Alcohol (Minimum Pricing) (Scotland) Bill

Chest Heart & Stroke Scotland

Chest Heart & Stroke Scotland (CHSS) aims to improve the quality of life for people in Scotland affected by chest, heart and stroke illness through medical research, influencing public policy, advice and information, and support in the community. We operate in every parliamentary constituency, NHS Board and Local Authority area in Scotland, and provide services directly to more than 15,000 people.

CHSS recognises the Scottish Government’s commitment to reducing the damage done by alcohol misuse in Scotland, and welcomes the opportunity to comment on the provisions of the Alcohol (Minimum Pricing) (Scotland) Bill. The Charity’s response covers three issues:

- The scale of the problem of alcohol misuse in Scotland
- The impact of alcohol on cardiovascular disease
- The potential impact of minimum pricing

Summary of CHSS response

1. In order to respond to the Bill we have focussed on the impact of alcohol on cardiovascular health, which is much more complex than, for example, that of tobacco, with the undoubted harmful effects of heavy drinking partially offset by the apparent protective effect of mild-to-moderate alcohol consumption
2. Scotland has an undoubted problem of alcohol misuse, particularly in more deprived communities and amongst younger people
3. The health damage caused by alcohol is related primarily not to cardiovascular disease (CVD), and not at all to respiratory conditions, but more to mental health, liver disease and some forms of cancer, and to the social and economic consequences of alcohol misuse
4. In terms of CVD, there are differential effects on different conditions and with different patterns of drinking, with ‘binge’ drinking particularly problematic
5. Alcohol tends to have a more detrimental impact on the types of conditions which particularly affect younger people (eg haemorrhagic stroke), whilst the apparent protective effects are concentrated on those conditions affecting mainly older people (eg coronary heart disease)
6. The introduction of minimum pricing is likely to have a significant impact on excessive alcohol use, and the consequent health and social damage caused
7. The impact is likely to be greatest on sales of the cheapest forms of alcohol, and the benefit concentrated most on the heaviest, most problematic drinkers
8. CHSS therefore supports the introduction of minimum pricing, but considers it vital that the Scottish Government introduce a robust,
independent evaluation to measure the impact of the legislation once enacted

The scale of the problem of alcohol misuse in Scotland

Scotland has a serious problem of alcohol misuse. 15 of the 20 localities in the UK with the worst alcohol-related mortality are in Scotland\(^1\). Particularly in the west of Scotland, we have rates of alcohol-related liver disease and alcohol-fuelled violent crime which are amongst the highest in Europe.

The Scottish Health Survey (2009)\(^2\) revealed that 27% of men and 19% of women drink more than the recommended limits (21 and 14 units per week respectively). However, rates of excess drinking finally appear to be reducing – the comparable figures for the 2003 survey were 34% for men and 23% for women. This is also reflected in the mean weekly consumption of alcohol, which declined between 2003 and 2009 from 20.3 to 17.5 units for men, and from 9.1 to 7.8 units for women.

Unfortunately, this is still higher than the comparable figure for England & Wales\(^3\), and Scottish men, and young people of both sexes, have high rates of binge drinking, which has particularly detrimental effects on cardiovascular health. 26% of men who drink consume more than 8 units on at least one night per week.

A significant number of Scots, particularly men, are defined as hazardous or harmful drinkers. More than 1 in 5 Scottish males (22%) drink between 21 and 50 units per week (defined as ‘hazardous’) and another 7% drink more than 50 units (‘harmful’). 17% and 3% respectively of Scottish women come into these categories. Problem drinking is also disproportionally concentrated amongst people in the lowest income groups, adding to the impact on health inequalities.

Across the developed world, alcohol is the third highest risk factor for ill health generally (after tobacco and hypertension). Within Scotland, an estimated 42,000 hospital discharges and 100,000 GP visits per year are alcohol-related, together with 11% of all Accident and Emergency admissions\(^4\). Alcohol contributes to 1 in 20 deaths in Scotland – double the comparable rate in England and Wales.

