

Advisory Panel on Substance Misuse (APoSM)

MINIMUM UNIT PRICING: A REVIEW OF ITS POTENTIAL IN A WELSH CONTEXT

July 2014



Acknowledgements

The APoSM wishes to thank the organisations and individuals who gave their valuable time and attended the evidence gathering day, as well as submitting written representations.

In particular we wish to thank Professors Routledge and Parrott for their valuable contributions as co-opted members of the MUP Sub-Committee. APoSM was most ably served by Tracey Breheny, Gareth Hewitt, Alison Thomas, Julia Huish and Daryl Kent from the secretariat.

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Welsh Government

Eich cyf/Your ref
Ein cyf/Our ref
Kyrie LI James
Chair of APoSM
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Dear Kyrie

6 January 2013

Thank you for your letter dated 18th December seeking my agreement to finalise the rolling work programme of the Advisory Panel on Substance Misuse (APoSM). I too found our meeting extremely valuable.

I am content to agree the work programme as outlined in your letter and can confirm my expectations around the timetables for the individual pieces of work below:

1. *APoSM to review the literature on Minimum Unit Pricing (MUP), offering views on its relevance to Wales and to advise on what further work could be undertaken by the Welsh Government to augment or strengthen the work on alcohol availability. (May 2014)*
2. *APoSM to provide advice on the Welsh Government policy response to the increase in the number of drug related deaths relating to Tramadol and other Prescription Only Medicines. (December 2014)*
3. *APoSM to provide advice on the issues to be taken into consideration and the policy interventions necessary to tackle substance misuse in an ageing population. (May 2015)*

The advice that APoSM provides on these policy areas will support the development of the evidence base for Wales and be pivotal in informing the Welsh Government policy response.

I would like to thank you for the work that you have undertaken to reconstitute and strengthen APoSM to date and for using your networks to co-opt specialist expertise onto the Panel. I have no doubt that the Panel is in better shape to deliver on the

tasks set out within the work programme and look forward to receiving timely advice on these important issues.

Mark Drakeford AC / AM

Y Gweinidog Iechyd a Gwasanaethau Cymdeithasol
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18th July 2014

Dear Minister

Thank you for your previous correspondence in which you agreed with the proposal put forward by APoSM to review the issue of Minimum Unit Pricing in a Welsh context, with a view to augmenting the work of the Welsh Government regarding evidence-based policies concerning alcohol.

APoSM held an evidence-gathering day and received written representations from a number of community, health and expert bodies, as well as the industry, to identify, capture and address relevant concerns. The contributors were generous in giving their time and sharing their knowledge. I was impressed with the commitment of the members of the MUP sub-committee and the positive teamwork involved in production of our first report by the newly constituted APoSM.

In summary the evidence shows that the introduction of minimum unit pricing would 'exquisitely target' the most vulnerable groups in our communities and ameliorate the negative impacts of alcohol misuse.

On the basis of the available evidence, the members of APoSM unanimously recommend the following:

1. The Welsh Government should introduce minimum unit pricing to address alcohol-related harm in the vulnerable groups most affected by hazardous and harmful levels of drinking.
2. The establishment of an independent MUP Review Committee.
3. The work of the MUP Review Committee should be supported by the compilation of relevant data.
4. On-going research regarding the impact and efficacy of the MUP policy is required.

Please accept my apologies for the slight delay in getting this report to you which was primarily down to IT compatibility issues between the various contributors and some restrictions on the material that could be accessed through the Welsh Government network.

I hope our report is a useful contribution to the Welsh Government's alcohol strategy and of help to our communities. I would welcome discussing our findings with you.

Yours sincerely

A handwritten signature in black ink, appearing to read 'KLI James', is displayed on a light purple rectangular background.

Kyrie LI James
APoSM CHAIR

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Executive Summary

‘Alcohol problems are preventable . . . cheaper drinks are favoured by those who drink hazardously or harmfully, and MUP would therefore have a disproportionate targeting effect on problematic drinking, reducing alcohol problems and thus achieving health and other benefits for individuals and for society as a whole’.

Minimum unit pricing: a review of its potential in a Welsh context,
APoSM report, July 2014

This report is from the Advisory Panel on Substance Misuse, a Welsh Government sponsored body established in 2000 and newly constituted in July 2013. As an independent expert advisory body, the Panel advises the Minister for Health and Social Services on measures to prevent or reduce substance misuse in the context of the Welsh Government’s Substance Misuse Strategy 2008-2018. This report addresses alcohol.

In recent years alcohol has become steadily more affordable; it is cheaper in real terms and most people have higher disposable incomes. As the demand for alcohol is sensitive to the price, the prevalence of alcohol misuse - and therefore alcohol-related physical and social harms - have also increased over this period. It is a serious and increasing public health problem, associated with a range of physical and mental harms. Wales, with 504 alcohol-related deaths in 2012, continues to have higher rates of alcohol-related deaths than England. Although males drink more and suffer more negative direct alcohol-related harms, women and young people are also affected. The misuse of alcohol can affect not only the drinker but also others. Society as a whole suffers the cost of alcohol-related violence, road traffic accidents, local authority placements of children from families suffering alcohol-abuse, and the cost of health care, etc. Alcohol misuse is also associated with social deprivation.

Alcohol problems are preventable. However, the methods generally favoured by the industry (such as public service campaigns and voluntary self-regulation) are largely ineffective. Increased price and controls on availability (coupled with marketing restrictions, better consumer information and appropriate education are likely to be more effective. The Welsh Government does not have devolved powers to increase taxes on alcohol, but could introduce a minimum price for a unit of alcohol.

Real-world evidence and economic modelling indicates that a minimum unit price (MUP) would be effective in reducing hazardous and harmful alcohol consumption. It would not affect all alcoholic drinks (most on-licence sales would be unaffected), but would increase the price of those alcoholic beverages that are currently relatively under-priced or discounted. Cheaper drinks are favoured by those who drink hazardously or harmfully, and MUP would therefore have a disproportionate targeting effect on problematic drinking, reducing alcohol problems and thus

achieving health and other benefits for individuals and for society as a whole. MUP targets those drinking alcohol more harmfully or hazardously. The effects of MUP would be different for different subgroups of the population; although MUP would affect low-income heavy drinkers more than those with higher incomes, most people on low incomes are not heavy drinkers and would be almost unaffected. Some young drinkers would be affected by MUP.

While MUP (and the evidence for it) has been criticised, the evidence base is extensive, and the modelling of the effects of MUP in a UK context is well-founded and robust. Taking into account all the circumstances and the evidence presented to the Panel, APoSM's view is that MUP is an effective mechanism through which alcohol-related harm can be addressed.

The main recommendations in this Report are:

1. The Welsh Government should introduce minimum unit pricing to address alcohol-related harm in the vulnerable groups most affected by hazardous and harmful levels of drinking.
2. The establishment of an independent MUP Review Committee.
3. The work of the MUP Review Committee should be supported by the compilation of relevant data.
4. On-going research regarding the impact and efficacy of the MUP policy is required.

1. Introduction

APoSM is to review the literature on Minimum Unit Pricing (MUP), offering views on its relevance to Wales and to advise on what further work could be undertaken by the Welsh Government to augment or strengthen the work on alcohol availability

Mark Drakeford AC/AM
Y Gweinidog Iechyd a Gwasanaethau Cymdeithasol
Minister for Health and Social Services
6 January 2014

1.1 The Advisory Panel on Substance Misuse

The Advisory Panel on Substance Misuse (APoSM) is a Welsh Government Sponsored Body established under general executive powers of the Welsh Ministers¹ and funded by the Welsh Government. It was established in 2000 and in July 2013 was newly constituted to clarify its remit and role.

The Panel is an independent expert advisory body whose remit is to advise the Minister for Health and Social Services on measures to prevent or reduce substance misuse, the associated health and social harms and review implementation of the Welsh Government's Substance Misuse Strategy 2008-2018.

The Panel reports to the Minister for Health and Social Services to advise the Government in relation to exercising their public health functions concerning substance misuse issues, and where appropriate, to advise on relevant non-devolved matters. It provides advice on matters referred to it by the Minister and of its own volition as part of the Panel's annual work programme. The Panel's advice is provided to support an evidence-based approach to policy making.

Panel Members have scientific, research and practitioner skills and expertise drawn *inter alia* from psychiatry, psychology, pharmacology, epidemiology and criminology. In addition, there are nominated representatives from the non-devolved prison, police and probation services.

1.2 The sub-committee on minimum unit pricing

The APoSM at its corporate meeting on 23 September 2013 identified a number of important work projects to review based on the main substance misuse issues facing our communities. One proposal was to review the issue of MUP in a Welsh context to augment the work of the Welsh Government regarding evidence-based policies

¹ Sections 1 and 2 National Health Service (Wales) Act 2006, and sections 60(1)(b) and 71 Government of Wales Act 2006.

concerning alcohol. On 6 January 2014, the Minister agreed to this work being undertaken as part of the work programme identified by APoSM.

The Minimum Unit Pricing Sub-Committee was established and its first meeting was held on 15 January 2014. APoSM held an evidence-gathering day on 14 February 2014 and received written representations from a number of community, health and expert bodies, as well as from parts of the alcohol industry, to identify, capture and address relevant concerns.²

The Sub-Committee scoped the academic literature on MUP, considering the key peer-reviewed papers in this field, as well as some non-peer-reviewed publications. While there was neither the time, nor resources to conduct a complete review, the Sub-Committee is confident that it has considered the range of evidence and arguments for and against minimum pricing. It also looked at evidence and arguments about other ways of tackling alcohol-related problems.

² The list of participants is provided in Annex B

2. Alcohol³

‘Alcohol misuse accounted for over 5,000 deaths in England and Wales in each of the last ten years, denoting a serious and increasing public health problem – but also one which is preventable . . .

Wales continues to have higher rates of alcohol-related deaths than England in both males and females . . .

In Wales there is a clear upward trend in the number of alcohol-related deaths due to alcoholic liver disease.’

Office for National Statistics 2013

2.1 How does it work?

Alcohol (known in scientific terms as ethyl alcohol or ethanol) has an overall depressant effect on the central nervous system giving rise to loss of inhibition and changes in mood, resulting in the short term in increased self-confidence and euphoria. These may be followed at higher doses by loss of motor coordination, including slurring of speech, unsteadiness and delayed reaction time, as well as depressed affect. At very high doses drowsiness, unconsciousness and ultimately death can occur.⁴

The depressant effects of other drugs such as anxiolytics and hypnotics, antidepressants, antipsychotic drugs and opioids may be significantly enhanced if consumed with alcohol. This can result in an increased risk of a fatal outcome such as poisoning if taken together with these drugs.

Alcohol can also cross the placenta; blood alcohol concentrations recorded in the foetus are similar to the concentrations in the mother.⁵

The principal mechanism through which the human body eliminates alcohol occurs in the liver, which processes what we eat and drink. About 90% of alcohol consumed is metabolised in the liver cells to acetaldehyde (a build up of which contributes to unpleasant physiological effects following consumption of alcohol, commonly referred to as a ‘hangover’).

³ See Annex A

⁴ Rang H and Dale P. *Rang and Dale's Pharmacology*, 7th Edition 2012, Elsevier

⁵INSERM 2001. Alcohol: Health effects INSERM Collective Expert Reports [Internet]. Paris: Institut national de la santé et de la recherche médicale; 2000-.2001.PMID:21348151

2.2 Physical harms

In addition to the negative impacts referred to above, long-term use of excessive amounts of alcohol may be associated with permanent central nervous system effects such as convulsions and dementia. Such excessive intake may compromise the uptake of thiamine and result in thiamine (vitamin B1) deficiency leading to Wernicke's Encephalopathy and Korsakoff's Psychosis (alcohol related brain damage). Damage to the peripheral nervous system (neurotoxicity) may result in peripheral nerve damage (neuropathy).

Liver damage is the most common problem of excessive alcohol consumption and females seem to be more sensitive to liver damage than males.⁶ Fat accumulates in the liver to produce 'fatty liver' and this may be followed by inflammation (hepatitis) and then by cell death and fibrosis, leading to cirrhosis (scarring of the liver tissue) due to prolonged heavy drinking. The concern with fatty liver disease is that most patients show no symptoms. Cirrhosis may be accompanied by 'portal hypertension' (high pressure in the portal vein which brings blood from the gut to the liver), leading to complications such as dilation of the blood vessels in the oesophageal tract (these are varices and are prone to bleeding, which can sometimes be massive). As with the neurotoxicity, liver damage may be associated with malnutrition as alcohol may replace food as a source of calories in the diet of those who consume excessive amounts.

Alcohol stimulates gastric acid secretion and excessive consumption, particularly in high concentration (e.g. in spirits) may result in gastritis (which may also cause gastrointestinal bleeding).

Damage to the pancreas may present as pancreatitis and chronic pancreatitis is associated with increased risk of insulin-dependent (type 1) diabetes mellitus.

Muscle damage caused by alcohol may result in acute as well as chronic myopathy (muscle disease or wasting). Severe acute muscle damage may result in acute rhabdomyolysis where as a result of the breakdown of muscle fibres, their contents are released into the blood-stream. This condition can result in excessive concentrations of myoglobin (an iron and oxygen binding protein) being excreted in the urine and this may result in acute kidney failure.

Excessive alcohol consumption can be associated with an increased prevalence of hypertension (high blood pressure), arrhythmias (irregularities of the heart rhythm such as atrial fibrillation), Inflammation of heart muscle (myocarditis) or permanent damage to heart muscle (cardiomyopathy) with increased risk of heart failure.

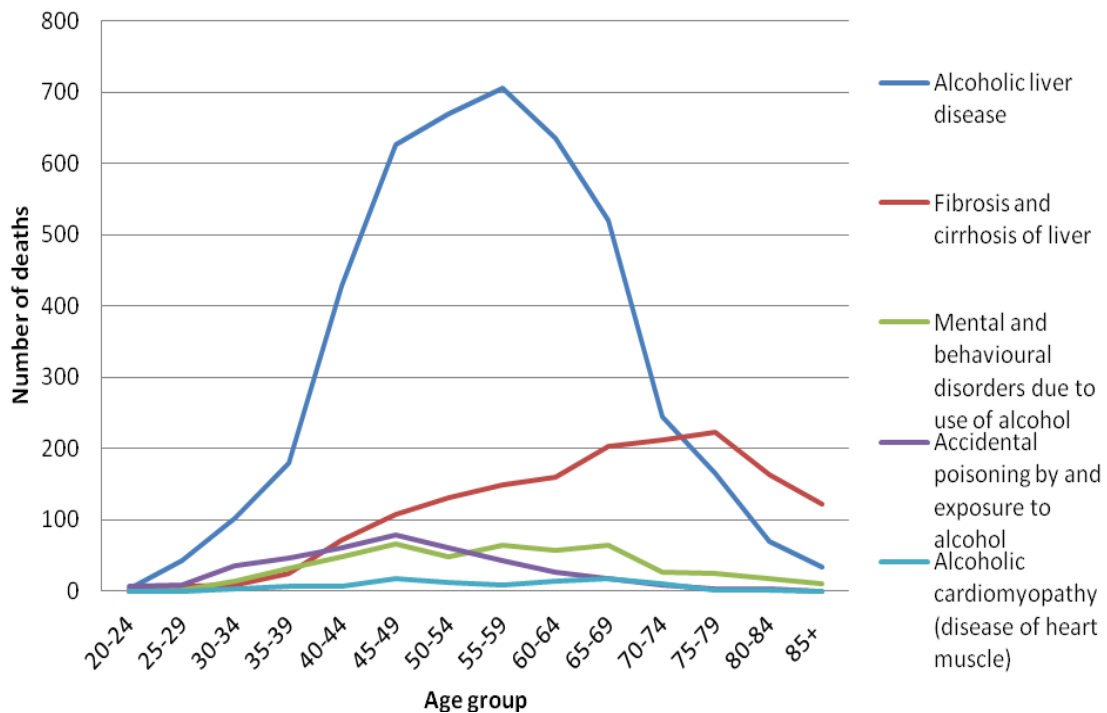
Even small amounts of alcohol consumed can be associated with 'small babies'. With greater consumption in alcohol-dependent women, there is an increased risk of foetal alcohol syndrome. This may result in physical abnormalities and growth impairment.⁷

⁶ Insemm ibid op cit

⁷ Kumar P & Clark M. *Kumar and Clark's Clinical medicine*, 8th Edition, 2012. Elsevier

Finally excess alcohol consumption has been associated with increased risk of carcinoma (cancer) of the oesophagus and large bowel, pancreatic carcinoma and carcinoma of the liver (hepatocellular carcinoma).⁷

The Office of National Statistics (ONS) report of 2012 identified the top 5 alcohol-related deaths by causes and age group, as the following graph shows:

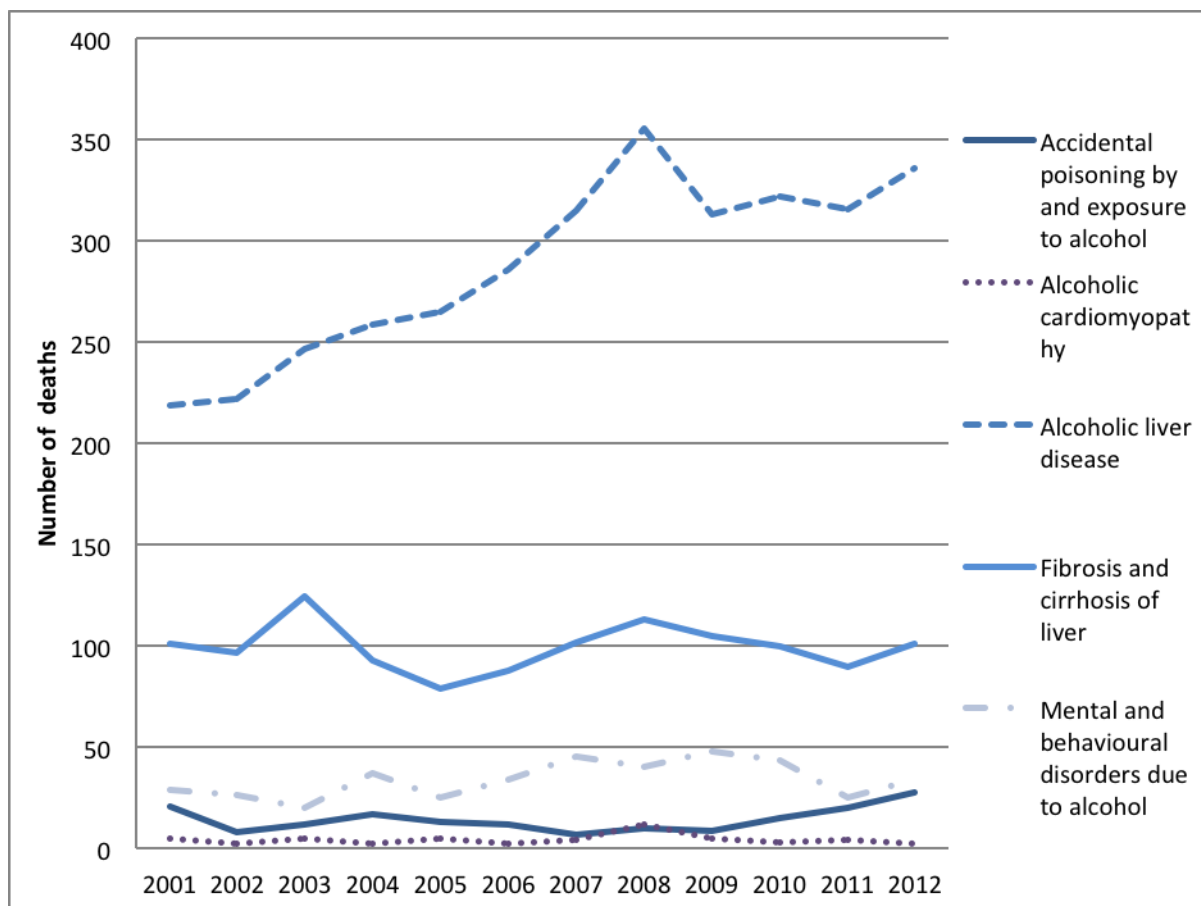


Source ONS 2014

Figure 1: Five main causes of alcohol-related death by age in the UK 2012

Overall, males accounted for 65% of all alcohol-related deaths in the UK in 2012 (42.6 deaths per 100,000 population) compared with females (22.2 deaths per 100,000). Deaths due to alcoholic cirrhosis have also increased with the highest rates being amongst those in their 50s (3,495) and 40s (2,598). Those who did not stop drinking had a less than 50% chance of living for at least five more years. The ONS report states: “The relatively long time it takes for this disease to develop suggests that heavy drinking is either starting at younger ages or the quantity being consumed by young people is increasing, therefore taking its toll on their health earlier.”

