., ... & Buxton, J. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: estimated impacts on alcohol-attributable hospital admissions. *American journal of public health*, 103(11), 2014-2020.
- 112 Zhao, J., Stockwell, T., Martin, G., Macdonald, S., Vallance, K., Treno, A., ... & Buxton, J. (2013). The relationship between minimum alcohol prices, outlet densities and alcohol-attributable deaths in British Columbia, 2002–09. *Addiction*, 108(6), 1059-1069.
- 113 Stockwell, T., Auld, M. C., Zhao, J., & Martin, G. (2012). Does minimum pricing reduce alcohol consumption? The experience of a Canadian province. *Addiction*, 107(5), 912-920.
- 114 Stockwell, T., Zhao, J., Sherk, A., Callaghan, R. C., Macdonald, S., & Gatley, J. (2016). Assessing the impacts of Saskatchewan's minimum alcohol pricing regulations on alcohol-related crime. *Drug and Alcohol Review*.
- 115 Stockwell, T., Zhao, J., Sherk, A., Callaghan, R. C., Macdonald, S., & Gatley, J. (2016). Assessing the impacts of Saskatchewan's minimum alcohol pricing regulations on alcohol-related crime. *Drug and Alcohol Review*.
- 116 Wall, M., Casswell, S., & Yeh, L.-C. (2017). Purchases by heavier drinking young people concentrated in lower priced beverages: Implications for policy. *Drug and Alcohol Review*, doi: 10.1111/dar.12495.
- 117 Callinan, S., Room, R., Livingston, M., & Jiang, H. (2015). Who purchases low-cost alcohol in Australia? *Alcohol and Alcoholism*, 50(6), 647-653.
- 118 Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., ... & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *The Lancet*, 383(9929), 1655-1664.
- 119 Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., ... & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *The Lancet*, 383(9929), 1655-1664.
- 120 Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., ... & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *The Lancet*, 383(9929), 1655-1664.
- 121 Farrell, S., Manning, W. G., & Finch, M. D. (2003). Alcohol dependence and the price of alcoholic beverages. *Journal of Health Economics*, 22(1), 117-147.
- 122 Callinan, S., Room, R., Livingston, M., & Jiang, H. (2015). Who purchases low-cost alcohol in Australia? *Alcohol and Alcoholism*, 50(6), 647-653.
- 123 Callinan, S., Room, R., Livingston, M., & Jiang, H. (2015). Who purchases low-cost alcohol in Australia? *Alcohol and Alcoholism*, 50(6), 647-653.
- 124 Vandenberg, B., & Sharma, A. (2015). Are alcohol taxation and pricing policies regressive? Product-level effects of a specific tax and a minimum unit price for alcohol. *Alcohol and Alcoholism*, agv133.
- 125 Vandenberg, B., & Sharma, A. (2015). Are alcohol taxation and pricing policies regressive? Product-level effects of a specific tax and a minimum unit price for alcohol. *Alcohol and Alcoholism*, agv133.
- 126 Sharma, A., Etilé, F., & Sinha, K. (2016). The effect of introducing a minimum price on the distribution of alcohol purchase: a counterfactual analysis. *Health economics*, 25(9), 1182-1200.
- 127 Sharma, A., Etilé, F., & Sinha, K. (2016). The effect of introducing a minimum price on the distribution of alcohol purchase: a counterfactual analysis. *Health economics*, 25(9), 1182-1200.
- 128 Vandenberg, B., & Sharma, A. (2015). Are alcohol taxation and pricing policies regressive? Product-level effects of a specific tax and a minimum unit price for alcohol. *Alcohol and Alcoholism*, agv133.
- 129 Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., ... & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *The Lancet*, 383(9929), 1655-1664.
- 130 Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., ... & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *The Lancet*, 383(9929), 1655-1664.
- 131 Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., ... & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *The Lancet*, 383(9929), 1655-1664.
- 132 Jiang, H., Callinan, S., Livingston, M., & Room, R. (2017). Off-premise alcohol purchasing in Australia: Variations by age group, income level and annual amount purchased. *Drug and Alcohol Review*, 36(2), 210-219.
- 133 Katikireddi, S.V., Whitley, E., Lewsey, J., Gray, L., & Leyland, A.H. Socioeconomic status as an effect modifier of alcohol consumption and harm: analysis of linked cohort data. *The Lancet Public Health*. Advance online publication. doi: [http://dx.doi.org/10.1016/S2468-2667\(17\)30078-6](http://dx.doi.org/10.1016/S2468-2667(17)30078-6).
- 134 Australian Bureau of Statistics. (2017). *Catalogue Number - 6302.0 Average Weekly Earnings, Australia, November 2016*. Retrieved from: <http://www.abs.gov.au/ausstats/abs@.nsw/mf/6302.0>

- 135 People's Alcohol Action Coalition. (n.d.). *Turning Down the Tap to Bring Down the Harm: What Works is What We Want*. Retrieved from: http://www.paac.org.au/html/what_works.html
- 136 Stockwell, T., Harford, L., Paszkowski, D., Thomas, G., Westcott, J., & Wettlaufer, A. (2015). *Social Reference Prices for Alcohol: A Tool for Canadian Governments to Promote a Culture of Moderation*. Ottawa, ON: National Alcohol Strategy Advisory Committee, Canadian Centre on Substance Abuse.