Impact of alcohol on cardiovascular disease

The 2007 SIGN Guideline 97 \(\text{\textit{(Risk estimation and the prevention of cardiovascular disease)}}\)\(^5\) provides a comprehensive summary of the evidence linking alcohol usage to heart disease and stroke. The main points to emerge are:

- Systematic reviews of the evidence indicate a ‘J’ shaped relationship between alcohol consumption and both morbidity and mortality from cardiovascular disease; as a corollary, light-to-moderate alcohol consumption may have a protective effect
The maximum benefit for men appears to correspond to approximately 3 units per day and for women approximately one unit, although there is evidence of some protective effect at higher levels. The benefit is small but statistically significant, and is supported by evidence of improved lipid profiles with regular light-to-moderate alcohol consumption. There is no evidence of any differential impact associated with consumption of different types of alcohol. There is however a clear detrimental impact of ‘binge’ drinking, which is associated with poorer lipid profiles, higher systolic blood pressure, and greater risk of coronary heart disease and stroke.

The Guideline also points out that its review of evidence is restricted to the impact of alcohol consumption on cardiovascular disease, and notes that excess consumption also has detrimental effects on mental health, liver disease and some forms of cancer, as well as serious social and economic consequences.

More recent reviews of evidence tend to confirm the position as reported in SIGN 97. Patra et al (2010)(6), in a systematic review and meta-analysis of alcohol consumption and morbidity and mortality from stroke, conclude that:

- Heavy alcoholic consumption increases the relative risk of all types of stroke, particularly the risk of mortality.
- Light-to-moderate drinking may be protective against ischaemic stroke.
- There appears to be a straightforward linear relationship between alcohol consumption and haemorrhagic stroke.
- The relative risks are greater for women than for men.

Rehm and Roerecke (2011)(7) explore some of the apparent anomalies in the evidence base – for example, the contradictory impacts of reduced alcohol consumption in Russia, associated with a reduction in CHD mortality(8), contrasting with a similar reduction in Finland associated with increased consumption(9). Their conclusions emphasise the significance of patterns of drinking. Regular low-to-medium volume drinking appears to have the most beneficial effect, whilst irregular heavy drinking confers no benefit in terms of risk reduction for coronary heart disease, and, as noted above, increases the risk of stroke.

Their study also indicates differential effects on different forms of cardiovascular disease. The apparent beneficial impact of mild-to-moderate alcohol consumption is on risks of coronary heart disease and ischaemic stroke. On the other hand, increasing alcohol consumption increases the risk of haemorrhagic stroke, hypertension, atrial fibrillation and cardiomyopathy – each of which is an important component of cardiovascular disease, especially in younger and middle-aged people.

Finally, there appears to be no firm epidemiological evidence linking alcohol consumption to risks of chronic obstructive pulmonary disease (COPD). The largest such study identified increased risk of exacerbations of COPD with
alcohol consumption, but all of the excess risk can be explained by the impact of increased tobacco use in association with consumption of alcohol\textsuperscript{(10)}.

The potential impact of minimum pricing

The main evidence base for the Scottish Government’s proposals was work undertaken by the University of Sheffield, first for the UK Department of Health and subsequently adapted for the Scottish Government\textsuperscript{(11)}.

The model demonstrates, as would be expected, that the higher the minimum price the greater the impact on consumption, and that the combination of a reasonably high minimum price (over 40p per unit) and a total ban on cut-price promotions generates the most beneficial effect. A minimum price of 45p combined with a promotional ban is projected to reduce consumption by 7.0%. Alcohol-related hospital admissions and deaths are estimated to reduce to a greater degree as the minimum price increases.

The model also estimates the financial impact of the predicted reductions in alcohol consumption. Savings in health and social care costs due to reduced illness and hospital admissions are estimated at £60 million for a 40p minimum price, rising to £160 million for a 50p threshold. In terms of health spending, the savings are accounted for mainly in the costs of treating heavy drinkers – for example, 62% of the reductions in hospital admissions arise from the 7% classed as ‘harmful’ drinkers (ie drinking over 50 units per week).

It must be emphasised that these conclusions are based on an academic model rather than on real-world evidence, since there is little experience of the actual impact of minimum alcohol pricing. Evidence from Canada would support the contention that the impact of minimum pricing is concentrated on the most harmful forms of alcohol misuse\textsuperscript{(12)}, and very early evidence from the introduction of the ban on cut-price promotions in Scotland is also encouraging\textsuperscript{(13)}.

However, CHSS would urge strongly that the Scottish Government introduces a robust, independent evaluation of the impact of the introduction of minimum pricing, commencing with a baseline survey to be undertaken before implementation. This is vital not only to judge the effectiveness of the policy within Scotland, but also as a guide to the other jurisdictions which are monitoring the Scottish experience with interest. As with the 2005 legislation on tobacco control, the Scottish Government has an opportunity to lead and influence policy in the remainder of the UK and elsewhere on this issue.

Chest Heart & Stroke Scotland
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