In Wales there is a clear upward trend in the number of alcohol-related deaths due to alcoholic liver disease, as indicated in Figure 2.



Source ONS 2013

Figure 2: Alcohol-related deaths by cause (ICD-10) in Wales 2001-12

2.3 Intake and dependency

In the UK a standard unit of alcohol is defined as 8g (or 10ml) of pure alcohol. It is recommended by the Department of Health that men should not consume more than 21 units of alcohol per week, i.e. 168g, and have at least two alcohol-free days each week. Women should not drink more than 14 units of alcohol per week, i.e. 112g, and have at least two alcohol-free days a week. Pregnant women, including those trying to conceive, are advised not to drink alcohol at all.

The terminology used, which also denotes consumption levels, is:

- *Intoxication* is defined as a state of psychological and/or psychomotor impairment due to the presence of alcohol in the body;
- *Hazardous alcohol consumption* is a level of consumption that is likely to result in harm. The World Health Organisation (WHO) estimates the threshold of hazardous alcohol consumption is two and one half to five units (20g-40g) of alcohol a day for women (or 17.5 units to 35 units or 140g to 280g a week) and five to seven and one half units (or 40g-60g) a day for men (35 to 52.5 units or 280g to 420g a week);
- *Harmful drinking* is a level of consumption that causes damage to health. The WHO estimates that the threshold of harmful drinking is more than five units

(40g alcohol a day for women or more than 35 units or +280g a week) and more than seven and one half units (60g a day for men or more than 52.5 units or +420g a week);

- *Episodic heavy drinking, or binge drinking*, denotes a drinking occasion where seven and one half units (60g or more) of alcohol is consumed in a single session.⁸

The International Classification of Mental and Behavioural Disorders criteria for alcohol dependence are:

- A strong desire or compulsion to take the substance;
- Difficulties in controlling substance-taking behaviour;
- Physiological withdrawal state upon cessation of substance use;
- Evidence of tolerance to a substance;
- Neglect of alternative interests due to time spent using the substance;
- Persisting with substance use despite evidence of harmful consequences.

Hazardous alcohol consumption and dependence may be associated with a range of social and sometimes psychiatric problems. In the most serious cases, sudden withdrawal of alcohol may result in *delirium tremens* between 24 and 72 hours later. This is characterised by agitation, disorientation, tremor and sometimes accompanying visual hallucinations, excessive perspiration, tachycardia (fast heart rate), increased respiratory rate and temperature. Some individuals may develop Wernicke–Korsakoff’s syndrome, with significant memory impairment and loss of bodily control.

A number of findings from global, pan-European and UK surveys serve to illustrate these harms. The WHO found that the harmful use of alcohol resulted in 3.3 million deaths worldwide each year (5.9% of all deaths i.e. 1 in every 20 deaths) and reported that alcohol was associated with more than 200 adverse health consequences.⁹ WHO had previously ranked alcohol as the third leading cause of death and disability in the developed world within Europe, after tobacco and high blood pressure, alcohol represents the leading risk factor for morbidity and mortality.¹⁰

⁸ According to the NHS ‘binge drinking’ in women is 6 units and for men 8 units or more in a single session

⁹ “Alcohol - Global status report on alcohol and health”, World Health Organisation, 2014, ISBN 978 92 4 156475 5

¹⁰ (Health at a glance, Europe 2013, Available at: <http://www.oecd-ilibrary.org/sites/9789264183896-en/02/06/index.html?jsessionid=5hic6o18i5b9h.x-oecd-live-02?containerItemid=%2Fcontent%2Fserial%2F23056088&contentType=%2Fns%2FStatisticalPublication%2C%2Fns%2FChapter&itemId=%2Fcontent%2Fchapter%2F9789264183896-25-en&mimeType=text%2Fhtml>)

The ONS found that excessive alcohol consumption caused 1.4% of deaths in England and Wales. Binge drinking accounted for 396 accidental deaths in 2012 and was the fourth highest alcohol-related cause of death. Alcohol misuse accounted for over 5,000 deaths in England and Wales in each of the last ten years, denoting a serious and increasing public health problem – but also one that is preventable.¹¹

Information on mortality rates for Wales is set out in Chapter four. In summary, alcohol-related deaths have risen by 130% in the last 10 years (2003-2012) with 504 alcohol-related deaths in Wales in 2012. Wales continues to have higher rates of alcohol-related deaths than England in both males and females (20.6 and 12.3 per 100,000 population respectively in 2012).¹²

¹¹ Alcohol-related deaths in the United Kingdom, 2011, 29 January 2013, Office for National Statistics

¹² Alcohol-related deaths in the United Kingdom, 2011, 29 January 2013, Office for National Statistics

3. Harms, costs and benefits of alcohol

‘The actual spending on alcohol-related problems in the EU is estimated at about €66 billion, spread across areas as diverse as crime and criminal justice, traffic accidents, health, and disease treatment and prevention’.

Alcohol-related harm in Europe, European Commission

3.1 Social and economic harms

There is a dose-response relationship between the volume of alcohol consumed and the likelihood of harm, so that long-term excessive drinking can lead to an increase in direct physical harms (as set out above). Examples of other direct harms to the user include accidents and assaults, which incur significant financial as well as emotional costs.

A number of findings from global, pan-European and UK surveys serve to illustrate these harms. The WHO report of 2013 confirmed that alcohol use was the third leading risk of the burden of disease in Europe¹³ with alcohol being responsible for 1 in 7 male deaths and 1 in 13 female deaths. More than 90% of alcohol-attributable net deaths were due to cancers, liver cirrhosis and injuries. It is estimated that 94,451 men and 25,284 women aged between 15 and 64 years of age died of alcohol-attributable causes in the EU in 2004 (a total of 119,735 alcohol-attributable deaths). This equates to 13.9% of all deaths in men and 7.7% of all deaths in women in this age category or 11.8% of all deaths.¹⁴

As alcohol is a major risk factor for premature mortality, it is of concern that, although the general trend within Europe has been a decrease of consumption from 1990 to 2010, the UK has shown an overall increase of 3% during this same period. For example, in 2012, 8,367 alcohol-related deaths (i.e. only those deaths assessed as being directly caused by alcohol) were registered in the UK.¹⁵ This represented a directly standardised rate of 11.8 deaths per 100,000 people. Of these deaths, 63% were caused by alcoholic liver disease.

Those who consume alcohol excessively may cause harm not only to themselves but also to others. These indirect harms are costs not directly accountable or traceable to the consumer, impacting on (for example), children of parents with alcohol problems, family members, carers, passengers killed or injured by alcohol-impaired drivers and health professionals. The WHO report recorded global alcohol-attributable harm to others due to motor vehicle accidents and assaults, and found

¹³ Status report on alcohol and health in 35 European countries 2013, WHO regional office for Europe

¹⁴ WHO (2012) Alcohol in the European Union, Copenhagen, World Health Organisation

¹⁵ Office for National Statistics. Alcohol-related deaths in the United Kingdom, registered in 2012. Statistical Bulletin. London: Office for National Statistics; 2014.

that 1.04 deaths per 100,000 people were related to such events in 2010.¹⁶ The UK government has based its alcohol strategy on calculations that alcohol costs the UK £21 billion per year; costs that include an estimated 1.2 million alcohol-related admissions and 1 million alcohol-related violent crimes in 2010-11.¹⁷ Specific examples of indirect harms include:

- Lost economic productivity for employers through staff absenteeism;
- Costs to institutions through poor health or criminality in their workforce;
- Unemployment or low employability of users and the impact on their families and costs to the state;
- Crime, in particular violent crime.^{18,19} The association between alcohol consumption and domestic violence has been highlighted as a particular area of concern;^{20,21,22}
- Risky sexual activity, potentially impacting on an individual and their partners' sexual health, sometimes resulting in sexually transmitted diseases²³ and unplanned pregnancy;²⁴
- The consumption of relatively small amounts of alcohol by pregnant women is associated with 'small babies' and with greater consumption there is an increased risk of foetal alcohol syndrome resulting in physical abnormalities and growth impairment.²⁵

The cost of alcohol-related harm to the EU's economy has been estimated at €125 billion for 2003, equivalent to 1.3% of GDP. The actual spending on alcohol-related problems in the EU is estimated at about €66 billion, spread across areas as diverse

¹⁶ Relying on the research of: Chisholm D et al. *Alcohol policy cost-effectiveness briefing notes for 22 European countries*. London, Institute of Alcohol Studies, 2009; Lhachimi SK et al. Health impacts of increasing alcohol prices in the European Union: a dynamic projection. *Preventive medicine* 2012, 55:237-243; Rehm J et al. Modelling the impact of alcohol dependence on mortality burden and the effect of available treatment interventions in the European Union. *European Neuropsychopharmacology*, 2013, 23: 89-97.

¹⁷ Home Office. The Government's alcohol strategy. Cm 8336. London: TSO; 2012.

¹⁸ Sivaramasingam V, Matthews K, Shepherd J. Price of beer and violence-related injury in England and Wales. *Injury*. 2006;37(5):388-94.

¹⁹ Boreham R, Cronberg A, Dollin L, and Pudney S (2007) *The Arrestee Survey 2003-2006*. Home Office Statistical Bulletin. London: Home Office RDS Directorate

²⁰ Humphreys C, Regan L, River D and Thiara RK (2005a) 'Domestic Violence and Substance Abuse: Tackling Complexity', *British Journal of Social Work* 35(8):1303-1320

²¹ Moore TM and Stuart GL (2004) 'Illicit substance use and intimate partner violence among men in batterers' intervention', *Psychology of Addictive Behaviours* 18(4):385-9

²² Chermack ST and Blow FC (2002) 'Violence among individuals in substance abuse treatment: the role of alcohol and cocaine consumption', *Drug and Alcohol Dependence* 66:29-37

²³ Teenage Sex, Drugs and Alcohol Use: Problems Identifying the Cause of Risky Behaviours²⁰ (with Robert Kaestner). *Journal of Health Economics*, 23(3): 493-503, May 2004

²⁴ : Murgraff, V., Parrott, A.C., Bennett, P. (1998) Risky single occasion drinking amongst young people: definition, correlates, policy and intervention, A broad overview of research findings. *Alcohol and Alcoholism*, 33, 1-12.)

²⁵ Kumar P & Clark M. *Kumar and Clark's Clinical medicine*, 8th Edition, 2012. Elsevier

as crime and criminal justice, traffic accidents, health, and disease treatment and prevention.²⁶

3.2 Alcohol and crime: overview

The crimes most prominently associated with alcohol are those involving violence,²⁷ including domestic violence. Less is known about alcohol use and property crime²⁸. This may be partly because, between 1997 and 2008, the role of alcohol was eclipsed by research and policy focused almost exclusively on the relationship between heroin, crack cocaine use, and acquisitive crime.^{29,30,31,32} Relationships between alcohol use and social nuisance also merit further attention. Of the 45,000 penalty notices for social disorder issued in England and Wales in 2011/12, four out of five were for being drunk and disorderly.³³

Further information can be drawn from the Probation Service’s Offender Assessment System (OASys) records, which assesses ten criminogenic needs including alcohol misuse. Based on 325,863 assessments of offenders 43.5% of offenders had an alcohol misuse need related to their offending. In Wales, assessed alcohol-related needs were particularly prominent: 50% of offenders had an alcohol misuse need linked to their offending behaviour. Thus, alcohol figures more highly in offending in the Welsh context and is above the national average of 43.5%.

In these data, there was a difference in the prevalence levels of alcohol misuse need relating to offending behaviour. The highest prevalence was for those with a current offence for criminal damage (67.1% had an alcohol misuse need) followed by those with a current violence against the person offence (59.5% had an alcohol misuse need). The offence type and prevalence rates for different offence types are shown in the table below:

Offence Type	Prevalence rates for alcohol misuse
Criminal Damage	67.1%
Violence Against the Person	59.5%
Robbery	43.1%
Other Offences	39.2%

²⁶ European Commission (2006) Alcohol-related harm in Europe – Key data. Health and Consumer Protection Directorate-General, Brussels, European Commission

²⁷ Sivarajasingam V, Matthews K, Shepherd J. Price of beer and violence-related injury in England and Wales. *Injury*. 2006;37(5):388-94.

²⁸ Criminal justice costs of alcohol are taken from Duborg’s earlier estimates and adjusted. Dubourg R, Hamed J, Thorns J. The economic and social costs of crime against individuals and households 2003/04 London: Home Office; 2005 [cited 2007 May]. Available from: www.homeoffice.gov.uk/rds/pdfs05/rdsolr3005.pdf.

²⁹ Godfrey C, Stewart D and Gossop M (2003) ‘Economic analysis of costs and consequences of the treatment of drug misuse: 2-year outcome data from the National Treatment Outcome Research Study (NTORS).’ *Addiction* 99:697-707

³⁰ Holloway K and Bennett T (2004) *The Results of the First Two Years of the NEW-ADAM Programme*. Home Office Online Report 19/04. London: Home Office

³¹ Skodbo S, Brown G, Deacon S, Cooper A, Hill A, Millar T, Smith J and Whitham K (2007) *The Drug Interventions Programme (DIP): Addressing Drug Use And Offending Through ‘Tough Choices’*. London: Home Office

³² HM Govt (2002) *Updated Drug Strategy*. London: HM Govt

³³ Booth, Andrew, et al (2010)., 'Alcohol pricing and criminal harm: a rapid evidence assessment of the published research literature', SchARR, University of Sheffield, p. 14

Burglary	36.7%
Theft & Handling	33.0%
Sexual Offences	26.5%
Drug Offences	17.7%
Fraud & Forgery	11.8%

Prevalence rates for alcohol misuse varied by the type of sentence. For offenders serving community orders, 48% had an alcohol misuse need identified, for offenders serving a custodial sentence (generally of 12 months or more), 37.5% had an alcohol misuse need identified.³⁴

As a cautionary note it is recognised that the data was collated in 2008 and does not reflect the current downturn in violent crime, but does indicate the criminogenic prevalence of alcohol-related issues.

3.3 Violent crime

Alcohol-related violence tends to cluster in urban high-density areas and in and around night-time on-licensed and off-licensed premises.³⁵ Within the UK, the Institute of Alcohol Studies estimated that 1% of people will be victims of alcohol-related violent crime each year. The 2011/12 Crime Survey for England and Wales drew on a survey of 46,000 households³⁶ to estimate that there had been 917,000 violent incidents where the victim believed the offender(s) to be under the influence of alcohol.³⁷ This, represented 47% of violent offences committed that year, and an increase of 3% on the previous year.³⁸ In 2011/12 it was estimated that the effects on crime and social disorder cost UK taxpayers £11 billion per year.³⁹

The UK Government's recent consultation report regarding its alcohol strategy drew on the Crime Survey's findings to assert:

'The statistics around alcohol and violence are stark: in 47% of violent incidents, the victim believed the perpetrator to be under the influence of alcohol, and a fifth of all violent incidents took place in or around a pub or club, while around two thirds of all violence occurs in the evening or at night . . . alcohol-related crime is estimated to cost society £11 billion in England and Wales alone. Alcohol misuse also costs the United Kingdom economy an

³⁴ A compendium of research and analysis on the Offender Assessment System (OASys) undertaken by the OASys Data Evaluation and Analysis Team (O-DEAT) 2006–2009 (Mia Debidin (Editor) December 2009), Ministry of Justice Research Series 16/09"

³⁵ There is no standard definition for the night-time economy, although generally it is taken to refer to economic activity taking place during the evening to early hours of the morning, which involves the sale of alcohol at bars, pubs and restaurants.

³⁶ Office for National Statistics (2012) *The 2011/12 Crime Survey for England and Wales. Technical Report: Volume 1*. London, ONS

³⁷ Office for National Statistics (2013) *Focus On: Violent Crime and Sexual Offences, 2011/12*. London, ONS

³⁸ Office for National Statistics (2013) *Focus On: Violent Crime and Sexual Offences, 2011/12*. London, ONS

³⁹ 1 www.parliament.uk (July 2013), Written evidence from the Department of Health (GAS 01), in '3rd report – Government's Alcohol Strategy', Health Committee

*estimated £7.3 billion a year in lost productivity and the National Health Service in England an estimated £3.5 billion a year.'*⁴⁰

In short, although violent crime has been steadily decreasing, the proportion of violent crime believed to be alcohol-related remained relatively stable in the decade following 2001.

3.4 Domestic abuse

Assessing levels of domestic abuse is a complicated process, as no specific named offences of domestic violence exists. Moreover, approaching domestic abuse as specifically related to physical violence and criminal behaviour fails to account for many of the broader harms (and indirect costs) associated with intimate partner violence. Many of these are reflected in the UK Government's cross-government definition of domestic violence:

'Any incident or pattern of incidents of controlling, coercive, threatening behaviour, violence or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of gender or sexuality. The abuse can encompass but is not limited to:

- *psychological*
- *physical*
- *sexual*
- *financial*
- *emotional*⁴¹

Recognising this broad definition takes account of large populations of victims who may not be subjected to physical violence, but who still incur very substantial harms from partner abuse.^{42,43,44,45,46} These harms are attended by additional personal and social costs. Self-report data from the Crime Survey for England and Wales highlights the vast scale of the problem, estimating that there were 2,000,000 victims of domestic abuse in 2011/12. This figure comprised 7% of all women (1,200,000 victims) and 5% of men (800,000).⁴⁷

Nonetheless, physical violence represents the most easily measured form of domestic abuse. Approximately 308,000 domestic assaults took place in 2011/12,

⁴⁰ European Commission (2006) Alcohol-related harm in Europe – Key data. Health and Consumer Protection Directorate-General, Brussels, European Commission

⁴¹ Home Office (2012) *Cross-Government Definition of Domestic Violence – a Consultation. Summary of Responses*. London, Home Office.

⁴² Coker AL, Smith PH, Bethea L, King MR and McKeown RE (2000) 'Physical health consequences of physical and psychological intimate partner violence.' *Archives of Family Medicine* 9:451-457

⁴³ Baslie KC, Arias I, Desai S and Thompson MP (2004) 'The differential association of intimate partner physical, sexual, psychological and stalking violence and posttraumatic stress symptoms in a nationally representative sample of women,' *Journal of Traumatic Stress* 17(5):413-421

⁴⁴ Brown TG, Werk A, Caplan T, Shields N and Seraganian P (1998) 'The incidence and Characteristics of Violent Men in Substance Abuse Treatment', *Addictive Behaviours* 23(5):573-586

⁴⁵ Bennett L, Goodman L and Dutton MA (2000) 'Risk assessment among batterers arrested for domestic assault: the salience of psychological abuse.' *Violence Against Women* 6:1190-1203

⁴⁶ Pico-Alfonso MA (2005) 'Psychological intimate partner violence: the major predictor of posttraumatic stress disorder in abused women.' *Neuroscience and Behavioural Reviews* 29:181-193

⁴⁷ Office for National Statistics (2013) *Focus On: Violent Crime and Sexual Offences, 2011/12*. London, ONS

accounting for nearly one in six violent incidents.⁴⁸ Despite such prevalence, it is difficult to obtain a reliable estimate of the costs associated with alcohol-related domestic abuse for the UK. One particularly robust attempt drew on data from the 2003/4 British Crime Survey, which identified that the human, business, and social costs of domestic violence, without the additional costs of alcohol-related injury and need, could be as great as £23 billion⁴⁹. Violence was estimated to cost the criminal justice system £1 billion, health care £1.2 billion and social services £25 billion.

