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Model-based appraisal of minimum unit pricing for alcohol in Wales

Summary Report

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(Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government)

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EXECUTIVE SUMMARY

MAIN CONCLUSIONS

Estimates from the Welsh adaptation of the Sheffield Alcohol Policy Model (version 3) (SAPM3) suggest:

1. Minimum Unit Pricing (MUP) policies would be effective in reducing alcohol consumption, alcohol related harms (including alcohol-related deaths, hospitalisations, crimes and workplace absences) and the costs associated with those harms.
2. A ban on below-cost selling (implemented as a ban on selling alcohol for below the cost of duty plus the VAT payable on that duty) would have a negligible impact on alcohol consumption or related harms.
3. MUP policies would only have a small impact on moderate drinkers. Somewhat larger impacts would be experienced by increasing risk drinkers, with the most substantial effects being experienced by high risk drinkers.
4. MUP policies would have a larger impact on those in poverty, particularly high risk drinkers, than those not in poverty. However; those in poverty also experience larger relative gains in health and the high risk drinkers are estimated to marginally reduce their spending due to their reduced drinking under many policies.

RESEARCH QUESTIONS

1. What is the estimated impact of MUP policies ranging from 35p-70p per unit if the policies were to be introduced in 2014?
2. What is the estimated impact of a ban on below-cost selling?
3. How do these impacts vary by drinker group (moderate, increasing risk, high risk) and by income group (in poverty, not in poverty)?

METHODS USED

The Sheffield Alcohol Policy Model (SAPM) has been used previously in England and in Scotland to analyse the potential effects of pricing policies. We have developed a new version of the model to incorporate data and evidence relating to the Welsh population.

This research has obtained data and evidence from available sources as follows:

- Alcohol consumption and demographic information – General Lifestyles Survey (GLF)
- Alcohol purchase transactions and prices paid in off-trade outlets (e.g. supermarkets) and on-trade outlets (e.g. pubs, bars) by different population subgroups – Living Costs and Food Survey (LCF)
- Alcohol price distributions in supermarkets and other off-trade outlets – Nielsen
- Alcohol preferences for different types of beverage by different population subgroups – GLF combined with LCF
- Price elasticities – previously published research

- Hospital admission rates for alcohol-related diseases – NHS Wales hospital admissions data
- Mortality rates for alcohol-related diseases – Office for National Statistics (ONS) mortality data
- Costs of healthcare for alcohol-related diseases – previously published research
- Crime rates – Home Office figures on recorded crime and Ministry of Justice data on conviction rates by population subgroup
- Costs of policing and justice – Home Office estimates of unit costs of crime
- Work absence rates, work participation rates and average salary rates by population subgroups – Quarterly Labour Force Survey (LFS)

The model synthesises all of this data and evidence and models the estimated impact of possible future pricing policies on alcohol consumption, spending, Exchequer and retailer receipts and health, crime and workplace harms.

SUMMARY OF MODEL FINDINGS

Patterns of drinking and expenditure

F1. The evidence estimates that within the overall Welsh population aged 16+, the proportion of abstainers and people who drink at moderate (less than 21 units per week for men and 14 for women), increasing risk (21-50 units per week for men and 14-35 for women) and high risk (more than 50 units per week for men and 35 for women) levels are 16.0%, 62.5%, 15.8% and 5.7% respectively.

F2. Moderate drinkers consume on average 5.5 units per week, spending £310 per year on alcohol. Increasing risk drinkers consume 27.8 units per week, spending £1,190 per annum, and high risk drinkers consume on average 78.1 units per week, spending £2,960 per annum. These patterns differ somewhat when examined by income group, with moderate drinkers in poverty estimated to drink 4.9 units per week, spending £200 per annum, whilst moderate drinkers above the defined poverty line consume 5.6 units per week and spend £340 per annum.

F3. Overall, increasing and high risk drinkers combined (26% of the population) account for 72% of all alcohol consumption and 65% of all spending on alcohol. High risk drinkers alone (7% of the population) are responsible for 37% of consumption and 31% of all spending.

F4. Prices vary by type of beverage. When examining a potential minimum price for a standard drink (a floor price below which no alcohol may legally be sold) of 50p, the evidence suggests that 72.1% of all off-trade beer, 78.2% of off-trade cider, 41.5% of off-trade wine and 65.5% of off-trade spirits would be affected and incur a price rise.

Effect of modelled policies on consumption and expenditure

F5. For a 50p MUP, the estimated per person reduction in alcohol consumption for the overall population is 4.0%. In absolute terms this equates to an annual reduction of 30.2 units per drinker per year. The lower modelled MUP policies are estimated to have relatively

small impacts, with effectiveness increasing sharply above 45p per unit (45p = -2.6%, 50p = -4.0%, 55p = -5.6%).