- 137 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 138 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 139 Competition Principles Agreement (1995). Canberra: Government of Australia.
- 140 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 141 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 142 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 143 Mathews, R., & Legrand, T. Risk-based licensing and alcohol-related offences in the Australian Capital Territory. In: Manton, E., Room, R., Giorgi, C., & Thorn, M., Editors. (2014). *Stemming the tide of alcohol: liquor licensing and the public interest*. Canberra: Foundation for Alcohol Research & Education in collaboration with The University of Melbourne. p. 149-57.
- 144 Roth, L., & Angus, C. (2015). Liquor licensing restrictions to address alcohol-related violence in NSW: 2008 to 2014. *e-brief 2/2015. NSW Parliamentary Research Service*. Retrieved from: <https://www.parliament.nsw.gov.au/researchpapers/Documents/liquor-licensing-restrictions-to-address-alcohol/Liquor%20licensing%20restrictions%20to%20address%20alcohol-related%20violence%20in%20NSW%202008%20to%202014.pdf>
- 145 Liquor Amendment Act 2014 No 3 (NSW).
- 146 NSW Department of Justice. (2016). *Liquor law review background paper*. Retrieved from: <http://www.justice.nsw.gov.au/justicepolicy/Documents/background-paper-stat-review-lockouts-last-drinks-1.pdf>
- 147 Lonsdale, A., Hardcastle, S., & Hagger, M. (2012). A minimum price per unit of alcohol: A focus group study to investigate public opinion concerning UK government proposals to introduce new price controls to curb alcohol consumption. *BMC Public Health* 12(1), 1023.
- 148 Alcohol Focus Scotland. (n.d.). Minimum Pricing for Alcohol – The Facts. Retrieved from: <http://www.alcohol-focus-scotland.org.uk/media/77997/Minimum-pricing-factsheet.pdf>
- 149 Farrell, S., Manning, W. G., & Finch, M. D. (2003). Alcohol dependence and the price of alcoholic beverages. *Journal of Health Economics*, 22(1), 117-147.
- 150 Sloan, F. A., Reilly, B. A., & Schenzler, C. (1994). Effects of prices, civil and criminal sanctions, and law enforcement on alcohol-related mortality. *Journal of studies on alcohol*, 55(4), 454-465.
- 151 Cook, P. J., & Tauchen, G. (1982). The effect of liquor taxes on heavy drinking. *The Bell Journal of Economics*, 379-390.
- 152 O'May, F., Gill, J., Black, H., Rees, C., Chick, J., & McPake, B. (2016). Heavy drinkers' perspectives on minimum unit pricing for alcohol in Scotland: A qualitative interview study. *Sage open*, 6(3), 2158244016657141.
- 153 Foundation for Alcohol Research and Education. (2015). *Feasibility of a Managed Alcohol Program (MAP) for Sydney's homeless*. Retrieved from: <http://fare.org.au/2015/11/feasibility-of-a-managed-alcohol-program-map-for-sydneys-homeless/>
- 154 Foundation for Alcohol Research and Education. (2015). *Feasibility of a Managed Alcohol Program (MAP) for Sydney's homeless*. Retrieved from: <http://fare.org.au/2015/11/feasibility-of-a-managed-alcohol-program-map-for-sydneys-homeless/>
- 155 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 156 Scottish Government. (2012). *Framework for action: Changing Scotland's relationships with alcohol. Final Business and Regulatory Impact Assessment for Minimum Price per Unit of Alcohol Contained in Alcohol (Minimum Pricing) Scotland Bill*. Retrieved from <http://www.scotland.gov.uk/Resource/0039/00395549.pdf>
- 157 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 158 Kim, A., & Renaud, J. (2010). *Ad Hoc Report # 6: Direct-to-consumer tobacco marketing strategies: An exploratory analysis. Prepared for the Bureau of Tobacco Prevention Program, Division of Health Access and Tobacco, Florida Department of Health*. Retrieved from <http://doh.state.fl.us/tobacco/PDFFiles/Exploratory-Analysis-Direct-to-ConsumerTobaccoMarketingStrate.pdf>
- 159 Chalmers, J., Carragher, N., Davoren, S., & O'Brien, P. (2013). Real or perceived impediments to minimum pricing of alcohol in Australia: public opinion, the industry and the law. *International Journal of Drug Policy*, 24(6), 517-523.
- 160 Kleiman, M.A. (2013). Smart on crime. *Democracy*, (28), 51. http://botecanalysis.com/pdf/smart_on_crime.pdf
- 161 Australian Bureau of Statistics. (2017, February 23). *Catalogue Number 6302.0 Average Weekly Earnings, Australia, November 2016*. Retrieved from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/6302.0>



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ISBN 978-0-6480852-0-1