In particular, these costs are focussed on children involved in families where there is domestic and child abuse, with the estimated costs of domestic abuse to the economy identified as being £2.7 billion regarding lost economic output, and human and emotional costs estimated at £17 billion. A recent update to this report suggests that this cost may have reduced to £15 billion in 2009, linked to a reduction in domestic abuse and more effective service provision for victims. However, an increase in reporting and greater service use by the victims is such that the criminal justice agencies' costs remain similar but other agencies may be spending less and the overall economic impact may be lower.⁵⁰

Home Office-funded research across England and Wales of men on probation for domestic violence convictions found that almost half of the sample was alcohol dependent (48%) and alcohol was present in 62% of incidents.⁵¹ Given that alcohol was implicated in 62% of domestic violence incidents in one study,⁵² this would give an estimated minimum cost to England and Wales for alcohol-related domestic abuse of £9.8 billion; the time costs of dealing with such incidents and human costs are likely to be equally high.⁵³ Consumption of alcohol has been associated with greater severity of injury to the victim, with associated increases in fear and human cost,⁵⁴ so the actual costs of alcohol-related domestic abuse are likely to be higher once all indirect costs are factored into the equation.

The costs to the criminal justice system for each type of offence are estimated to be £1,308 for violent offences, £149 for criminal damage and £735 for theft and other crimes. It is estimated that the cost of alcohol-related crime in England was £11 billion per annum.⁵⁵

⁴⁸ Office for National Statistics (2013) *Focus On: Violent Crime and Sexual Offences, 2011/12*. London, ONS

⁴⁹ Walby, S (2004) *The Cost of Domestic Violence, Research Summary*, London: Women and Equality Unit.

⁵⁰ Walby, S (2009) *The Cost of Domestic Violence: Up-date 2009*
<http://www.lancs.ac.uk/fass/sociology/profiles/34/> accessed 1 May 2014.

⁵¹ Gilchrist, Elizabeth; Johnson, Rebecca; Takriti, Rachel; Weston, Samantha; Beech, Anthony and Kebbell, Mark (2003). Findings 217: Domestic violence offenders: characteristics and offending related needs. Home Office: London. <http://www.homeoffice.gov.uk/rds/pdfs2/r217.pdf>

⁵² Gilchrist, E, Johnson, R, Takriti, R, Weston, S, Beech, A.R and Kebbell, M (2003) Domestic violence offenders: characteristics and offending related needs Findings 217, London Home Office Research, Development and Statistics Directorate.

⁵³ BMA (2012) *Reducing the affordability of alcohol A briefing from the BMA Board of Science*, London: Faculty of BMA Board of Science

⁵⁴ Connor J, Kypri K, Bell ML, et al (2011). Alcohol involvement in aggression between intimate partners in New Zealand: a national cross-sectional study *BMJ Open* (2011) p 1-8.

⁵⁵ (at 2010-11 costs), (Reference: Institute of Alcohol Studies, available at:
<http://www.ias.org.uk/Alcohol-knowledge-centre/Economic-impacts/Factsheets/Economic-costs.aspx>

3.5 Alcohol-related health costs

The National Institute for Health and Care Excellence (NICE) classifies alcohol-related harms into three categories: healthcare costs, crime and antisocial behaviour costs, and employee absenteeism.⁵⁶ The unit costs for healthcare admissions wholly attributable to alcohol are £1,540 each (e.g. severe intoxication) and £2,120 for admissions partially attributable to alcohol (e.g. hypertensive disease).

Data from Wales indicates over 63,000 hospital admissions in 2011/12 with 24% specifically attributable to alcohol as shown at Figure 3.⁵⁷ The data indicate that more than £97 million is spent in Wales on admissions directly attributable to alcohol.

NICE used these figures to estimate that the alcohol-related healthcare cost to the NHS in England was £2.9 billion in 2008-09. The figures presented below in Figure 3 suggest that a comparable figure for Wales would be £125 million for 2010-11. Using mid-year population estimates for 2009 and 2011 respectively, this would suggest that the healthcare costs of alcohol were £55.66 per capita for England in 2008-09 compared with £40.80 per capita for Wales in 2010-11. However, the lack of a published methodology, amongst other issues, means that care should be taken in interpreting these figures.⁵⁸

Wales	Approx. number of admissions, by financial year									
	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Alcohol-related NHS hospital admissions based on primary and secondary diagnoses	41,479	44,788	46,669	53,116	56,357	55,498	59,274	58,555	62,734	63,235
NHS hospital admissions with a primary diagnosis wholly or partly attributable to alcohol	11,556	12,078	12,315	13,765	14,925	14,599	14,942	14,696	15,398	15,461

Source, Health Maps Wales, Public Health Wales 2013

Figure 3: Alcohol-related and alcohol-attributable hospital admission in Wales 2002/12

3.6 Absenteeism

Although 85% of adult individuals consume alcohol in a moderate and responsible manner most of the time, harmful and hazardous alcohol consumption is one of the main causes of premature death and avoidable disease and furthermore has a negative impact on working capacity. Alcohol-related absenteeism or drinking during working hours have a negative impact on work performance, and therefore on economic competitiveness and productivity.

With regard to lost economic productivity through absenteeism related to alcohol misuse⁵⁹ the NICE report provides estimates from the Chartered Institute of Personnel and Development which state that the average daily cost of absenteeism

⁵⁶ Alcohol-use disorders, preventing harmful drinking. NICE Public Health Guidance. 2010;24.

⁵⁷ .(Reference - <http://www.ias.org.uk/Alcohol-knowledge-centre/Health-impacts/Factsheets/Alcohol-related-morbidity-rates.aspx>)

⁵⁸ Evans D. Hierarchy of evidence: a framework for ranking evidence evaluating healthcare interventions. Journal of Clinical Nursing 2003; 12: 77–84 and also Daly, J and Willis, K and Small, R and Green, J and Welch, N and Kealy, M and Hughes, E, A hierarchy of evidence for assessing qualitative health research, Journal of Clinical Epidemiology, 60, (1) pp. 43-49. ISSN 0895-4356 (2007)

⁵⁹ Mustonen H, Paakkanen P, Simpura J. Drinking habits among the employed and unemployed. Nordisk Alkoholtidskrift 1994;11(English Supplement):21-34

is £98.86 per person. It is estimated that lost productivity due to alcohol costs £7.3 billion per annum in the UK.⁶⁰

3.7 Child abuse and ‘children in need’

Alcohol is estimated to be a causal factor in 16% of cases of child abuse and neglect.⁶¹ Harmful alcohol consumption among young people has been shown to have a negative impact not only on health and social wellbeing, but also on educational attainment.⁶²

According to data from the Welsh Government “Children in Need” Census 2013⁶³, there were 19,920 children in need in Wales in 2013. Data on the parental factors of children in need indicate that 25% of the children come from families where parental substance or alcohol misuse has been a primary factor in their identification. This rate increases in relation to the ‘in care’ status of the child as indicated in Figure 4.

	2010	2011	2012	2013
Looked after children	1,405	1,885	1,965	1,900
Children on the child protection register but not currently looked after	775	1,010	935	870
Children in need but not looked after or on the child protection register	1,635	2,100	2,130	2,160
Total	3,815	4,995	5,030	4,930

Source, Welsh Government Children in Need Census 2014

Figure 4: The number of children in need in Wales with parental substance or alcohol misuse by type of care 2010-2013

Although financial figures for the estimated costs of such placements are not readily available due to problems of quantifying the cost of legal proceedings in family Courts, together with the costs of the maintenance, accommodation and professional support provided to these children, these are likely to be significant. The UK Government estimates the total crime, economy and health cost of alcohol to be at £21 billion. The following Figure 5 provides estimates for each cost domain.⁶⁴

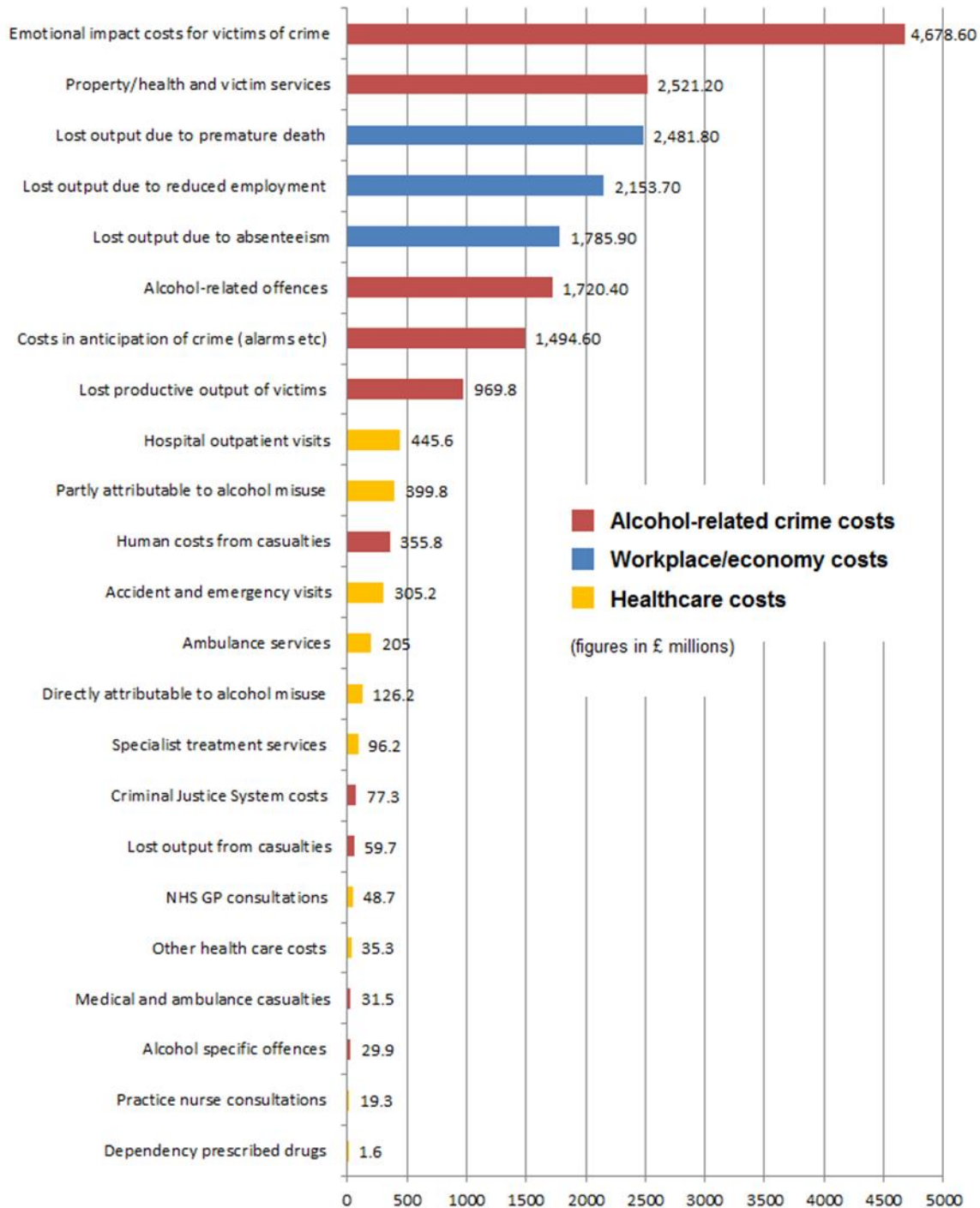
⁶⁰ John Woodhouse and Philip Ward (March 2013), 'A minimum price for alcohol?', House of Commons Library, p. 11, from Home Office (November 2012), 'Impact Assessment on a minimum unit price for alcohol' (accessed 12 February 2013), p. 5. IAS – Alcohol in the Workplace Factsheet available at: <http://www.ias.org.uk/uploads/pdf/Factsheets/Alcohol%20in%20the%20workplace%20factsheet%20MARCH%202014.pdf>

⁶¹ English et al. 1995, Single et al, 1999, Ridolfo and Stevenson 2001, taken from Alcohol in Europe – a public health perspective - http://ec.europa.eu/health-eu/news_alcoholineurope_en.htm

⁶² RAND: An economic analysis of the impact of alcohol on the economic development in EU (Horlings, Scoggins 2006).

⁶³ (Available at: <http://wales.gov.uk/docs/statistics/2014/140227-wales-children-need-census-2013a-en.pdf>)

⁶⁴ Secretary of State for the Home Department (March 2012), 'The Government’s Alcohol Strategy', HM Government



Source Home Office 2012

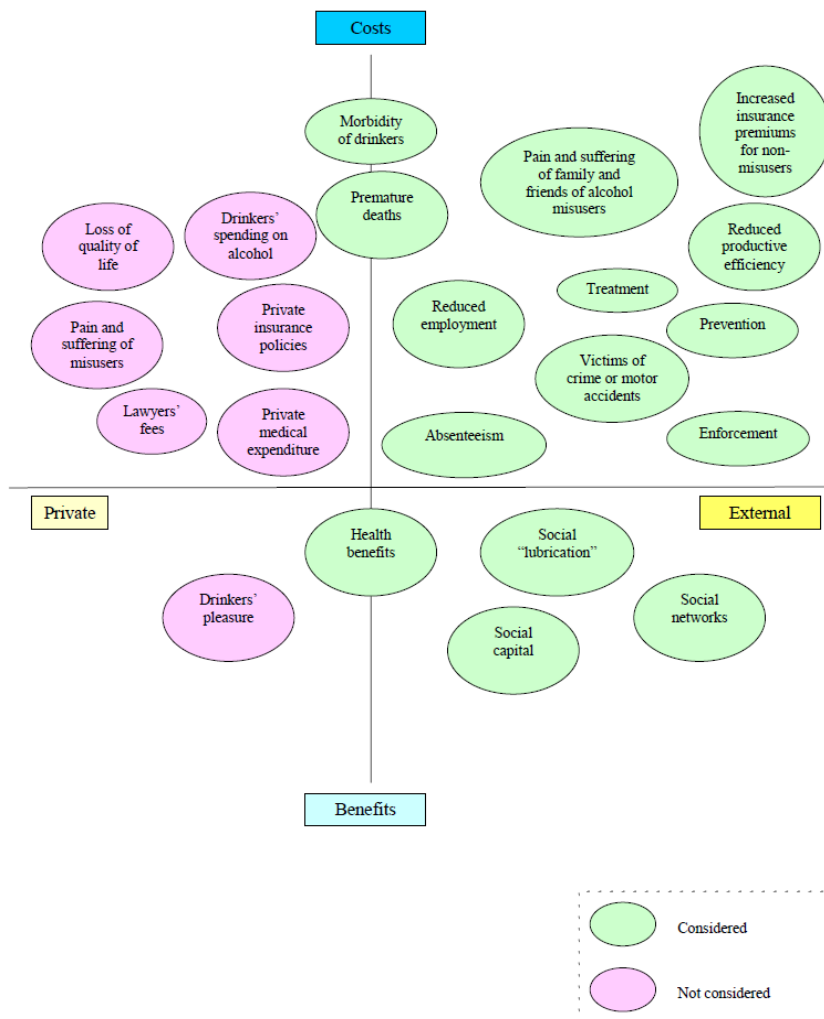
Figure 5: UK Government estimates on the cost of alcohol

It is pertinent to note that this Figure does not include any estimate for the economic costs of alcohol misuse to families and social networks.

It therefore follows that any alcohol strategy should target the most vulnerable groups within our communities to provide support, prevention and treatment, as a number of interventions which are effective can lead to a significant drop in preventable deaths. This would in turn lead to a reduction in the 'ripple' effect of

indirect and social harms; and thus to reduced financial costs. In days of global recession and austerity measures, the targeting of interventions to relevant vulnerable groups is a priority from a financial cost, emotional cost, and ethical perspective.

3.8 Benefits



Source Cabinet Office, Strategy Unit, 2003

Figure 6: Private and external costs and benefits of alcohol use/misuse⁶⁵

As well as the negative effects of alcohol, there are also positive effects, or perceived positive effects; although it should be noted that perceived benefits of all recreational psycho-active substances need to be balanced against their adverse effects and the overall cost–benefit ratios for all recreational drugs, including alcohol, are often quite negative. The core paradox for all types of drug use, is that they are taken for psychological benefits, but instead typically produce far more psychological deficits than actual gains.⁶⁶

⁶⁵ Alcohol misuse: how much does it cost? September 2003, Cabinet Office, Strategy Unit

⁶⁶ Parrott AC (2008). Drug taking - for better or for worse? *Psychologist*, 21: 924-927.

Anecdotally consumers report that alcohol use is associated with relaxation and happiness. Reasons given for drinking are to feel better, to relieve stress and to 'cheer oneself up' and for convivial friendly company. Models of instrumental substance use suggest that humans learn that mental states can be changed on purpose by use of psychoactive-drugs, such as alcohol, in order to facilitate, for example, behaviours such as social interaction and coping with stress.⁶⁷ Reviews of studies investigating self-reported beliefs of 'moderate' alcohol drinkers suggest that many perceive psychological benefits from alcohol use such as subjective improvements in health, mood enhancement, stress reduction, sociability, social integration, mental health, and long-term cognitive functioning.⁶⁸ Positive expectations of alcohol outcomes and effects are also strong predictors of future use.⁶⁹

These positive perceptions may partly result from the purported health benefits of 'moderate' alcohol use,⁷⁰ which are widely reported in the popular media,⁷¹ although establishing causation is difficult⁷² and UK news reporting tends to focus on negative outcomes of alcohol.⁷³ However, studies purportedly demonstrating health benefits of alcohol use have been criticised on methodological grounds,⁷⁴ and it has been argued that the benefits of alcohol use may be partly explained by other unmeasured lifestyle factors.⁷⁵ Nevertheless, and although unconscious biases are important in determining alcohol use behaviour,⁷⁶ it is likely that alcohol-use decisions and behaviours are at least partly based on the intuitive balance of personally-valued positive outcomes of use compared to expected negative outcomes.⁷⁷

⁶⁷ Muller C, Schuman G (2011) Drugs as instruments: A new framework for non-addictive psychoactive drug use. *Behavioral and Brain Sciences* 34: 293-310

⁶⁸ Peele, S., & A. Brodsky (2000), Exploring psychological benefits associated with moderate alcohol use: A necessary corrective to assessments of drinking outcomes? *Drug and Alcohol Dependence*, 60, 221-247.

⁶⁹ Jones BT, Corbin W, Fromme K (2001) A review of expectancy theory and alcohol consumption. *Addiction* 96: 57-72

⁷⁰ Ronksley R, Brien S, Turner B, Mukamal K, Ghali W. (2011) Association of alcohol consumption with selected cardiovascular disease outcomes: a systematic review and meta-analysis. *British Medical Journal*, 342:doi:[10.1136/bmj.d671](https://doi.org/10.1136/bmj.d671).

⁷¹ NHS Choices (2011) What's your poison. A sober analysis of alcohol and health in the media. Available from <http://www.nhs.uk/news/2011/10October/Pages/alcohol-special-report.aspx> (last accessed 1/5/14)

⁷² Baille RK (1996) Determining the effects of media portrayals of alcohol: going beyond short term influence. *Alcohol and Alcoholism* 31:235-242.

⁷³ Nicholls J (2011). UK news reporting of alcohol: an analysis of television and newspaper coverage. *Drugs Educ Prev Policy*; 18: 200–6.

⁷⁴ Stockwell TR, Greer A, Fillmore K, Chikritzhs T, Zeisser C (2012) Moderate alcohol consumption and health benefits: how good is the science? Response to Ronksley et al.

⁷⁵ Naimi T, Brown D, Brewer R, et al. (2005). Cardiovascular risk factors and confounders among nondrinking and moderate drinking U.S. adults. *American Journal of Preventive Medicine* 28:369–373.

⁷⁶ Field M, Cox, WM (2008) 'Attentional bias in addictive behaviors: a review of its development, causes, and consequences'. *Drug and Alcohol Dependence* 97: 1–20.

⁷⁷ Slovic P, Finucane M, Peters E, MacGrego DG (2002), 'The affect heuristic', in Gilovich, T., Griffin, D. and Kahneman, D., eds, *Intuitive judgement: heuristics and biases*, Cambridge University Press, New York, pp. 397–420.

Those who drink most, including young persons, tend to do so under the assumption that alcohol promotes well-being and happiness^{78,79,80} and a unique feature of some policy documents is the preface “alcohol consumption can have a positive impact on adults’ wellbeing.”⁸¹ However, evidence indicates alcohol misuse may cause mood and anxiety disorders⁸² (although there is little understanding of the dose-dependent effects of alcohol) and for mental health the role of alcohol may be both causal and symptomatic.^{83,84,85} With regard to beer, consumers are generally unable to distinguish between beverages of 3.7% abv. and 5.6% abv. and strength is unrelated to enjoyment and subjective intoxication⁸⁶, suggesting that the act of consumption rather than the alcohol content itself determines the subjective pleasure.