F6. High risk drinkers have much larger estimated consumption reductions for MUP policies than increasing risk or moderate drinkers. For a 50p MUP the estimated reductions are 7.2% for high risk drinkers, 2.0% for increasing risk drinkers and 2.2% for moderate drinkers. Differences in absolute consumption reductions are considerably larger again, with high risk drinkers reducing their consumption by 293.2 units per year (5.6 per week) for a 50p MUP, compared to a reduction of 28.8 units for increasing risk drinkers and 6.4 units per year for moderate drinkers. Absolute reductions are also substantially larger for high risk drinkers in poverty (e.g. a reduction of 487.3 units per year vs. 243.0 units per year for high risk drinkers not in poverty).

F7. A ban on below-cost selling is estimated to have almost no impact on population consumption, spending and alcohol-related harms.

F8. Under these policies, drinkers are estimated to reduce consumption but pay slightly more on average per unit consumed, and so estimated percentage changes in spending are smaller than estimated changes in consumption. For all modelled policies, spending across the whole population is estimated to increase, for example by £10 (1.6%) per drinker per year for a 50p MUP alongside a consumption change of -4.0%. Spending changes also differ across the population, with high risk drinkers estimated to spend an extra £32 (1.1%) per year whilst moderate drinkers' spending increases by £2 (0.8%) at 50p MUP. Most of those in poverty are estimated to increase their spending under the majority of policies, with the exception of high risk drinkers in poverty who decrease spending when MUP is 55p or more.

F9. The impact of the policies examined on income subgroups differs hugely. For moderate drinkers, whether those above or below the defined poverty level, the impact is very small. For a 50p MUP, for example, moderate drinkers are estimated to reduce consumption by 6.4 units per year (e.g. around three pints of beer in the year), with a change in spending of on average £2.37 per year (around 5p per week). The effects on moderate drinkers in poverty are even smaller in spending terms, e.g. £2.15 estimated additional spending per annum for a 50p MUP, compared with £2.44 for moderate drinkers not in poverty, though they are higher in consumption terms (a reduction of 10.1 units per year for moderate drinkers in poverty versus 5.3 units per year for moderate drinkers not in poverty). The contrast with high risk drinkers is stark. High risk drinkers in poverty consume over 3,700 units per year, and the modelling estimates that a 50p MUP would reduce consumption in this group by 490 units per annum (-13.0%).

F10. Under all modelled policies (except a ban on below-cost selling), the estimated revenue to the Exchequer (from duty and VAT receipts on alcohol) is estimated to decrease slightly, with a 1.0% reduction (equivalent to £5.8 million) for a 50p MUP. Revenue to retailers is estimated to increase across all policies, with an increase of £27.0 million (3.3%) for a 50p MUP. The vast majority of this is accrued in the off-trade, although on-trade retailers are estimated to gain slightly under most policies (e.g. £2.0 million or 0.3% under a 50p MUP).

Effects of modelled policies on alcohol-related harms

F11. There are substantial estimated reductions in alcohol-related harms from all modelled policies, with an estimated reduction of 53 deaths and 1,400 fewer hospital admissions per year for a 50p MUP. As there is evidence of a time lag between changes in consumption and changes of rates of harm for some alcohol-related health conditions (e.g. various cancer rates increase 10 to 20 years after consumption increases), annual changes in health outcomes are reported at the full effect of the policy (using the 20th year following implementation of the policy as a proxy for this).

F12. All modelled policies are estimated to have greater reductions in deaths and hospital admissions per 100,000 drinkers for those in poverty than those not in poverty (e.g. 5 fewer deaths and 120 fewer hospital admissions per 100,000 drinkers for those in poverty under a 50p MUP vs. 2 fewer deaths and 50 fewer hospital admissions per 100,000 drinkers for those not in poverty).

F13. Direct costs to healthcare services are estimated to reduce under all modelled policies, with savings of £131 million over 20 years for an MUP threshold of 50p.

F14. Crime is expected to fall, with an estimated 3,684 fewer offences per year under a 50p MUP policy. High risk drinkers, who comprise 5.7% of the population, account for 49% of this reduction. Costs of crime are estimated to reduce by £248 million over 20 years under this policy, with higher MUP thresholds providing even greater savings.

F15. Workplace absence is estimated to fall under all modelled policies, with a reduction of 10,000 days absent per year for a 50p MUP.

F16. For a 50p MUP policy, the total societal value of the harm reductions for health, crime and workplace absence is estimated at £882 million over the 20 year period modelled. This figure includes reduced direct healthcare costs, savings from reduced crime and policing, savings from reduced workplace absence and a financial valuation of the health benefits measured in terms of Quality-Adjusted Life Years (QALYs – valued at £60,000 in line with Home Office guidelines).