There are perceived health benefits of alcohol. There is some evidence that alcohol has cardio-protective effects but this only seems related to small amounts of alcohol consumption.⁸⁷ However, the general medical advice is that there are safer means of achieving the same health benefit.⁸⁸

Economic benefits can be measured by the value of sales in the UK and world markets, taxation revenues received by the Treasury and the number of employees of the alcohol industry. The Wine & Spirits Trade Association state that the UK alcohol industry directly employs more than 650,000 people in the production and retailing of alcohol and supports a further 1.1 million jobs in the wider economy.⁸⁹

Alcohol duties make a substantial contribution to state revenues. HMRC received approximately £10 billion from alcohol duties in the financial year 2012/13, which accounted for 2% of total tax receipts.⁹⁰

⁷⁸ Cameron CA, Stritzke WGK, Durkin K. Alcohol expectancies in late childhood: An ambivalence perspective on transitions toward alcohol use. *Journal of Child Psychology and Psychiatry*. 2003;44(5):687-98.

⁷⁹ Jones BT, Corbin W, Fromme K. A review of expectancy theory and alcohol consumption. *Addiction*. 2001;96:57-72.

⁸⁰ Stein KD, Goldman MS, Del Boca FK. The influence of alcohol expectancy priming and mood manipulation on subsequent alcohol consumption. *Journal of Abnormal Psychology*. 2000;109(1):106-15

⁸¹ The Government’s Alcohol Strategy. London: Drugs and Alcohol Unit, Home Office.

⁸² Falk, Yi and Hilton. Age of onset and temporal sequencing of lifetime DSM-IV alcohol use disorders relative to comorbid mood and anxiety disorders. *Drug and Alcohol Dependence*. 2008;94(1–3):234-45.

⁸³ Elliot DS, Huizinga D, Scott M. *Multiple Problem Youth: Delinquency, Substance Use, and Mental Health Problems*. New York: Springer-Verlag; 1989.

⁸⁴ Regier DA, Farmer ME, Rae DS, Locke BZ, Keith SJ, Judd LL, et al. Comorbidity of mental disorders with alcohol and other drug abuse: Results from the epidemiologic catchment area (eca) study. *JAMA*. 1990;264(19):2511-8.

⁸⁵ Boden JM, Fergusson DM. Alcohol and depression. *Addiction*. 2011;106(5):906-14.

⁸⁶ Geller ES, Kalsher MJ, Clarke SW. Beer versus mixed-drink consumption at fraternity parties: a time and place for low-alcohol alternatives. *Journal of studies on alcohol*. 1991;52(3):197-204. Segal DS, Stockwell T. Low alcohol alternatives: a promising strategy for reducing alcohol-related harm. *International Journal of Drug Policy*. 2009;20:183-7.

⁸⁷ Agarwal, D. P. Cardioprotective effects of light–moderate consumption of alcohol: a review of putative mechanisms. *Alcohol and Alcoholism* (2002) 37 (5): 409-415.

⁸⁸ Is alcohol good for the heart? Drinkaware. <http://www.drinkaware.co.uk/check-the-facts/health-effects-of-alcohol/effects-on-the-body/is-alcohol-good-for-the-heart>

⁸⁹ Economic impacts of alcohol: Factsheet. London: Institute of Alcohol Studies, 2013.

⁹⁰ Economic impacts of alcohol: Factsheet. London: Institute of Alcohol Studies, 2013.

*'Consuming/drinking alcohol in the night-time economy (NTE) can have many benefits. For example, it generates economic activity and employment; it can bring people together to socialise; and it is an enjoyable pastime that many people value Alcohol consumption in the NTE has many benefits (including the generation of output/GVA, the creation of social capital and consumer surplus) . . . social capital is the value (e.g. health or employment opportunities) from creating and maintaining social networks which can be facilitated by alcohol consumption in the NTE. Consumer surplus is the value that consumers place on the alcohol over and above the price they actually pay i.e. it is the difference between how much they value it and what they pay.'*⁹¹

⁹¹ GLAECONOMICS, working paper 55 'Alcohol consumption in the night-time economy' Melisa Wickham, September 2012

4. Alcohol in Wales

‘In principle, all alcohol-attributable deaths are avoidable, and there are clear indications that policy measures can be implemented which could decrease alcohol-attributable mortality markedly in a relatively short period of time. The most important of these measures would be increased taxation, decreased availability, bans on advertising and marketing, and an increase in treatment rates for people with alcohol problems.’

WHO, 2013

‘Alcohol-related death rates for both males and females have been higher in Wales than in England over the last 10 years.’

Alcohol-related deaths in the United Kingdom, ONS 2013

‘Historical trends reported by HMRC showed that total alcohol receipts gradually trended upwards from 2008 reaching a peak of £3.084m in Quarter 4 2013.’

HM Revenue and Customs Alcohol Bulletin, April 2014

4.1 The legal framework

The Welsh Government has no legislative competence⁹² in the area of licensing of the sale and supply of alcohol and therefore no powers to require licensed premises to promote sensible drinking. The County Borough Councils in Wales are the licensing authorities. The licensing authorities could include a condition linked to the promotion of sensible consumption of alcohol within their statement of licensing policy, but the Welsh Ministers cannot force them to do so because such powers are not devolved to Wales.

Welsh Ministers do not have the legislative competence to raise a tax, charge or levy on individuals or premises that sell alcohol. There is a clear exception to the Economic Development subject (subject 4) of Schedule 7 to Government of Wales Act 2006 which specifically excludes ‘Fiscal, economic and monetary policy and regulation of international trade’. To attempt to impose a levy on licensed individuals

⁹² i.e. it has no statutory powers or duties in regard to this particular activity

or premises would be *ultra vires*, i.e. outside its legal powers, and would be subject to a successful legal challenge by the UK Government.

Thus, many of the tools and powers needed to tackle alcohol harms rest with the UK Government through the provisions of the Licensing Act 2003.

The devolution of alcohol licensing to Welsh Ministers is being pursued through the Welsh Government evidence to Part II of the Silk Commission (the Commission set up to consider the financial accountability of the National Assembly and review the Assembly's constitutional arrangements). The evidence advocated that the licensing of the sale and supply of alcohol should no longer be excluded from the Assembly's general legal competence in relation to the activities of local government. The report from the Commission, published on 3 March 2014, did not include a specific recommendation about the devolution of alcohol licensing but did suggest that licensing should be one of the issues to be considered further through the establishment of a Welsh Inter-governmental Committee. APoSM fully supports this proposal.

Therefore, due to the limitations on Ministers' under devolved powers and duties, this report has focused on an area of the Welsh Government's existing legislative framework within which it has legislative competency to make potential changes to effect positive change and address alcohol misuse by those most vulnerable in our communities. It remains an option open to the Welsh Government to negotiate amendments to its devolved powers with the UK Government in regards to alternative approaches.

However, non-devolved powers with regards to alcohol misuse can be fully utilised e.g. using existing laws concerning being drunk in a public place, drunk and disorderly, serving drunk customers, and withdrawing the licence of a licensed premise due to failure to address these issues. On-going liaison with prison, police and probation services in Wales within existing structures would be beneficial within the context of the recommendations of this report.

4.2 Welsh Government substance misuse strategy and policy on alcohol

'Working Together to Reduce Harm' published in 2008 is the Welsh Government's ten-year strategy, to address substance misuse. It sets out the agenda for the Welsh Government and its partners to reduce the harms associated with substance misuse. The strategy has four key aims: reducing harm to individuals; improving the availability and quality of education; prevention and treatment services; making better use of resources and embedding core values of sustainability, equality and diversity. The strategy is underpinned by an annual budget of £50 million.

The Welsh Government undertakes a broad range of action to reduce the harms associated with alcohol misuse, which include:

- public health campaigns to raise awareness of the dangers of alcohol misuse and the promotion of responsible alcohol consumption levels;

- working with Alcohol Concern Cymru to raise awareness of alcohol misuse issues, leading on information campaigns, developing and issuing good practice guidance and undertaking research;
- issuing guidance on substance misuse services for older people and veterans;
- working with the Home Office and Public Health Wales to support four Local Alcohol Action Area pilots in Wales to tackle alcohol-related crime and disorder, reduce alcohol-related health harms, and promote growth by establishing diverse and vibrant night-time economies;
- developing a new systematic process to review alcohol-related deaths.

The first three years of the substance misuse strategy was assessed by the University of South Wales in 2013. It found that the Strategy was sound, had widespread support and that elements of the Strategy had been implemented. The study recommended: strengthening the governance arrangements of substance misuse; providing further support for the Area Planning Boards to undertake their commissioning role effectively; improving compliance on the Welsh National Database on Substance Misuse; and developing a clear research and evaluation strategy.

The study further recommended that the aims, operation and membership of APoSM be reviewed in order to equip it to make a more proactive and effective contribution to debates about possible shifts in approach or emphasis during the lifetime of the Strategy.⁹³ The report also suggested that there is a case for a formal APoSM-led 'mid-Strategy review', and that consideration should be given to allocating more resources for support to the Board (e.g. for literature searches, small-scale research commissioning, or data analysis).

In response, the Welsh Government took a number of steps to address the recommendations of the Strategy. These included the development of the Substance Misuse Delivery Plan 2013/15; the establishment of a National Substance Misuse Partnership Board and a review of the constitution of the Advisory Panel on Substance Misuse, including the re-introduction of a formal APoSM work-plan with supporting financial resources.

4.3 Welsh Government public health white paper

The Welsh Government proposes to utilise legislation to support and complement the broad range of activity highlighted in 4.2 above. The Public Health White Paper 'Listening to You - Your Health Matters', published on 2 April 2014, proposes to implement a mandatory minimum unit price of 50p per unit of alcohol in Wales. The white paper was subject to a 12-week public consultation period which closed on the 24 June 2014. It is proposed to implement a mandatory minimum unit price of 50p per unit of alcohol (a standard unit is defined as 8g (or 10ml) of pure alcohol). The Welsh Government believes that imposing a mandatory minimum unit price for

⁹³ The newly constituted APoSM was established in July 2013 and its proposed work stream for 2014/15 agreed with the Minister. Its development is ongoing.

alcohol in Wales would further the aim of promoting health, preventing alcohol misuse and reducing alcohol-related harm and disease.

4.4 Affordability, availability and change of use

Alcohol consumption in the UK has doubled in the second half of the 20th century.⁹⁴ At the same time the price of alcohol has decreased relative to disposable income. Thus, alcohol is 61% more affordable in 2012 than it was in 1980.⁹⁵ In 2012, 87% of adults in Wales said that they drank alcohol, and 42% said that they drank more than the recommended maximum.⁹⁶

In Alcohol Concern Cymru's presentation to APoSM in February 2014 it was stated:

'In recent decades, there has been a noticeable shift away from drinking in licensed premises – pubs, clubs and bars. Research carried out by Alcohol Concern in 2010 found that 50% of drinkers in Wales said they drank only at home, and an additional 21% drank equally at home and in the pub⁹⁷ ... another undoubtedly significant reason has been the growing availability and affordability of alcohol in major grocery stores. Estimates of the proportion of alcohol sales in the UK occurring through supermarkets vary between 50% and 70%.⁹⁸ Supermarket discounting practices have made them more attractive as alcohol outlets, and 46% of drinkers in Wales say they drink at home because it's cheaper than going to the pub'.⁹⁹

An indication of this change of use and more recent pattern of use is reflected in the HMRC tax receipts for duty on alcohol. Historical trends reported by HMRC¹⁰⁰ showed that total alcohol receipts followed a consistent pattern of around £2m per quarter from 2003-2007. From 2008 alcohol receipts became slightly more volatile but have gradually trended upwards, reaching their highest level recorded of £3,084m in Quarter 4 2013.¹⁰¹

In 2012, 8,367 alcohol-related deaths (i.e. only those deaths assessed as being directly caused by alcohol) were registered in the UK.¹⁰² This represented a directly standardised rate of 11.8 deaths per 100,000 people. Of these deaths, 63% were caused by alcoholic liver disease.

⁹⁴ Alcohol Concern (2009) The price is right: Protecting communities through action on alcohol sales, London, Alcohol Concern.

⁹⁵ Office for National Statistics (2013) Statistics on alcohol: England, 2013, Leeds, Office for National Statistics, online, available from: <http://www.hscic.gov.uk/catalogue/PUB10932/alc-eng-2013-rep.pdf>

⁹⁶ Welsh Government (2013) Welsh health survey 2012, Cardiff, Welsh Government.

⁹⁷ Alcohol Concern (2010) What's the damage? Negative health consequences of alcohol misuse in Wales, online, available from: <http://www.alcoholconcern.org.uk/publications/policy-reports/whats-the-damage-negative-health-consequences-of-alcohol-misuse-in-wales> [accessed 05/02/2014].

⁹⁸ National Assembly for Wales Rural Development Sub-Committee (2010) The wine, beer, cider and spirits industries, Cardiff, National Assembly for Wales, online, available from: <http://www.assemblywales.org/cr-ld8130-e.pdf> [accessed 04/02/2014].

⁹⁹ Online survey by YouGov for Alcohol Concern, 2009. Copies available from Alcohol Concern Cymru.

¹⁰⁰ HM Revenue and Customs Alcohol Bulletin – April 2014

¹⁰¹ it should be noted there were two alcohol tax/duty increases in 2008

¹⁰² Office for National Statistics. Alcohol-related deaths in the United Kingdom, registered in 2012. Statistical Bulletin. London: Office for National Statistics; 2014.

The UK government has based its alcohol strategy on calculations that alcohol costs the UK £21 billion per year; costs that include an estimated 1.2 million alcohol-related admissions and 1 million alcohol-related violent crimes in 2010/11.¹⁰³

4.5 The context in Wales

UK Government data for 2011 on alcohol-related deaths in the UK show:

- There were 8,748 alcohol-related deaths;
- Males aged 30 years and over were significantly more likely than females to die of alcohol-related causes, and over 66% of all such deaths were among males;
- Age-specific alcohol-related death rates were highest for those aged 55 to 59 years and lowest for those aged less than 30 years;
- Alcohol-related death rates for both males and females have been higher in Wales than in England over the last 10 years;
- Female alcohol-related death rates were higher in Wales than in England;
- Between 2007 and 2010 male alcohol-related death rates were significantly higher in Wales than in England.¹⁰⁴

To contextualise the use of alcohol in the Welsh population, according to the 2011 census the total usual resident population of Wales was 3,063,456 residents.¹⁰⁵

In 2012/13, there were 12,023 referrals to specialist alcohol treatment services for primary alcohol problems, plus a further 1,380 referrals for those with combined alcohol and drug problems. In total this is 53.6% of all referrals to substance misuse treatment services. Almost half (42%) of adults in Wales put themselves at risk of harm through exceeding the recommended daily limit.¹⁰⁶

Hospital admissions, for all ages, with alcohol specific primary diagnosis, decreased by 12.6% over the period 2008-2012.¹⁰⁷ But admissions where there is 'any mention of' alcohol-specific diagnoses have remained relatively stable over the same period

¹⁰³ Home Office. The Government's alcohol strategy. Cm 8336. London: TSO; 2012.

¹⁰⁴ Alcohol-related deaths in the United Kingdom, 2011, dated 29 January 2013, Statistical bulletin, Office for National Statistics

¹⁰⁵ Krausova, Anna and Carlos Vargas-Silva. "Wales: Census Profile." Migration Observatory briefing, COMPAS, University of Oxford, UK, March 2014

¹⁰⁶ Roberts C. Welsh Health Survey 2012: Summary Results Cardiff, UK: Knowledge and Analytical Services, Welsh Government; 2013.

¹⁰⁷ Welsh Government and Public Health Wales. Profile of substance misuse in Wales 2012-13 : Education, health and criminal justice data. Available at:
<http://wales.gov.uk/docs/dhss/publications/131031profilesmeduhealthjusten.pdf>

with 15,071 admissions¹⁰⁸ in 2012; consistent with the five-year average for 2008/12 of 15,175.¹⁰⁹

Data from Wales show more than 63,000 hospital admissions in 2011/12 in which an alcohol-related diagnosis was recorded anywhere on the individual's record. As shown in Figure 7, for 24% of these admissions, the primary diagnosis was specifically attributable to alcohol.

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Alcohol-related NHS hospital admissions based on primary and secondary diagnoses	41,479	44,788	46,669	53,116	56,357	55,498	59,274	58,555	62,734	63,235
NHS hospital admissions with a primary diagnosis wholly or partly attributable to alcohol	11,556	12,078	12,315	13,765	14,925	14,599	14,942	14,696	15,398	15,461

Source, Welsh Government 2013

Figure 7: Alcohol-related hospital admissions, Wales, 2002-03 to 2011-12.

This indicates that underlying alcohol-specific diagnoses remain an issue for many across Wales, potentially impacting on overall health and quality of life as well as being a substantial cost burden to the NHS.

Of 25,000 referrals to treatment services recorded on the Welsh National Database for Substance Misuse in 2012/13, 12,023 (48.1%) were for alcohol alone. In total 14,468 (57.9%) of those referred for treatment reported using alcohol. Where the main problematic substance was recorded as alcohol, 63.2% of all those referred were male. Individuals in the 40 to 49 year age category were the most frequently referred, accounting for 29.5% of all those referred who reported alcohol as their main problematic substance.¹¹⁰

The database records the number of individuals who have actually begun treatment. From 2008/09 to 2011/12, this number has fallen year-on-year for those reporting alcohol as their main problematic substance, but rose by 3.9% in 2012/13 compared with the previous year.

Year	Individuals starting treatment
2008/09	11,191
2009/10	8,952
2010/11	8,501
2011/12	7,253
2012/13	7,533

¹⁰⁸ Admissions were included if they were recorded under the following ICD-10 codes: E24.4; F10.0-F10.9; G31.2; G62.1; G72.1; I42.6; K29.2; K70.0-K70.9; K86.0; T51.0; T51.1; T51.9; X45.0-X45.9

¹⁰⁹ Public Health Wales. Internal technical document to support development of 'Draft Liver Disease Delivery Plan for Wales'.2014 (in development)

¹¹⁰ Welsh Government. Profile of Substance misuse in Wales 2012-13. Welsh National Database for Substance Misuse (Treatment data). Cardiff: Welsh Government; 2013

Figure 8: Individuals starting treatment reporting alcohol as main problematic substance

Despite decreases in self-reported alcohol use and alcohol-related hospital admissions, there were 504 alcohol-related deaths in Wales in 2012, an increase of 9.8% compared with the previous year.¹¹¹ Alcohol-related death rates in Wales have been higher than in England over the last 10 years for both males and females.¹¹²

In addition to general hospital admissions, admission to psychiatric hospitals in Wales which included any mention of an alcohol specific diagnosis increased by 10.2% from 2011 (n=744) to 2012 (n=820). Over the last five year period, admissions declined during 2008-2010; however, increases have been observed more recently amongst males with primary alcohol specific diagnosis and, more gradually, amongst females, diagnosis primary and any mention of, as shown in Figure 9.

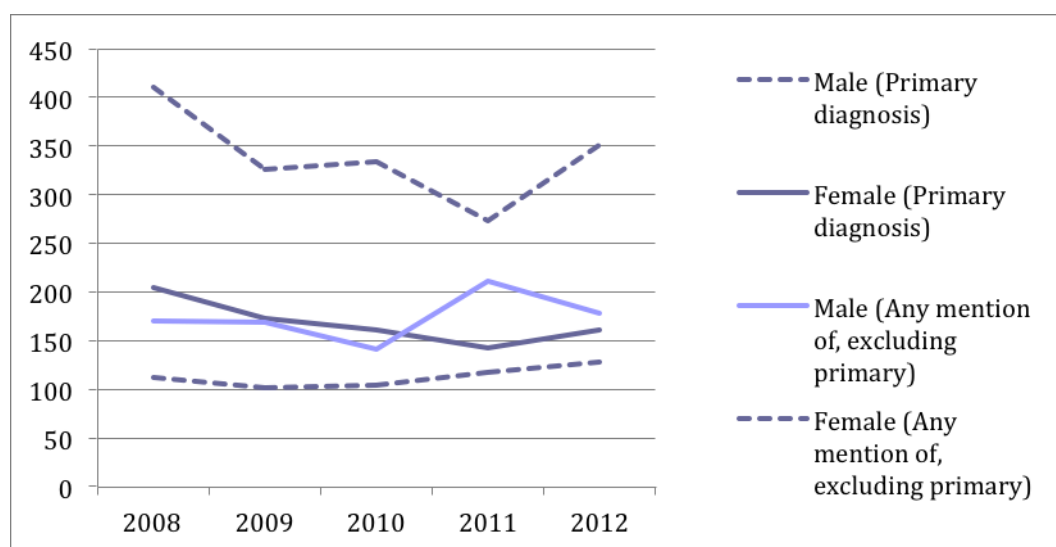
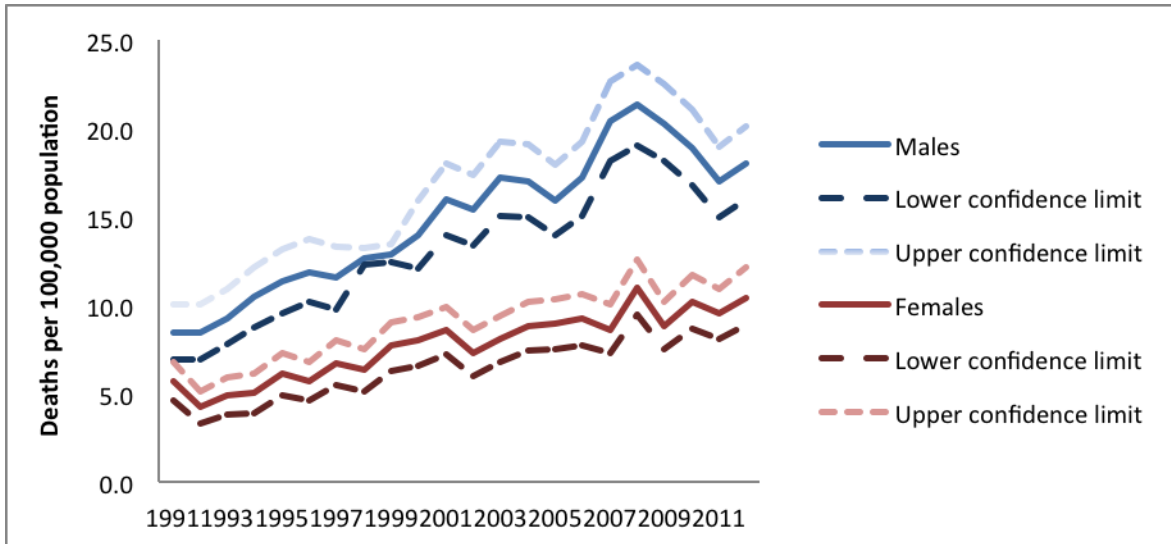


Figure 9: Psychiatric hospital admissions with an alcohol related diagnosis (primary and any position) by gender 2008 to 2012

Figure 9 shows trends in alcohol-related mortality in Wales for men and women over the 21 years to 2012. In 2012, there were 504 alcohol-related deaths in Wales, representing 2.0% of all deaths amongst men and 1.2% of all deaths amongst women. When these rates are directly standardised (using the 1976 European Standard Population to control for variations in the age structure of different populations) this represents a rate of 18.0 deaths per 100,000 men and 10.4 deaths per 100,000 women in Wales. The comparable rates for the United Kingdom are 15.9 deaths per 100,000 men and 7.8 deaths per 100,000 women.

¹¹¹ Welsh Government and Public Health Wales. Profile of substance misuse in Wales 2012-13 : Education, health and criminal justice data. Available at: <http://wales.gov.uk/docs/dhss/publications/131031profilesmeduhealthjusten.pdf>

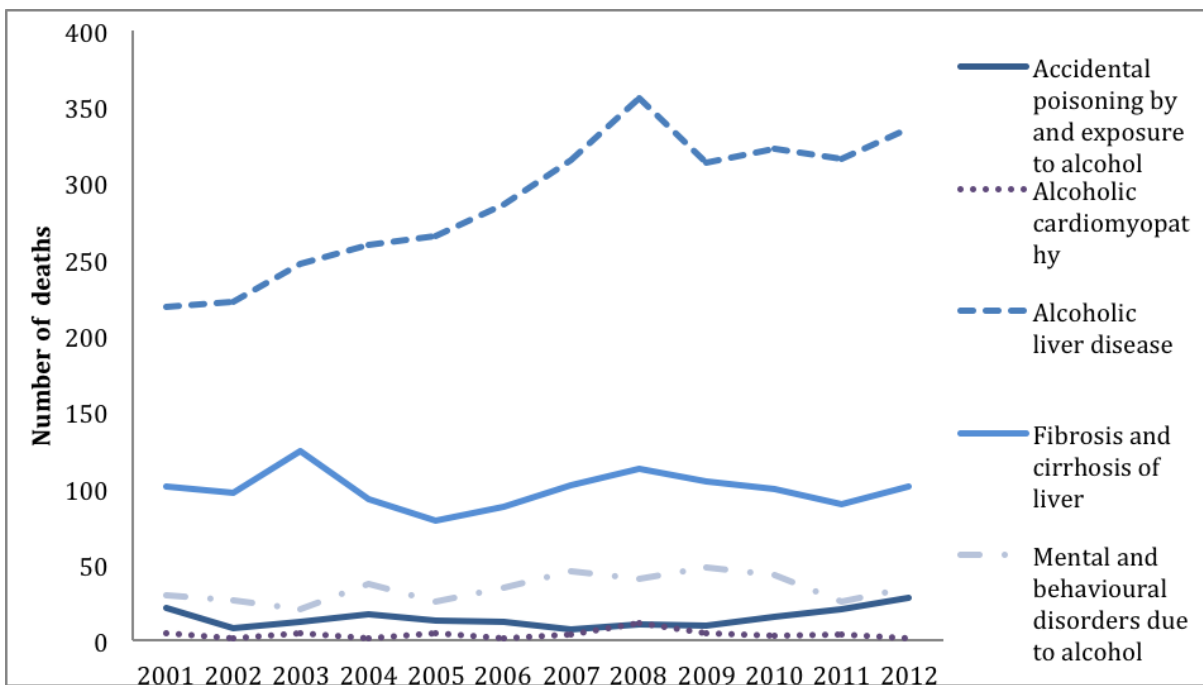
¹¹² Office for National Statistics. 2013. Alcohol-related deaths in the United Kingdom 2011. Available at: Alcohol-related deaths in the United Kingdom, 2011



Source, ONS, 2013

Figure 9: Crude rates of alcohol-related deaths in Wales by gender, 1991-2012

The five most common causes of alcohol-related deaths in Wales over the period 2001-12 are shown in Figure 10. As shown, alcoholic liver disease was the most frequently recorded cause of death in each of these years. Deaths from this cause have increased by 53% over the period and in 2012 accounted for 336 deaths, more than three times the number of deaths recorded for fibrosis and cirrhosis of the liver, the next most frequently recorded cause of death.



Source, Patient Episode Database for Wales, 2013

Figure 10: alcohol-related deaths in Wales, 2001-12, by the five most-frequently recorded causes

4.6 Socio-economic issues

The 2011 report on the Welsh index of multiple deprivation took into account the indicators of employment, income, education, health, community safety, geographical access to services, housing and physical environment. As the report states, 'understanding how disadvantaged people are distributed through Wales by carrying out the following kind of analysis is important when developing area based policies, programmes and funding'. In times of austerity short-term financial savings tend to be prioritised before longer-term interventions. Such evidence demonstrates the importance of focussing on the needs of more vulnerable groups is imperative. Moreover ineffective interventions should be identified so that limited available resources are diverted away from such interventions and properly target interventions that work i.e. a focus on evidence-based policies.

The Council of Europe Pompidou Group's pan-European paper on the negative impact of austerity measures, confirms that vulnerable groups are disproportionately targeted by such measures.¹¹³

As stated by Nils Muižnieks, the European Commissioner for Human Rights:

'Many governments in Europe imposing austerity measures have forgotten about their human rights obligations, especially the social and economic rights of the most vulnerable, the need to ensure access to justice, and the right to equal treatment ... The economic crisis has had dire consequences on vulnerable groups, in particular on children and young persons ... Governments should focus on reducing youth and long-term unemployment as a priority and on upholding social protection floors for basic income and health care during the crisis ... Furthermore, governments should carry out systematic human rights and equality impact assessments of social and economic policies and budgets, especially as regards vulnerable groups of people ... Positive measures in favour of disadvantaged groups, including people with disabilities, Roma and women, are needed to address disproportionate and compound effects of the crisis and austerity measures.'

These concerns need to inform public health policies proposed to address alcohol misuse. Across England and Wales, alcohol-related mortality is greatest in more disadvantaged socio-economic groups; those that traditionally experience relatively lower levels of income and job security.¹¹⁴ Research by the ONS found that:

*'Rates of alcohol-related mortality in England and Wales increased significantly for people between the early 1990s and early 21st century and were substantially greater for those in more disadvantaged socio-economic classes. There is also evidence that these socio-economic differences were greater at younger ages, especially for men at ages 25-49.'*¹¹⁵

¹¹³ Athens declaration on protecting public health by ensuring essential services in drug [policy under austerity budgets, adopted at the 73rd meeting of Permanent Correspondent 26-27 November 2013.

¹¹⁴ Siegler V, Al-Hamad A, Johnson B, Wells C, Sheron N. Social inequalities in alcohol-related adult mortality by National Statistics socio-economic classification, England and Wales, 2001-2003. Health Statistics Quarterly. 2011;50.

¹¹⁵ Health Statistics Quarterly, ONS

The more disadvantaged or economically disadvantaged are disproportionately represented in the mortality data.¹¹⁶

Those enduring greatest levels of disadvantage are more likely to binge drink compared to less deprived groups, but were less likely to report excess consumption. This suggests that it is differences in drinking style (or pattern of drinking) rather than total quantity of alcohol consumed that differs across socio-economic groups. In Wales, as elsewhere, deprivation interacts with age and gender.¹¹⁷ At all levels of deprivation, males in the 25-34 year age group have the highest probability of binge drinking. The effect of neighbourhood deprivation increasing the probability of binge drinking is most marked in males aged 35-64.¹¹⁶

Drinking patterns also influence the degree of alcohol related harm. The relationship between alcohol and harm is clustered in more deprived socio-economic groups and may be associated with drinking style as much as volume of alcohol consumed, such that episodes of severe intoxication are harmful even if the overall volume of alcohol consumed over a month is not as great as those with regular drinking patterns. Even if the overall volume or units of alcohol consumed over a month period is less, a few episodes of severe intoxication may be more harmful than regular drinking patterns.¹¹⁶

From a prevention and risk management perspective, the likelihood of cancer increases linearly as the volume of alcohol consumed increases. Interventions should therefore be aimed at addressing reduction of consumption generally, as well as targeting chronic heavy drinkers and those who binge drink.¹¹⁸

Since alcohol-related harm is unevenly distributed across society, it falls on some of those in the more disadvantaged socio-economic groups more heavily than on others. It is the more deprived socio-economic groups in society who are most likely to misuse the cheapest forms of alcohol and therefore endure alcohol-related harm. Alcohol therefore makes an important contribution to health inequality. Because MUP affects the price of the most inexpensive forms of alcohol it is therefore well targeted at reducing these health inequalities. Reducing the harm that alcohol causes will therefore also reduce health inequalities. As Dr Nick Sheron stated in his presentation at the APoSM expert evidence gathering day, MUP is a public health tool which “exquisitely targets” the most vulnerable groups of our communities.

It is concerning that the British Beer & Pub Association also confirm negative findings in relation to alcohol consumption: that alcohol consumption per capita rose from 7.4 litres in 1980 to 8.0 by 2012; alcohol-related deaths per thousand population from 6.9 in 1991 to 11.8 in 2012; and alcohol-related hospital admissions rose from 1.24% of total admissions in 2002/03 to 1.34% in 2011/12.

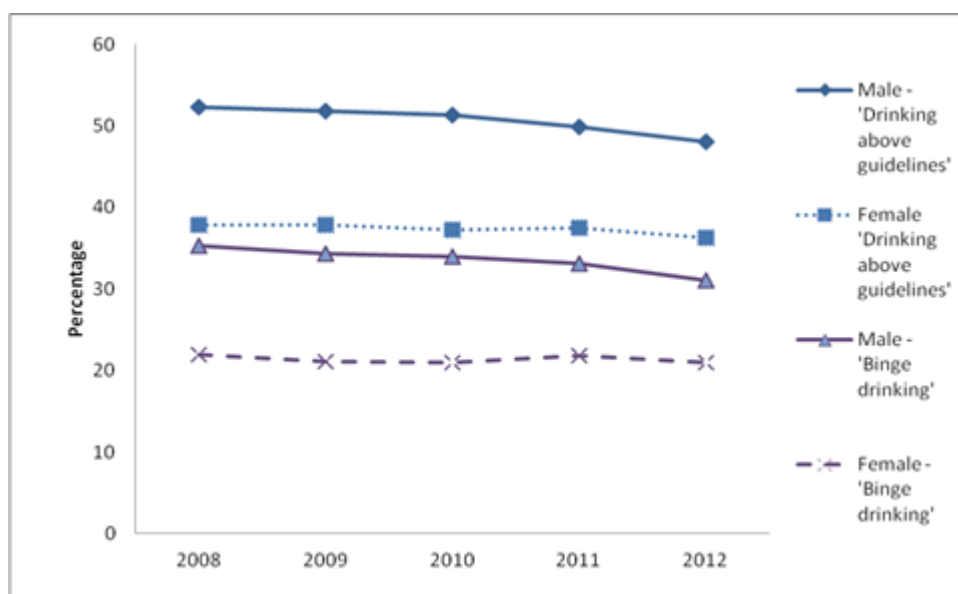
¹¹⁶ Jones L, Bellis MA, Dedman D, Sumnall H, Tocque K. Alcohol-attributable fractions for England: alcohol-attributable mortality and hospital admissions. Liverpool, UK: Centre for Public Health, Liverpool John Moores University, 2008.

¹¹⁷ Fone DL, Farewell DM, White J, Lyons RA, Dunstan FD. Socioeconomic patterning of excess alcohol consumption and binge drinking: a cross-sectional study of multilevel associations with neighbourhood deprivation. *BMJ Open*. 2013;3(4).

¹¹⁸ Status report on alcohol and health in 35 European countries 2013, WHO regional office for Europe, page 4 and page 10

4.7 Gender

According to the Welsh Health Survey¹¹⁹ the proportion of males reporting heavy episodic drinking, binge drinking, has reduced over the five-year period 2008/2012 from 35% to 31% but amongst females there was only marginal reduction, from 22% to 21%.^{120,121} Self-reported 'drinking above recommended guidelines' has also decreased. These figures should be treated with caution, as drinkers are often reluctant to report how much they drink or do not keep track of how much they drink. For these reasons estimates of alcohol-use based on self-reported data are unlikely to capture the true prevalence of alcohol misuse. In any event, rates remain high, with 48% males and 36% females reporting regular excessive alcohol consumption in 2012, as shown in Figure 11.



Source, Welsh Health Survey 2011 and 2012

Figure 11: Self reported 'binge drinking' and 'drinking above guidelines' amongst Adult Welsh Residents by gender 2008-2012

4.8 Age

According to the HBSC report 2009-10, in Wales 2% of girls and 5% of boys aged 11 years old reported drinking alcohol at least once a week rising to 14% for both girls and boys aged 13 years. Among 15-year-olds in Wales, the rate rises to 29% for girls and 35% for boys, the highest rates recorded in the UK and the Republic of Ireland. Wales records the third-highest rates of drunkenness (drunk at least twice)

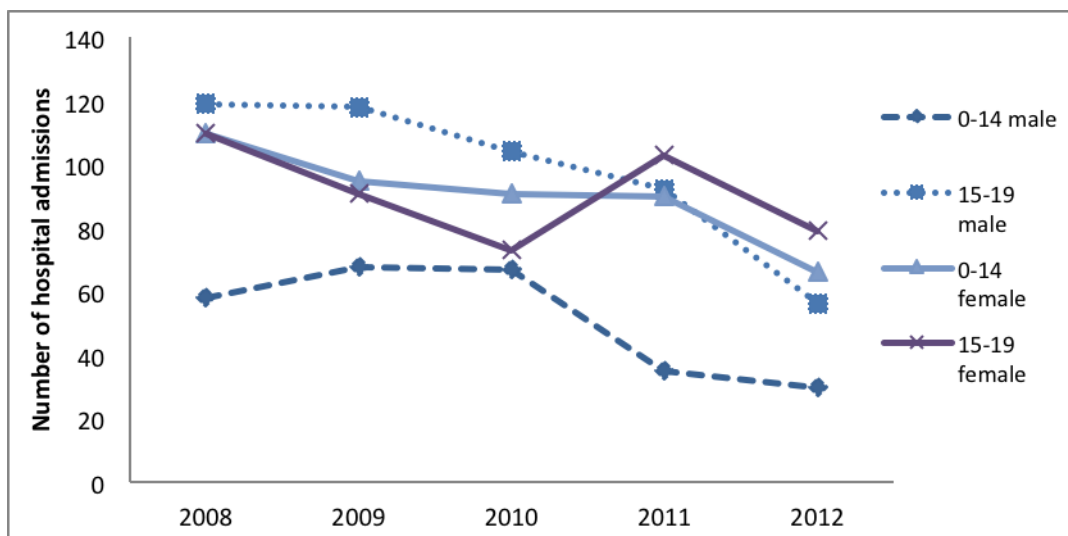
¹¹⁹ Welsh Government, Knowledge and Analytical Services. Welsh Health Survey 2011 and 2012, Local Authority / Local Health Board Results. SB87/2013. 2013. Available at: <http://wales.gov.uk/docs/statistics/2013/130911-welsh-health-survey-local-authority-health-board-results-2011-2012-en.pdf>

¹²⁰ Welsh Government, Knowledge and Analytical Services. Welsh Health Survey 2011 and 2012, Local Authority / Local Health Board Results. SB87/2013. 2013. Available at: <http://wales.gov.uk/docs/statistics/2013/130911-welsh-health-survey-local-authority-health-board-results-2011-2012-en.pdf>

¹²¹ Welsh Government and Public Health Wales. Profile of substance misuse in Wales 2012-13 : Education, health and criminal justice data. Available at: <http://wales.gov.uk/docs/dhss/publications/131031profilesmeduhealthjusten.pdf>

for both 13 and 15 year olds amongst all countries contributing to the HBSC report.
122

Although hospital admissions for acute alcohol intoxication and alcohol specific diagnoses amongst 0-14 and 15 to 19-year-olds in Wales indicates a downward trend in admissions over the period 2008/2012 for both girls and boys with the exception of girls aged 15-19 in 2011. The figures regarding alcohol misuse in this age group remain a matter of significant concern. Despite there being an overall decrease of 41% in admissions for acute alcohol intoxication and alcohol-specific diagnoses over the five year period as indicated in Figure 12, the number need to be further decreased in order to address the needs of this particularly vulnerable group. It is anticipated that following the introduction of minimum unit pricing, this downward trend amongst young people would continue.

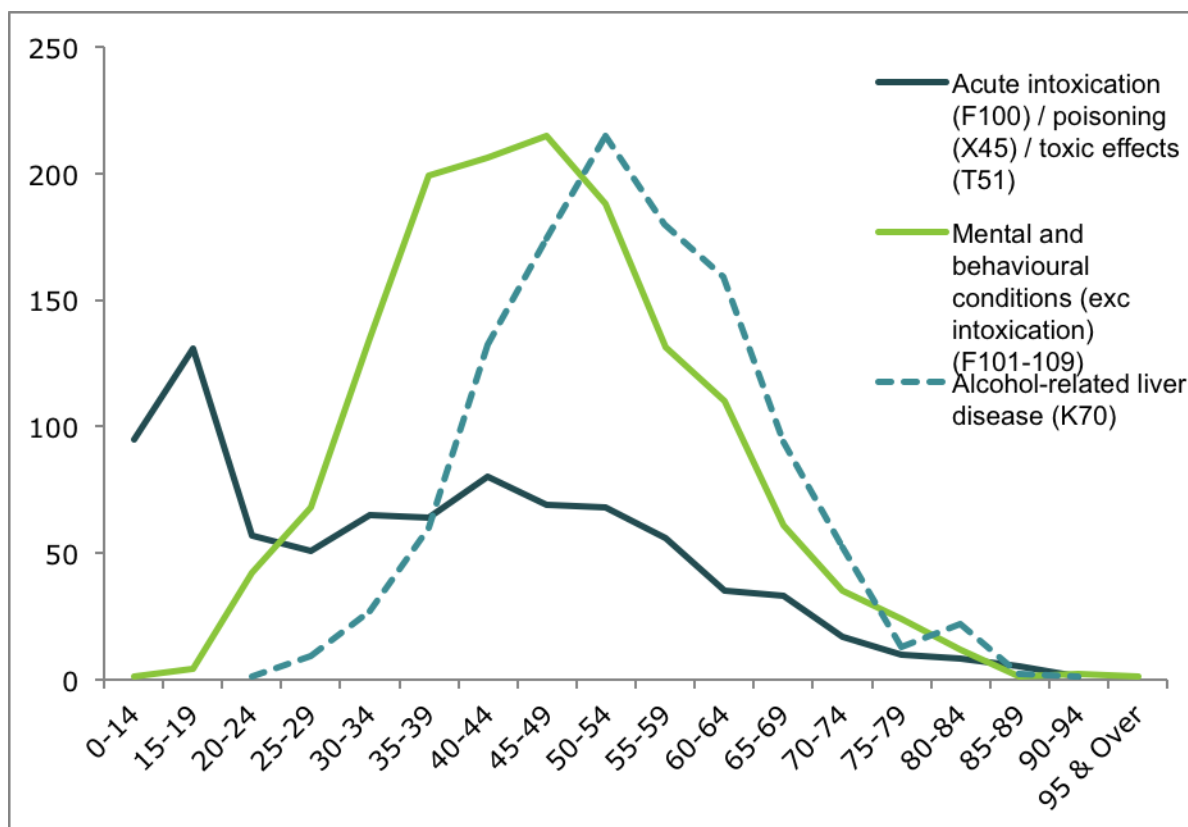


Source, Source, Patient Episode Database for Wales 2013

Figure 12: Alcohol related hospital admissions in Wales amongst young people 2008-2012.

There is considerable variation in the number of people admitted to hospital for different alcohol-related conditions across different age groups. As Figure 13 shows, the majority of those for whom acute intoxication or alcohol poisoning was the primary diagnosis on admission to hospital were younger. This Figure also shows that alcohol-related liver disease, a major cause of alcohol-related mortality and morbidity, is most frequently diagnosed in those between 50 and 54 years: people who are of working age.

¹²² Currie C et al. eds. *Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: international report from the 2009/2010 survey.* Copenhagen, WHO Regional Office for Europe, 2012 (Health Policy for Children and Adolescents, No. 6).



Source, Source, Patient Episode Database for Wales 2013
Figure 13: Hospital admissions by alcohol related conditions and age 2012

The Welsh Health Survey⁵ provides annual self-report data, which includes alcohol consumption; specifically the measures of drinking above recommended guidelines on at least one day in the past week and binge drinking (drinking twice the daily guideline amount) on at least one day in the past week. As indicated in Figure 15, over the five-year period 2008 to 2012 the proportion of males and females aged 16 or over self-reporting these measures have declined very slightly.

Over the period 2001/2011, aggregated ONS data for Wales indicates that the majority of alcohol-related deaths occur in the 50 to 64 year old age group, for both males and females.¹²³ With the exception of acute alcohol poisonings, the majority of the conditions resulting in alcohol-related deaths (e.g. alcoholic liver disease and cancer) may take many years to establish and develop. Due to the significant delay in the manifestation of some diseases alcohol-related deaths in 2014 are probably due to alcohol consumption, over previous years, up to 20 years earlier. Using alcohol-attributable fractions for both morbidity and mortality and applying these to the increase in consumption over the last 20 years thus – worryingly - indicates that alcohol-related disease will have a far greater impact over the coming years than current consumption figures indicate.¹²⁴

¹²³ Office for National Statistics. 2013. Alcohol-related deaths in the United Kingdom 2011. Available at: Alcohol-related deaths in the United Kingdom, 2011

¹²⁴ Centre for Public Health, Liverpool John Moores. Updating England-Specific Alcohol-Attributable Fractions. 2014. Available at: <http://www.cph.org.uk/wp-content/uploads/2014/03/24892-ALCOHOL-FRACTIONS-REPORT-A4-singles-24.3.14.pdf>

4.9 Diverse communities

According to some estimates, substance and alcohol misuse is lowest among Black Asian and Minority Ethnic (BAME) communities.¹²⁵

*'Historically people from certain minority ethnic groups report lower levels of drinking, and fewer minority ethnic individuals present to alcohol services with problems related to alcohol misuse ... Most minority ethnic groups have higher rates of abstinence and lower levels of frequent and heavy drinking when compared with the British population as a whole and to people from white backgrounds. Drinking patterns vary both between and within minority groups ... People from mixed ethnic backgrounds have high rates of current use and are less likely to abstain than people from non-white minority ethnic groups. People from mixed ethnicities also report relatively high rates of heavy and very heavy drinking compared with other non-white ethnicities.'*¹²⁶

However, there is also evidence that estimates are subject to both under-reporting and that BAME communities are under-represented in substance misuse treatment services.¹²⁷ For example, some Third Sector agencies (non-Governmental groups providing specialist treatment), who report that users in their services mostly use opiates, are predominantly white, male and in their mid to late twenties, argue that under-representation is not a reflection of the extent of substance misuse in these communities but because services do not accommodate the needs of diverse communities.¹²⁸ No Welsh specific figures could be obtained for this part of the report and such data will need to be collated in future.

There is also limited data on the prevalence of alcohol misuse among Lesbian, Gay, Bisexual and Transgender (LGBT) communities, further compounded by the data only including individuals willing to disclose their sexual/gender identity. It is therefore likely that LGBT people may be under-represented in the statistics. According to the UK Drug Policy Commission alcohol use is higher among LGBT groups than heterosexual groups.¹²⁹

¹²⁵ Beddoes et al, (2010) Drugs and Diversity: Ethnic Minority Groups, UK Drug Policy Commission, 2.

¹²⁶ Ethnicity and alcohol,, a review of the UK literature, Rachel Hurcombe, Mariana Bayley, Anthony Goodman, Joseph Rowntree Foundation, July 2010

¹²⁷ Scheppers, E., Van Dongen, E., Dekker, J., Geertzen, J., Dekker, J., (2005) Potential barriers to the use of health services among ethnic minorities: a review. Family Practice 23 (3), 325-348.

¹²⁸ Daniel, T., (1993) Ethnic minorities' use of drug services, Druglink, 16.

¹²⁹ Beddoes et al, (2010) The Impact of Drugs on Different Minority Groups: Lesbian, Gay, Bisexual and Transgender groups, UK Drug Policy Commission, 8.

5 Available methods to address alcohol-related harm

‘Licence enforcement, server training, community- and workplace-based interventions, pricing policy (e.g. reducing “two-drinks-for-one” offers), coordination of public transport and closing times, advice by doctors or nurses in primary health care to people at risk, and treatment, are interventions that appear effective to prevent alcohol-related harm among adults and reduce the negative impact on the workplace. Education, information activities and campaigns promoting moderate consumption, or addressing drink-driving, alcohol during pregnancy and under-age drinking, can be used to mobilise public support for interventions.’

European Commission Communication 2006

Health is determined by a complex set of interacting factors including individual and interpersonal characteristics. These in turn are influenced by organisational and community level factors that includes the built environment.¹³⁰ Public policy plays an important role in shaping behaviour through influencing these interactions. There is therefore a range of policy options by which efforts can be focussed upon reducing the impact of alcohol.

The WHO has pointed out:

‘In principle, all alcohol-attributable deaths are avoidable, and there are clear indications that policy measures can be implemented which could decrease alcohol-attributable mortality markedly in a relatively short period of time. The most important of these measures would be increased taxation, decreased availability, bans on advertising and marketing, and an increase in treatment rates for people with alcohol problems.’¹³¹

¹³⁰ McLeroy, K. R., Steckler, A. and Bibeau, D. (Eds.) (1988). The social ecology of health promotion interventions. *Health Education Quarterly*, 15(4):351-377. Retrieved May 1, 2012, from http://tamhsc.academia.edu/KennethMcLeroy/Papers/81901/An_Ecological_Perspective_on_Health_Promotion_Programs.

¹³¹ Relying on the research of: Chisholm D et al. *Alcohol policy cost-effectiveness briefing notes for 22 European countries*. London, Institute of Alcohol Studies, 2009; Lhachimi SK et al. Health impacts of increasing alcohol prices in the European Union: a dynamic projection. *Preventive medicine* 2012, 55:237-243; Rehm J et al. Modelling the impact of alcohol dependence on mortality burden and the effect of available treatment interventions in the European Union. *European Neuropsychopharmacology*, 2013, 23: 89-97.

There is also evidence that action to reduce the burden of alcohol-related harm would be welcome. However, the public is ambivalent about Government intervention. A UK government-sponsored research report stated:

‘A majority (65%) agreed that the Government needs to take action to stop people drinking too much, but there was also high agreement (57%) that how much you drink is a personal choice and the Government shouldn’t interfere . . . Around one in four respondents . . . agreed both that the Government needs to take action to stop people drinking too much AND that how much you drink is a personal choice and the Government should not interfere. This seemingly conflicting view might be interpreted as a feeling that the problem-drinking minority needs to be tackled by the Government but responsible drinkers (like them) should be left alone.’¹³²

Of the available options, the alcohol industry broadly supports sensible drinking guidelines, responsible drinking messages, industry-wide agreements, voluntary codes, and best-practice agreements.^{133,134,135} In contrast public health practitioners favour minimum pricing and restricting availability. Other policy options include changing the regulations concerning alcohol marketing and advertising, restricting where and when alcohol can be sold, improving education about alcohol-related harm and entering into voluntary agreements with the alcohol industry.

5.1 Availability

Measures aimed at controlling the availability of alcohol can be characterised as: ‘the Four Ps’ – Price, Place, Promotion and Product. Consumers are sensitive to the price of alcohol and respond to price increases by reducing consumption. There are also limitations under EU law about how EU countries are able to adjust duty and tax arrangements under international treaties regarding freedom of movement of goods, and there is public resistance to higher alcohol taxes and duties. The debate regarding alcohol misuse has recently focused on tackling the problem of cheap alcohol. Two approaches have emerged: minimum unit pricing and a ban on low-cost sales.

‘Place’ covers the locations where alcohol can be purchased and consumed. Limitations on these locations can be effective in reducing the opportunities for drinking alcohol. However, using the Internet can avoid such licensing restrictions. For example an investigation by Alcohol Concern Cymru found that many online

¹³² Banerjee J *et al* 2010 *Public Perceptions of Alcohol Pricing* BDRG Continental, for COI on behalf of the Home Office.

¹³³ Andrew Lansley, Health Secretary after the coalition Government took power in May 2010, said: “Rather than nannying people, we will nudge them by working . . . collaboratively with business and the voluntary sector through a new Responsibility Deal.” (quoted in Gornall 2014)

¹³⁴ quoted in Gornall J 2014 ‘Under the influence’ *BMJ* 2014;348:f7646.

¹³⁵ ‘. . . self-regulation, the industry’s traditional defence against intervention, [is] . . . ineffective. In 2005, a World Health Organization review of 32 European alcohol strategies had found that the most effective measures included state imposed controls on price and availability. At the other end of the spectrum were “a series of measures for which it has been difficult to find a direct positive effect on drinking patterns or problems.” These included the public service campaigns, education initiatives, and voluntary self-regulation preferred by the alcohol industry. (Gornall 2014 ‘Under the influence: Scotland’s battle over alcohol pricing’ *BMJ*)

supermarket grocery services and late-night and 24-hour home delivery services made alcohol more accessible to young people because age checks were not properly carried out.¹³⁶

'Promotion' covers advertising and marketing, and 'Product' refers to the types of offers that the alcohol industry makes to its customers. For example the marketing of 'alco-pops' was widely seen as targeting young female drinkers.¹³⁷

5.2 Advertising, marketing and consumer information

Alcohol Concern suggests that alcohol companies market their products to drinkers, especially to young adults, using creative methods; for example co-opting traditional celebrations¹³⁸ and embracing new forms of communication with young people such as social media. Social networking sites provide new opportunities for alcohol marketing and are a forum to bring producers and consumers together, so the site owners have access to an 'avalanche' of data on preferences and habits, providing a 'bonanza for alcohol-marketing data-miners'.¹³⁹ The use of social media communication links of 'liking', 'friending', tweets and wall posts allows alcohol marketers additional access to young people. Young people often use social media to describe (and celebrate) alcohol-related activity which tends to normalise (often dangerous) drinking behaviour¹⁴⁰. A paper exploring 'Youth drinking cultures, social networking and alcohol marketing' concluded:

*'The rapid growth in the use of new social networking technologies raises new issues regarding alcohol marketing, as well as potential impacts on alcohol cultures more generally. Young people, for example, routinely tell and re-tell drinking stories online, share images depicting drinking, and are exposed to often intensive and novel forms of alcohol marketing.'*¹⁴¹

Research also shows that marketing affects young people. A review of 13 longitudinal studies that included more than 38,000 10 to 21-year-olds showed that 12 of the studies found an impact of exposure to alcohol marketing practices on subsequent alcohol use; including heavier drinking among existing drinkers and initiation of drinking in previous non-drinkers.¹⁴² Brand allegiance at age 13 to 14

¹³⁶ Alcohol Concern 2013 *On your doorstep Underage access to alcohol via home delivery services* Alcohol Concern

¹³⁷ for example, see: <http://alcoholjustice.org/press-room/press-releases/939-diageo-admits-targeting-18-24-year-olds-for-red-stripe-alcopop.html> [accessed 25-03-14]

¹³⁸ For example, as *The Economist* put it: 'Publicans love St Patrick's day, so much so that it can sometimes feel like less a celebration of Irish culture than a marketing event for Guinness's owner, Diageo.' *The Economist* March 16th 2014 'Why Guinness is less Irish than you think'

¹³⁹ McCreanora T et al 2013 'Youth drinking cultures, social networking and alcohol marketing: implications for public health' *Critical Public Health*, 23, 1, pp 110–120

¹⁴⁰ A recent example of this is the 'Neknominate', an online drinking game requiring the participant to film themselves drinking a pint of an alcoholic beverage in one gulp, upload the footage to the web, and nominate two others to do the same. Alcohol companies have steered clear of this controversial form of drinking.

¹⁴¹ McCreanora T et al 2013 'Youth drinking cultures, social networking and alcohol marketing: implications for public health' *Critical Public Health*, 23, 1, pp 110–120

¹⁴² Anderson P et al 2009 'Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies'. *Alcohol* 2009. 44, 3 p 229-43.

years has been related to drinking patterns.¹⁴³ Professor Foxcroft told the House of Commons Health Committee Inquiry that systematic reviews:

*'suggest that exposure to alcohol advertising in young people influences their subsequent drinking behaviour. The effect was consistent across studies. A temporal relationship between exposure and drinking initiation was shown, and a dose response between amount of exposure and frequency of drinking was clearly demonstrated in three studies. It is certainly plausible that advertising would have an effect on youth consumer behaviour as has been shown for tobacco and food marketing.'*¹⁴⁴

The alcohol industry is a sponsor of sporting events and there is evidence that sports-people drink more alcohol, in a more hazardous manner, than non-sports-people.¹⁴⁵ Furthermore from studies undertaken in Australia and New Zealand it was found that sports-people who were sponsored by alcohol-related industries drink in a more hazardous way than those not sponsored by alcohol industries.¹⁴⁶

It is therefore important that the regulation of advertising and marketing for alcohol is considered as one of the potential tools for control of alcohol. In the UK, controls covering broadcast, print and online advertising are a hybrid approach of self-regulation (administered by the Advertising Standards Authority, the Portman Group (an alcohol industry-funded body) and co-regulation (with Ofcom). The Portman Code covers marketing such as sponsorship, promotion and product packaging. The current regulatory system and codes of conduct do not prevent children and young people from being exposed to alcohol marketing. Professor Hastings, Advisor to the House of Commons Health Committee, concluded that there were:

*'major shortcomings in the current self-regulatory codes covering alcohol advertising. Specifically, the codes do not, as they are supposed to, protect young people from alcohol advertising; prevent the promotion of drunkenness and excess; or the linking of alcohol with social and sexual success. Nor do they even attempt to address sponsorship, and the documents show this is being systematically used to undermine rules prohibiting the linking of alcohol with youth culture and sporting prowess. Finally, the codes are extremely weak in their treatment of new media which are rapidly becoming the biggest channel for alcohol promotion... the result is a regulatory system that is impossible to police and vulnerable to exploitation.'*¹⁴⁷

A different model of alcohol advertising regulation is used in France, which has the 'Loi Evin', the alcohol and tobacco policy law named after a previous Minister for Health. Under this law, places and media where advertising is authorised are defined: the law include a number of restrictions on marketing alcohol: no advertising

¹⁴³ Lin E *et al* 2012 'Engagement with alcohol marketing and early brand allegiance in relation to early years of drinking'. *Addiction Research & Theory*, 20, 4, pp 329-338.

¹⁴⁴ House of Commons Health Committee *Alcohol First Report of Session 2009–10 Volume I Report* House of Commons 10 December 2009, paragraph 184

¹⁴⁵ O'Brien K and Kypri K 2008 'Alcohol industry sponsorship and hazardous drinking among sportspeople' *Addiction* 103, 12 pp 1961-1966.

¹⁴⁶ O'Brien K *et al* 2011 'Alcohol industry and non-alcohol industry sponsorship of sportspeople and drinking' *Alcohol and Alcoholism*, 2011 46, 2 pp 210-213.

¹⁴⁷ House of Commons Health Committee 2009 *op cit*, paragraph 190

should be targeted at young people; no advertising is allowed on television or in cinemas; no sponsorship of cultural or sport events is permitted; and advertising is permitted only in the press for adults, on billboards, on radio channels, at special events or places such as wine fairs. When advertising is permitted, its content is controlled. Messages and images should refer only to the qualities of the products such as degree, origin, composition, and means of production and patterns of consumption. In addition a health message must be included on each advertisement to the effect that 'l'abus d'alcool est dangereux pour la santé' ('alcohol abuse is dangerous for health')¹⁴⁸.

The alteration of the Advertising Standards Authority code of conduct¹⁴⁹ in regards to alcohol marketing and advertising, as well as a more formal legislative policy change, should be considered.

European Community law already regulates certain aspects of commercial communication¹⁵⁰, and some instruments are being reviewed and updated. In addition, the use of self-regulatory best practices to set effective parameters for the behaviour of advertisers and the alignment of advertising practice with changing social expectations are to be encouraged.¹⁵¹

5.3 Voluntary arrangements with the alcohol industry

The self-regulatory codes regarding alcohol advertising are not working effectively. While the UK government favours self-regulation, and has instituted a voluntary agreement with the alcohol industry, this 'Public Health Responsibility Deal'¹⁵² has been subject to criticism,¹⁵³ and the withdrawal of some organisations and experts involved with it.¹⁵⁴ The House of Lords Science and Technology Select Committee stated:

*'we have major doubts about the effectiveness of voluntary agreements with commercial organisations, in particular where there are potential conflicts of interest.'*¹⁵⁵

As a recent paper in the *British Medical Journal* pointed to the evidence:

¹⁴⁸ Information from IAS website <http://www.ias.org.uk/What-we-do/Publication-archive/The-Globe/Issue-2-2004-1-2004/The-Loi-Evin-a-French-exception.aspx> [accessed 25-03-14]

¹⁴⁹ the Committee of Advertising Practice (CAP) and the Broadcast Committee of Advertising Practice (BCAP)

¹⁵⁰ Television advertising for alcoholic beverages is regulated by the Television without Frontiers Directive (Council Directive 89/552/EEC) unfair business-to-consumer commercial practices addresses misleading and aggressive practices, and practices which use coercion as a means of selling (Directive 2005/29/EC).

¹⁵¹ See the Advertising Round Table regarding effective self-regulation at: http://ec.europa.eu/consumers/overview/report_advertising_en.pdf.

¹⁵² see: <https://responsibilitydeal.dh.gov.uk/alcohol-pledges/> [accessed 25-03-14]

¹⁵³ for example, the BMA's BMA director of professional activities, Dr Vivienne Nathanson: '...the responsibility deal concept is fatally flawed by industries' conflict of interest, and the lack of government willingness to put in place the measures which will quite clearly reduce alcohol harm.'

¹⁵⁴ see:

http://www.fph.org.uk/ngos_pull_out_of_government%27s_alcohol_network_of_the_responsibility_deal [accessed 25-03-14]

¹⁵⁵ House of Lords Science and Technology Select Committee 2nd Report of Session 2010–12 *Behaviour Change* Paragraph 5.26

*'self-regulation, the industry's traditional defence against intervention, [is] . . . ineffective. In 2005, a World Health Organisation review of 32 European alcohol strategies had found that the most effective measures included state imposed controls on price and availability. At the other end of the spectrum were 'a series of measures for which it has been difficult to find a direct positive effect on drinking patterns or problems'. These included the public service campaigns, education initiatives, and voluntary self-regulation preferred by the alcohol industry.'*¹⁵⁶

The House of Commons Health Committee concluded:

*'The regulation of alcohol promotion should be completely independent of the alcohol and advertising industries; this would match best practice in other fields such as financial services and professional conduct.'*¹⁵⁷

5.4 Education and prevention

Although education and prevention are routinely suggested as a solution to alcohol problems, in particular in tackling alcohol problems among young people, as the House of Commons Health Committee has pointed out, while 'better education and information are the main planks of the Government's alcohol strategy':

*'Unfortunately, the evidence is that they are not very effective. Moreover, the low level of Government spending on alcohol information and education campaigns, which amounts to £17.6m in 2009/10, makes it even more unlikely they will have much effect. In contrast, the drinks industry is estimated to spend £600-800m per annum on promoting alcohol.'*¹⁵⁸

Concerning education and prevention, the Health Committee pointed out that information and education had a role within a strategy to reduce alcohol-related harm, in that people have a right to accurate information and to know the risks they are taking, and education and prevention may make people more responsive to other policies. Accordingly the Committee recommended there should be more information about the units in drinks (indicating the number of units, e.g. nine units in a bottle of wine) and for labels warning of the health risks involved and the recommended weekly limits, as well as promoting the desirability of having two alcohol-free days a week. The Committee doubted that voluntary agreements were adequate, and recommended a mandatory labelling scheme.¹⁵⁹

Although these appear useful recommendations they have limited effects and labelling should not be seen as a panacea. Such individually-focused health promotion efforts have been criticised as they:

'fail to capture the meanings and the context of drinking. Interventions frequently focus on increasing people's knowledge of a particular behaviour (for example, a recommended number of standard alcohol units) and assume

¹⁵⁶ Gornall 2014 'Under the influence: Scotland's battle over alcohol pricing' *BMJ* 2014;348:g1274

¹⁵⁷ House of Commons Health Committee 2009 *op cit*, Conclusion, paragraph 20

¹⁵⁸ House of Commons Health Committee 2009, Conclusions, paragraph 17

¹⁵⁹ House of Commons Health Committee 2009, Conclusions, paragraph 18

*that people will automatically amend their drinking in line with recommendations. This social cognition approach has been heavily criticised for its lack of success in predicting or changing behaviour... being simplistic and conceptually problematic... portraying individuals as primarily rational beings whose behaviour is devoid of social context or social meaning... and failing to take affective factors into account.'*¹⁶⁰

The authors of this study emphasise that interventions should address the needs of particular groups and communities, and their cultural sensitivities and be based on local needs, which should include addressing gender and race issues. Further research on BAME and LGBT is required to identify appropriate approaches for our diverse communities.

Young people are a particular group whose needs are important to address. Despite the limitations of educational approaches in general and school-based approaches in particular, some approaches in addressing alcohol training with young people show promise. Schools have a role in helping all pupils to understand what alcohol is, its place in society and the problems related to it. All pupils also need to be helped to explore their attitudes towards alcohol and to develop skills for living in a society where alcohol is ubiquitous. Those young people at risk of alcohol misuse need more targeted approaches.

¹⁶⁰ Lyons A *et al* 2014 'Staying 'in the zone' but not passing the 'point of no return': embodiment, gender and drinking in mid-life' *Sociology of Health & Illness* 36, 2 pp. 264–277

6 Pricing alcohol to achieve public health benefits

'Within the international literature on reducing alcohol consumption and the harm related to alcohol, the finding with the strongest evidence base is that consumption of alcohol is highly sensitive to changes in price (or, to be more accurate, affordability)'

John Bailey et al, Bangor and Glyndwr Universities, 2011

'MUP exquisitely targets the most vulnerable groups in our communities and ameliorates the negative impacts of alcohol misuse.'

Dr Nick Sheron, 2014

Most European countries routinely tax alcoholic drinks,¹⁶¹ motor fuels and tobacco more heavily than other goods.¹⁶² One reason for these taxes has been to offset the harms that occur to others through their consumption: for tobacco and alcohol - health harms, for motor fuels - pollution and road traffic accidents. Other reasons cited include raising Government revenues and taxation to discourage people from such behaviours (a 'sin tax'). Taxing also helps to price in the externalities e.g. it helps to pay for the health-care costs of the consumption that are not included in the non-tax price.

As the affordability of alcohol increases more alcohol is consumed and alcohol-related harms increase. The reduction of harm is directly attributable to reduced alcohol consumption. For example, in 2004 Finland's taxes on alcohol were reduced by an average of 33% in response to changes in the EU (specifically, the accession of neighbouring Estonia) which allowed Finns to import cheap alcohol from abroad. Research on the effects of this change in price found that tax reductions of 44% on vodka, 32% on beer and 10% on wine led to an immediate fall of 36%, 13% and 3% respectively in average cost. Alcohol sales overall increased by 7% (with sales of spirits increasing by 17%) and there was a shift from on-sales purchases at public houses to off-sales purchases from supermarkets, for example. Alcohol-related harm increased and the researchers report that the mean rate of alcohol-related mortality increased by 17%.¹⁶³

¹⁶¹ Smith S. Economic issues in alcohol taxation. In: Cnossen S, editor. Theory and Practice of Excise Taxation: Smoking, Drinking, Gambling, Polluting and Driving. Oxford: Oxford University Press; 2005. p. 56-83.

¹⁶² Cnossen, S. Economics and politics of excise taxation. In: Cnossen S, editor. Theory and Practice of Excise Taxation: Smoking, Drinking, Gambling, Polluting and Driving. Oxford: Oxford University Press; 2005. p. 1-19.

¹⁶³ Makela, P. and Osterberg, E. 2009 'Weakening of one more alcohol control pillar: a review of the effects of the alcohol tax cuts in Finland in 2004' *Addiction*, 104 (4), pp 554-563

6.1 The price elasticity of demand

The elasticity of demand describes the relationship between the demand for an item and its price. Typically, as the price of an item increases the demand for that item decreases. There is some variation in this relationship. Some items have relatively inelastic relationships where price change has little effect on demand. Examples include essential goods that people need, such as basic foodstuffs. The demand for most other goods, including alcohol, is more elastic: as price decreases, demand increases. When 112 studies of alcohol tax or price effects were reviewed, which contained 1,003 estimates of the tax/price-consumption relationship, a strong link was found. The authors concluded:

*'The meta-analyses reported here demonstrate the statistically overwhelming evidence of effects of alcohol prices on drinking. Price affects drinking of all types of beverages, and across the population of drinkers from light drinkers to heavy drinkers. We know of no other preventive intervention to reduce drinking that has the numbers of studies and consistency of effects seen in the literature on alcohol taxes and prices.'*¹⁶⁴

As a rule of thumb, a 10% rise in prices cuts alcohol consumption by about 5% (a price elasticity of -0.5). As Gornall¹⁶⁵ points out:

'Taking into account the rise in incomes, between 1980 and 2005 alcohol had become 62% more affordable and... as the price of alcohol has come down, consumption has risen... the report made a compelling case for price intervention. Competition-driven promotions, discounting, below-cost selling, and 'buy one, get one free' offers had all contributed to the problem by squeezing the profit margins on a unit of alcohol. Basic market economics meant that in order for producers and retailers to maintain profits they had to sell more" – and that meant that 'consumers have to drink more.'

Some studies suggest the relationship between price, consumption and harm is less certain for some groups of drinkers.¹⁶⁶ Analysis of longitudinal data from older adults (over 50 years of age) found two groups that (according to self-reported alcohol consumption) responded differently to changes in price. Those that responded in the expected direction tended to suffer multiple disadvantages of health, finance and education, whilst those not disadvantaged were not responsive to changes in affordability.¹⁶⁷ Nevertheless, taken as a whole, there are far more estimates demonstrating a strong relationship between alcohol and price¹⁶⁸ compared to a

¹⁶⁴ Wagenaar A Salois M & Komro K 2009 'Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies' *Addiction*, 104, 179–190 page 187

¹⁶⁵ quoting from a report by Scottish Health Action on Alcohol Problems, an advocacy group set up by the Scottish Academy of Medical Royal Colleges and Faculties in 2014

¹⁶⁶ A review of 19 individual-based studies that examined price responses by heavy-drinking adults and nine studies of prices and mortality due to cirrhosis, found only two studies demonstrating a negative relationship between price and consumption for heavy drinkers and two studies which showed a negative effect on cirrhosis mortality (Nelson JP. Does heavy drinking by adults respond to higher alcohol prices and taxes? A survey and assessment. *Economic Analysis and Policy*. 2013;43(3):265-91).

¹⁶⁷ Ayyagari P, Deb P, Fletcher J, Gallo W, Sindelar J. Understanding heterogeneity in price elasticities in the demand for alcohol for older individuals. *Health economics*. 2013;22(1):89-105.

¹⁶⁸ Wagenaar A Salois M & Komro K 2009 'Effects of beverage alcohol price and tax levels on

handful that do not. As such, there is strong evidence to support the connection between the price of alcohol and demand for alcohol.

6.2 Scope for change

Targeting the price of alcohol in order to improve public health is not new. In 2011 Germany and Sweden introduced legislation to prohibit below-cost selling i.e. selling for a price less than production costs; and Finland and Sweden prohibited volume discount selling of alcohol e.g. two-for-the-price-of-one offers. In addition, five other European countries introduced an increased levy on alco-pops and other 'ready to drink' products. These steps were taken as it was believed these marketing practices and products encouraged excessive drinking and such initiatives would reduce harm to consumers. Finland's prohibition on volume discount selling of alcohol has, since 2008, been associated with an 8% decrease in alcohol consumption and an indirect increase in tax revenues of £400 million. Furthermore, a review of 50 studies that considered the relationship between alcohol tax and alcohol-related disease and injury found that increasing alcohol tax (and therefore the price of alcohol) would reduce the adverse impact on the costs of health care, as well as morbidity rates.¹⁶⁹

Broadly, there are two mechanisms through which alcohol price can be increased: through duty/tax and by setting a minimum unit price. As evidence consistently indicates hazardous drinkers have a preference for cheaper alcohol.¹⁷⁰ An appropriate pricing policy, raising the minimum price of alcohol, therefore targets heavier-drinking consumers. As well as helping heavy drinkers to reduce their alcohol consumption – thus reducing their health harms – society as a whole benefits from the reduced cost of alcohol-related problems.

6.3 Duty

Duty is a form of tax levied on alcohol upon which value added tax (VAT) is also applied. Duty is usually a charge by volume of alcohol; the duty plus VAT represents the 'floor price' of alcohol. Some countries have taken steps to ensure that alcohol is not sold below this 'floor price'. However, the problem is that the 'floor price' is not levied according to the strength of the alcohol, which tends to undermine the health aspect of this measure. For example, in the UK, the duty on cider is £0.20 per 100 litres plus £0.04 VAT even though its alcoholic strength varies between 1.5% alcohol by volume and 7.5% alcohol by volume. This means that a 500ml can of 7.5% (approximately 4 units) would attract duty of £0.20 and therefore VAT of £0.04, yielding a floor price of £0.24 or £0.06 per unit of alcohol. The unit cost of alcohol in spirits with an alcoholic content of 40% is £0.34. If the retail price of alcohol was set so that retailers could not sell below the floor price it is clear that this price would not be sensitive to the alcoholic content of the drink sold, and does not therefore substantially meet the requirements of a policy aimed at reducing alcohol-related

drinking: a meta-analysis of 1003 estimates from 112 studies' *Addiction*, 104, 179–190 page 187

¹⁶⁹ Wagenaar AC, Tobler AL, Komro KA. Effects of alcohol tax and price policies on morbidity and mortality: a systematic review. *American Journal of Public Health*. 2010;100(11):2270-8.

¹⁷⁰ Kerr WC, Greenfield TK. Distribution of alcohol consumption and expenditures and the impact of improved measurement on coverage of alcohol sales in the 2000 National Alcohol Survey. *Alcoholism, clinical and experimental research*. 2007;31(10):1714-22.

Meier PS, Purshouse R, Brennan A. Policy options for alcohol price regulation: the importance of modelling population heterogeneity. *Addiction*. 2010;105(3):383-93.

harm.¹⁷¹ Consumers who wish to drink heavily could substitute more expensive forms of alcohol with cheaper beverages that have a higher alcohol content.¹⁷² For men it would be possible to exceed the recommended weekly limit of 21 units for as little as £1.26 and for women the recommended weekly limit of 14 units can be exceeded with an expenditure of £0.84. Nevertheless, the UK Government now favours banning below-floor price sales of alcohol.

An alternative mechanism to increase the price of alcohol is to realign alcohol duty with alcohol content. As noted above, the duty on cider is £0.20 per 100 litres, irrespective of whether the cider is 1.5% or 7.5% alcohol by volume. Thus the same floor price, if enforced, would mean both 1.5% and 7.5% cider could be sold for the same price if the floor price were enacted. To make a clear link between the alcohol content, irrespective of beverage type, and the price paid, duty could be aligned with alcohol content not product type.

An advantage of setting prices in this way would be that the price of currently-cheaper drinks would increase, which would not only act as a disincentive to excess alcohol consumption (because of the elasticity of demand), but also increase revenue.¹⁷³ For example, arranging duty of £0.40 per unit alcohol would set baseline prices for 1 litre Vodka at £19.20, 500ml cider at £1.82 and 750ml wine at £3.84.

At the time of this report being published Wales did not have powers to raise tax nor alter the duty payable on alcoholic drinks. Nevertheless, if the option to raise the price of alcohol was both a disincentive for hazardous consumption and to raise revenue then this would provide financial options for funding additional third sector involvement in communities where health inequality is greatest.

6.4 Minimum unit pricing

An alternative to realigning duty is to set the minimum retail price of an alcohol beverage so that it matches alcohol content, otherwise known as minimum unit pricing (MUP). For example, a £0.50 minimum unit price would mean that a 500ml can of cider with 3.8 units could not be sold for less than £1.90, a litre of spirits with 40 units could not be sold for less than £20 and 750ml of wine with eight units could not be sold for less than £4.00.

6.5 Studies on minimum unit pricing

MUP aims to reduce alcohol consumption to improve public health. Whereas duty can be used to raise revenue and discourage misuse, MUP is not designed to increase revenue (although if there is a net increase in overall expenditure on alcohol there will be an increase in tax revenue). A consultation document by the UK Government on MUP claimed MUP:

¹⁷¹ Griffith R, Leicester A, O'Connell M. Price-based measures to reduce alcohol consumption. London: Institute for Fiscal Studies, 2013.

¹⁷² Gruenewald PJ, Ponicki WR, Holder HD, Romelsjo A. Alcohol prices, beverage quality, and the demand for alcohol: quality substitutions and price elasticities. *Alcoholism: Clinical and Experimental Research*. 2006;30(1):96-105.

Treno AJ, Nephew TM, Ponicki WR, Gruenewald PJ. Alcohol beverage price spectra: opportunities for substitution. *Alcoholism, clinical and experimental research*. 1993;17(3):675-80.

¹⁷³ Griffith R, Leicester A, O'Connell M. Price-based measures to reduce alcohol consumption. London: Institute for Fiscal Studies, 2013.

*'could lead to an estimated reduction in consumption across all product types of 3.3%, a reduction in crime of 5,240 per year, a reduction in 24,600 alcohol-related hospital admissions and 714 fewer deaths per year after ten years.'*¹⁷⁴

As illustrations of the 'power of the price', studies on the effect of price on consumption of alcohol from Alaska, Sweden and Saskatchewan are set out below. These are followed by a description of an economic modelling study that assessed the likely impacts of MUP in the UK.

Alaska

Alcohol harm was shown to be related to alcohol price in Alaska in a time-series analysis of alcohol-related mortality between 1976 and 2004. Increases in alcohol tax rates were associated with immediate and sustained reductions in alcohol-related mortality in Alaska. Reductions in mortality occurred after two tax increases almost 20 years apart.¹⁷⁵

Sweden

Research using data from Sweden suggests that, in response to alcohol price increases, consumers reduced their total consumption but also altered their brand choices. This meant that although there were significant reductions in sales in response to price increases, these effects were attenuated by substitution of different products. Consumers of cheap alcohol were found to be more price-sensitive than others as they were unable to substitute downwards to even-cheaper drinks when prices went up and therefore their level of alcohol consumption reduced the most.¹⁷⁶

Saskatchewan

In April 2010 Saskatchewan substantially increased the minimum price of alcohol, with higher alcohol content beverages receiving a larger increase. The effect of this increase was assessed using sales data (both off-sales and on-sales). A decrease in alcohol sales followed the increase in minimum pricing, with a greater reduction in off-site sales compared to on-site sales.¹⁷⁷ An evaluation of this policy reported that a 10% increase in minimum price reduced consumption of alcoholic beverages by 8.43%, with larger effects on 'off sales' than 'on sales': the consumption of high strength beer and wine declined the most.

Scotland

Although the Scotland Government passed the Alcohol (Minimum Pricing) (Scotland) Act 2012 in June 2012, to introduce a minimum price of 50p per unit, the implementation of the Act has been delayed by legal challenge by the Scotch Whisky Association. Although the appeal was dismissed in May 2013 at an Outer House hearing, upon a further appeal Judges at the Court of Sessions ruled that the case

¹⁷⁴ Woodhouse and Ward, Alcohol : Minimum pricing, Standard note SN/HA/5021, 11 February 2014.

¹⁷⁵ Effects of Alcohol Tax Increases on Wagenaar A Maldonado-Molina, M & Wagenaar B 2009 'Alcohol-Related Disease Mortality in Alaska: Time-Series Analyses From 1976 to 2004' *Am J Public Health*. 2009;99: 1464-1470

¹⁷⁶ Gruenewald P Ponicki W Holder H and Romelsjo A 2006 'Alcohol Prices, Beverage Quality, and the Demand for Alcohol: Quality Substitutions and Price Elasticities' *Alcoholism: Clinical and Experimental Research* 30,1 pp 96–105 Quoted in Stockwell et al 2012

¹⁷⁷ Stockwell T, Zhao J, Giesbrecht N, Macdonald S, Thomas G, Wettlaufer A. The raising of minimum alcohol prices in Saskatchewan, Canada: impacts on consumption and implications for public health. *American Journal of Public Health*. 2012;102(12):103-10.

against the Scottish Government's policy should be referred to the European Court of Justice.

6.6 Economic or simulation modelling

Researchers from Sheffield University¹⁷⁸ assessed the effect of a £0.45 minimum unit price across varying income and socio-economic groups through economic modelling¹⁷⁹ which also took into account consumer purchasing and consumption preferences by type, volume, prices and on/off-trade preference. Outcomes considered included volume of alcohol consumed in the population, spending, rates of alcohol-related health harm and opportunity costs associated with harms for a 10-year period following MUP implementation. It was calculated that:

- Consumption would be reduced by 1.6% (by 11.7 units per drinker per year);
- Moderate drinkers would be least affected (with a reduction of 3.8 units per drinker per year for those on the lowest income compared with a reduction of 0.8 units increase for the highest income);
- Harmful drinkers would show the greatest change in behaviour with a reduction of 3.7% (138.2 units per drinker per year);
- When modelled by income, the most harmful drinkers in the lowest income group (where harm is most prevalent) showed an expected decrease in consumption of 7.6% (299.8 units per drinker per year) compared to the most harmful drinkers in the highest income group who would be expected to show a decrease of 1.0% (34.3 units per person per year).

These changes in consumption would be expected to lead to significant improvements in wholly attributable alcohol-related morbidity and mortality levels. The Sheffield modelling exercise used UK data to build their estimates, results of which are broadly consistent with empirical studies and meta-analyses from around the world.

This suggests that a minimum unit price of £0.45 would have an impact on the consumption of hazardous and harmful drinkers, resulting in a significant reduction in health harms and related costs.

¹⁷⁸ Holmes J, Meng Y, Meier PS, Brennan A, Angus C, Campbell-Burton A, et al. Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *Lancet*. 2014, in press.

¹⁷⁹ Meng Y, Brennan A, Holmes J, Hill-McManus D, Angus C, Purshouse R, et al. Modelled income group-specific impacts of alcohol minimum unit pricing in England 2014/15: Policy appraisals using new developments to the Sheffield Alcohol Policy Model (v2.5). Sheffield: The University of Sheffield, 2013.

6.7 Criticisms of MUP

There have been some high-profile criticisms of MUP. A report from the Adam Smith Institute¹⁸⁰ stated that predictions based on the Sheffield alcohol policy model were ‘entirely speculative and do not deserve the exalted status they have been afforded in the policy debate’. The Centre for Economics and Business Research criticised minimum pricing as ‘a poor piece of policy that will do little to address the damage caused by alcohol misuse and much to exacerbate the financial challenge facing moderate drinkers on lower incomes’.¹⁸¹ The Sheffield team addressed the points in the Adam Smith Institute critique in a paper¹⁸² in which they note that while their findings have been published in peer-reviewed journals, the criticisms have not been subject to such scrutiny and conclude:

‘...we restate that our purpose in undertaking the modelling work has been to generate for policy makers the best understanding and estimates of the potential effects of [minimum unit pricing] given the scientific evidence available. The judgment as to whether the wider evidence base and the modelling is reliable enough to enable policy makers to take the next step and implement [minimum unit pricing] falls within a complex public process of debate involving academic peer review, political judgment and scrutiny, and commentary and consultation with the public and stakeholders holding a range of worldviews and vested interests.’¹⁸³

Generally the retail industry is opposed to MUP. The British Retail Consortium stated, ‘we do not support untargeted measures that will simply penalise the vast majority of the population that drink responsibly, such as minimum pricing’.¹⁸⁴ The British Beer & Pub Association represents members who account for 96% of beer brewed in the UK and who own 50% of Britain’s 49,500 pubs. Although it is supportive of a ban on below floor price sales of alcohol and a tax system and policy measures that encourage consumption of drinks of lower alcohol concentration, the British Retail Consortium is of the view that MUP is a “blunt tool”¹⁸⁵; in contradiction to the research evidence outlined in this report and of the views of the British Beer & Pub Association membership. Alcohol Concern Wales presented evidence to APoSM indicating that 77% of publicans in Wales back a £0.50 MUP.¹⁸⁶

Despite the retailers’ views, it is interesting to note that the Sheffield modelling demonstrates financial gain to the off-licensed trade and estimates that retailers would gain £200 million each year (mainly from not discounting) while the on-licence trade would lose money (but a smaller estimated £62 million).¹⁸⁷ It also found there

¹⁸⁰ C. Duffy J Snowdon C 2012 ‘The Minimal Evidence for Minimum Pricing The fatal flaws in the Sheffield Alcohol Policy Model’ Adam Smith Institute

¹⁸¹ As Gornall (2014) points out: ‘This time the industry’s involvement was clear. As the report stated, the work had been commissioned by SABMiller [a brewer].’

¹⁸² Brennan *et al* [undated] ‘A public response to the Adam Smith Institute’s critique of the Sheffield Alcohol Policy Model’ (from <https://www.shef.ac.uk/scharr/sections/ph/research/alpol/publications> [accessed 23-02-14])

¹⁸³ Brennan *et al* *ibid* op cit, p7

¹⁸⁴ quoted to APoSM by the Alcohol Concern Wales presentation.

¹⁸⁵ BRC ‘alcohol bill report complex and inconclusive, press release 27 May 2010

¹⁸⁶ Alcohol Concern Wales presentation;

¹⁸⁷ MUP at 45p in Britain would benefit the industry by £700 million (Leicester A & Griffith R 2010 ‘The impact of a introducing a minimum price on alcohol in Britain’ Institute for Fiscal Studies p1)

would be financial gains for the Government in duty and VAT revenue of about £39 million. While MUP is not designed to increase tax revenue there might be some increase.

Most of the alcohol industry has opposed MUP and has lobbied to prevent it, as detailed in an article in the *British Medical Journal*.¹⁸⁸ The Wine and Spirit Trade Association launched a campaign, 'Why should responsible drinkers pay more?' which claimed to show 'major public opposition to government's plans to hike up alcohol prices'.¹⁸⁹ However, the Health Alliance reported on a survey¹⁹⁰ that explained the principle of MUP (80% of respondents said they had already heard of the idea) and found that, while less than half of the respondents (but more than two-fifths) supported each of several different MUP scenarios, the supporters far outweighed those objecting.¹⁹¹ The Wine and Spirit Trade Association have also suggested that price inelasticities of heavy drinkers were less than for other groups,¹⁹² an assertion not supported by the bulk of available evidence.

There are concerns expressed that MUP will come with a non-financial price for some. For example the enjoyment of ordinary drinkers might be reduced by increased price. However, it is likely that for many consumers lower levels of alcohol in beverages will not affect enjoyment (for beer at least, consumers are generally unable to distinguish between beverages of 3.7% and 5.6% alcohol-by-volume and strength is unrelated to enjoyment and subjective intoxication¹⁹³), or they may find satisfying leisure activities on which to spend their money that do not involve the use of alcohol. Although concerns have been expressed that the alcohol industry and business connected with it (especially retailers) would be financial losers, it is also likely retailers would gain financially from MUP because of the limits it would put on discounted sales. Overall volume of alcohol sold might decrease but profits would be maintained. For example if consumers 'trade up' to more expensive drinks, or drink beverages containing lower levels of alcohol on which profit margins could be higher (because of lower tax levels). In addition the on-licence trade could benefit from MUP because of the reduction in competition from cheaper off-licenced trade-alcohol.

Nevertheless, and despite these possible alternative scenarios, the industry would prefer to see other alternative measures introduced or strengthened, such as:

*'sensible drinking guidelines'; 'responsible drinking messages'; 'industry-wide agreements'; 'voluntary codes'; and 'best-practice agreements.'*¹⁹⁴

¹⁸⁸ Gornall J 2014 'Under the influence: Scotland's battle over alcohol pricing' *BMJ* 348:g1274

¹⁸⁹ Quoted in Gornall 2014

¹⁹⁰ An on-line survey by YouGov in June 2012 using a sample of 2,075 adults recruited from a UK panel of over 350,000 individuals.

¹⁹¹ there were large proportions of respondents whose views were 'neutral': see page 41 of University of Health Alliance 2013 'Health First: An evidence-based alcohol strategy for the UK' University of Stirling

¹⁹² in a letter to *The Economist* magazine, published 17.01.14

¹⁹³ Geller ES, Kalsher MJ, Clarke SW. Beer versus mixed-drink consumption at fraternity parties: a time and place for low-alcohol alternatives. *Journal of studies on alcohol*. 1991;52(3):197-204.

Segal DS, Stockwell T. Low alcohol alternatives: a promising strategy for reducing alcohol-related harm. *International Journal of Drug Policy*. 2009;20:183-7.

¹⁹⁴ quoted in Gornall J 2014 'Under the influence' *BMJ* 2014;348:f7646

It has been found that self-regulation, the industry's traditional defence against intervention, is ineffective. In 2005 a WHO review of 32 European alcohol strategies found that the most effective measures included state-imposed controls on price and availability. At the other end of the spectrum were a series of measures for which it has been difficult to find a direct positive effect on drinking patterns or problems. These included the public service campaigns, education initiatives and voluntary self-regulation, all of which are preferred by the alcohol industry.¹⁹⁵

While MUP (and the evidence for it) has been criticised, nevertheless the evidence base is extensive, and the modelling of the effects of MUP in a UK context is well-founded and robust. The effects of MUP would be different for different subgroups of the population: therefore MUP enables those drinking alcohol more harmfully or hazardously to be targeted, with smaller effects on moderate drinkers, particularly those with low incomes. Taking into account all the circumstances and the evidence presented to the panel, MUP is an effective mechanism through which alcohol-related harm can be addressed. As stated by Dr Nick Sheron based on his extensive research in this area, '*MUP exquisitely targets the most vulnerable groups in our communities and ameliorates the negative impacts of alcohol misuse.*'

In summary, upon reviewing the MUP literature and taking into account the expert evidence presented to APoSM, it is recommended that minimum unit pricing should be introduced to address alcohol-related harm in the vulnerable groups most affected by hazardous and harmful levels of drinking.

Recommendation 1 - The Welsh Government should introduce minimum unit pricing to address alcohol-related harm in the vulnerable groups most affected by hazardous and harmful levels of drinking.

¹⁹⁵ (Gornall 2014 'Under the influence: Scotland's battle over alcohol pricing' *BMJ*)

7. Potential response to minimum unit pricing

“bottles with corks” as opposed to large plastic containers of cheap “plonk”... This is good news for the wine industry and suggests that profitability and improved health can go hand in hand by moving towards quality and away from quantity.’

Jewell & Sheron, Trends in European liver death rates’ 2010

Alcohol policies focused on alcohol affordability tend to assume that drinkers behave rationally; that they weigh all the likely costs and benefits associated with alcohol consumption – and that all drinkers respond in the same way to price changes. This may not be the case for heavy drinkers or those dependent upon alcohol, whose dependence on alcohol may dampen their response to price signals. Heavy drinkers may continue to engage in heavy episodic alcohol use, albeit less frequently, as affordability decreases.¹⁹⁶ Some consumers may substitute other psycho-active products for alcohol. Evidence of the extent of such behaviour is scarce, although it suggests only a very small proportion of problematic drinkers, who already have other substance misuse issues, would respond in this way.

Consumers who are able to ‘trade up’ to more expensive drinks may drink smaller quantities of alcohol. The current trend in France with its overall decline in alcohol consumption, has been a decline in the consumption of the cheaper wines but an increase in consumption of ‘quality’ wines: thus, spending on alcohol remains similar, but the amount consumed has decreased. As Jewell and Sheron point out:¹⁹⁷

‘Total alcohol consumption in France has fallen by 12 litres per capita since the 1950s... the middle classes [were]... the pioneers of change in France, and... were already drinking less than other groups, preferring to opt for high-quality options instead – ‘bottles with corks’ as opposed to large plastic containers of cheap ‘plonk’... This is good news for the wine industry and suggests that profitability and improved health can go hand in hand by moving towards quality and away from quantity – a lesson that UK supermarkets would do well to learn from their French and Italian counterparts.’¹⁹⁸

Consumers may also respond to increased alcohol prices by importing alcoholic drinks from countries where the cost is lower, such as England or EU countries, or by making their own alcohol. The first response is a possibility for border areas were Wales to have minimum unit price while England adopted a low-cost sale ban, but might be less likely for low-income heavy drinkers who may not have the resources to travel as easily. Individual production is deemed unlikely for the most vulnerable

¹⁹⁶ Seaman P, Edgar F, Ikegwonu T. The role of alcohol price in young adult drinking cultures in Scotland. *Drugs*. 2013;20(4):278-85.

¹⁹⁷ Jewell J and Sheron N 2010 ‘Trends in European liver death rates: implications for alcohol policy’ *Clinical Medicine*, 10, 3: 259–63.

¹⁹⁸ Jewell J and Sheron N 2010 ‘Trends in European liver death rates: implications for alcohol policy’ *Clinical Medicine*, 10, 3: 259–63.

groups of drinkers, not least because of the time required for the fermentation process and the cost of the necessary equipment.

The APoSM recommendation for data and further research, as well as the Welsh modelling currently being undertaken by the Welsh Government, would further illuminate the issue of MUP, in particular its impact on low-income groups, young persons, LGBT communities and the relationship with race and gender.

8. MUP Review Committee

‘The MUP Review Committee could take evidence from the alcohol industry, as well as consumer and health care groups, so that the competing commercial and health interests would be properly considered and weighed.’

Minimum unit pricing: a review of its potential in a Welsh context,
APoSM report, July 2014

Following the referral of the Scottish Parliament’s MUP Act to the European Court of Justice, the Welsh Government may be at risk of litigation from the manufacturers and retailers of alcohol with regards to the freedom of movement of trade and services. An example given in the notice issued by the European Court of Justice refers to a 40% abv. bottle of French brandy (which takes 6-12 months to mature) compared to Scotch whisky (which takes 3 years to mature) whereby if a minimum unit price of 50p were imposed, this would adversely impact on 82% of French brandy which is sold at a lower price, thus MUP arguably would have a restrictive effect on trade and would be an adverse barrier to the UK market. However, a policy of minimum unit pricing could be justified by the Welsh Government if in the public interest, if necessary to achieve a legitimate objective (such as improving public health and attaining social benefits) and the steps taken were proportionate to that aim. The introduction of a MUP policy would need to be part of an overall and comprehensive Welsh substance misuse strategy, in light of the EU strategy to facilitate Member States to reduce alcohol-related harm.¹⁹⁹

It would be advisable, especially considering the concerns raised by the alcohol industry in their legal challenges, to establish an independent ‘arms-length’ MUP review committee to consult on and review both the policy itself and the proposed levels of unit pricing. The MUP Review Committee could take evidence from the alcohol industry, as well as consumer and health care groups, so that the competing commercial and health interests would be properly considered and weighed. Such a formal process and mechanism would ensure timely annual reviews of both policy and unit price, also taking into account the method of calculation applied to ensure a sensitive pricing barometer is in place e.g. in line with inflation or costs of living indices. In addition the MUP Review Committee would review the efficacy of this intervention; whether it properly targets vulnerable at-risk groups, and measure its intended outcome.

Recommendation 2 - The Welsh Government should establish an independent MUP Review Committee.

¹⁹⁹ See COM(2006)625. However an assessment of this particular litigation risk is outside the remit of this report and independent specialist legal advice on this issue should be sought.

9. Data and Research

‘European Community Health Indicators, the Commission services have identified the need to develop a standardised definition for data on alcohol use and alcohol-related harm; to initiate research to estimate the cost and benefits of policy options . . . Furthermore, there is a need for assessing the differentiation of drinking patterns by country, age and gender.’

COM(2006)625

In the pursuit of its health initiatives, the Welsh Government collates a range of data and initiates research. Such work would be needed to inform and support the proposed MUP Review Committee. The work of the MUP Review Committee will require data to be compiled regarding the health outcomes of MUP, as well as relevant economic data and pricing information, to support it in its task. This would, *inter alia*, require liaison with the statutory agencies regarding the data needed both prior to the introduction of this initiative and during its implementation so that accurate and policy-relevant information could be obtained on its impact. The standardisation of definitions of data should also take into account European measures currently used and the Welsh Government should consider liaison with European and global organisations to progress this initiative.

‘European Community Health Indicators, the Commission services have identified the need to develop a standardised definition for data on alcohol use and alcohol-related harm; to initiate research to estimate the cost and benefits of policy options; to carry out regular and comparative European surveys; and to fill research gaps on alcohol-related health and social harm, on the causes of harmful and hazardous alcohol consumption, and on its role in widening the health gap between socio-economic groups. Furthermore, there is a need for assessing the differentiation of drinking patterns by country, age and gender.’²⁰⁰

There would also be a need for further Welsh focused research to evaluate the effectiveness of this proposed action and intervention. This would inform the Welsh modeling simulation research currently being undertaken. Again this research is required to support and inform the work of the MUP Review Committee

Recommendation 3 - The work of the MUP Review Committee should be supported by the compilation of relevant data.

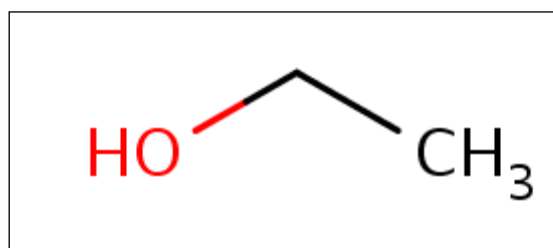
Recommendation 4 - On-going research regarding the impact and efficacy of the MUP policy is required.

²⁰⁰ Ibid op cit

The Welsh Government is currently consulting on the introduction and implementation of MUP referred to in the Public Health White Paper. Responses to the consultation, as well as the Wales level modeling work which the Welsh Government has commissioned from the University of Sheffield, will inform the Minister's decision and future Welsh Government action. The consultation analysis is ongoing at date of the writing of this report and the outcome of the modelling work will not be available until later in 2014. In the event of a decision to introduce MUP in Wales, this work would support the proposed MUP Review Committee in its task. It will also address issues of implementation and enforcement, utilising existing Welsh structures.

Annexes

Annex A – The Molecular Structure of alcohol²⁰¹



Alcohol is the commonly used name for ethanol (ethyl alcohol). There are several other alcohols (e.g. methanol or isopropyl alcohol). All forms of alcohol are toxic with ethyl alcohol being the least toxic.

Alcohol is rapidly absorbed after oral ingestion, predominantly in the duodenum and jejunum of the small intestine and peak blood alcohol concentrations occur at around 45 minutes in the fasting state and at around 90 minutes when the alcohol is ingested with food. Once absorbed it is rapidly distributed (within minutes) to organs and tissues such as the brain, liver and lungs. It is metabolised (broken-down) by the liver.

²⁰¹ Drugbank 2014, <http://www.drugbank.ca/drugs/DB00898> (accessed 09/06/2014)

Annex B - List of participants

APoSM held an expert evidence-gathering day on 14 February 2014 when the following persons and organisations attended:

Donald Henderson Iain McCalister	Public Health Division, the Scottish Government
Jim (Gemma) Henton	Substance Misuse Worker, Kaleidoscope (Representing the Welsh Council for Voluntary Action Substance Misuse Network)
John Holmes	Research Fellow, University of Sheffield
Andrew Misell	Director, Alcohol Concern Cymru
Dr Nick Sheron	Head of Clinical Hepatology, University of Southampton (Representing the Alcohol Health Alliance and the British Society of Gastroenterology).
Dr Vas Sivarajasingam	Reader/Consultant in Oral Surgery, Violence and Society Research Group, Cardiff University.

In addition the following persons/organisations submitted documents, information or written representations, or otherwise contributed to this report:

Aarif Abraham, Stagiaire, European Court of Human Rights, Strasbourg, France
Alcohol Concern Cymru
Dr Scott Blinder, Director, the Migration Observatory, University of Oxford
British Beer and Pub Association
British Society of Gastroenterology
David Fone, Professor of Health Sciences Research, Institute of Primary Care and Public Health School of Medicine, Cardiff University
Professor Elizabeth Gilchrist, Professor of Forensic Psychology, Glasgow Caledonian University
Professor Harry Sumnall, Centre for Public Health, Liverpool John Moores University
Wales Council for Voluntary Action Substance Misuse Network
Wine and Spirit Trade Association

Although the Portman Group and the Adam Smith Institute were invited to attend and/or submit representations these invitations were declined.

Annex C - List of APoSM membership and officials

Dr Geoff Page, Josie Smith and Eryl Drew in particular provided valuable input to the text and statistics of this report.

Name	Title
Rosemary Allgeier	Principal Pharmacist in Public Health, Public Health Wales
Nicola Davies	Acting Director of Operations, National Probation Trust
Eryl Drew	National Offender Management Service, Directorate of Commissioning and Commercial, Wales Office.
Ifor Glyn	Director, Sands Cymru
Richard Ives	Consultant, educari
Kyrie James	Member of the International Association of Women Judges Associate-Rapporteur for the UK Rapporteur's Working Party on Vulnerable Persons of the International Association of Refugee Law Judges Member of the Council for Immigration Judges
Rhiannon Kirk	Detective Superintendent, Operation Tarian, South Wales Police
Professor Simon Moore	Violence & Society Research Group School of Dentistry, College of Biomedical and Life Sciences, Cardiff
Cathy Nowell	Social Worker, Cardiff Social Services
Dr Geoff Page	Criminologist, University of York
Professor Andrew Parrot	Department of Psychology, University of Swansea
Professor Philip Routledge, OBE	Head of Department of Pharmacology, Therapeutics and Toxicology, Institute of Molecular and Experimental Medicine, School of Medicine, Cardiff University
Josie Smith	Research Scientist, Public Health Wales

Officials

Tracey Breheny, Deputy Director of Substance Misuse, Government & Corporate Business

Gareth Hewitt, Head of Substance Misuse Policy
Alison Thomas, Substance Misuse Policy Manager.
Julia Huish, Substance Misuse Policy Officer
Daryl Kent, Substance Misuse Finance Team Support