

Your selected document

This entry is our account of a study selected by Drug and Alcohol Findings as particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original study was not published by Findings; click on the [Title](#) to obtain copies. Free reprints may also be available from the authors – click [prepared e-mail](#) to adapt the pre-prepared e-mail message or compose your own message. Links to source documents are in [blue](#). Hover mouse over [orange](#) text for explanatory notes. The Summary is intended to convey the findings and views expressed in the study. Below is a commentary from Drug and Alcohol Findings.

Send email address for updates

SEND[About update service](#)

[Title and link for copying](#) [Comment/query to editor](#) [Tweet](#)

Policy options for alcohol price regulation: the importance of modelling population heterogeneity.

Meier P.S., Purshouse R., Brennan A.
Addiction: 2010, 105(3), p. 383–393.

DOWNLOAD PDF
for saving to
your computer

Unable to obtain a copy by clicking title? Try asking the author for a reprint by adapting this [prepared e-mail](#) or by writing to Dr Meier at p.meier@sheffield.ac.uk. You could also try this [alternative](#) source.

Minimum unit pricing for alcohol has in England faced the barrier of being seen as punishing the majority drinking public for the minority of irresponsible and 'binge' drinkers. This report reassuringly assessed the impacts on moderate drinkers as minor – but less reassuringly, so too the impacts on young 'bingers'.

SUMMARY That raising the price of alcohol reduces population-level consumption and related harm across a population is well evidenced, but less so how impacts differ for different subgroups and people with different purchasing and drinking patterns, yet policymakers in the United Kingdom and elsewhere are increasingly under pressure to demonstrate 'proportionality' – that different groups are not seen as unfairly affected relative to others.

The featured report examined this issue based on a [simulation exercise](#) undertaken in 2008 for the English Department of Health, which predicted the impacts of alcohol pricing and promotion policies in England. The study examined the potential effects on patterns of drinking and the resulting impacts on health, crime, absenteeism in the workplace and unemployment. Over 40 policy scenarios were tested, including setting minimum prices per **unit** of alcohol and banning price-based promotions in off-licences and supermarkets. Overall the results suggested that policies which increase the price of alcohol can bring significant health and social benefits and lead to considerable financial savings in the health service, criminal justice system and workplace. Generally, the more restrictive the policy, the greater the harm reduction.

To extend this analysis to how different groups were affected, the featured study categorised the population in to 54 subgroups: people whose consumption level is **moderate**, **hazardous** or **harmful**, split by sex, and then also split into nine age bands from 11–15 to 75 and over. For each subgroup data from the annual General Household and Expenditure and Food surveys were cross-referenced to establish for each subgroup the types of drinks they consume, where they tend to buy it, and how much of their alcohol they buy in different per unit price bands.

This analysis revealed important differences in how much and which beverage types the subgroups consume, where and for what price they purchase their alcohol, and in predictions of how they would respond to price changes. On that basis, the researchers then set out to predict how each subgroup would respond to different alcohol pricing policies. The featured report focused on a subset of policy options: an overall 10% price increase; raising by 25% the price of low-priced off-trade or on-trade drinks; minimum unit pricing from £0.30 to £0.50, or £0.30 for beer only; setting a higher minimum unit price for on-trade (£0.60 or £0.80) than for off-trade (£0.20 or £0.30) sales; and banning off-trade discounting. In terms of the groups affected, it also focused on moderate versus hazardous versus harmful drinkers, under-25 hazardous drinkers – because of strong links to crime and disorder, a policy priority – and men versus women.

Main findings

Proportionately, heavy-drinking harmful drinkers would cut back far more than moderate drinkers in response to minimum unit pricing for all drinks, just for beer, or to raising the price of cheap off-trade products. Focusing in on under-25 hazardous drinkers, several policy options appear far less effective for this group and some counterproductive. The young male drinkers overrepresented in this group prefer beer and on-trade drinking, so policy options affecting on-trade prices target this group effectively but have smaller effects on moderate and harmful drinkers. In contrast, off-trade discount bans and uniform minimum pricing options tend to affect on-trade prices only marginally, so have limited impacts on this group.



Key points

The featured report speaks to the political need to demonstrate 'proportionality' in alcohol pricing policy – that different groups are not seen as unfairly affected relative to others.

It used a simulation model for England to estimate the impacts of different pricing policies, including various minimum unit prices, on different types of drinkers.

In all cases the least heavy drinkers who stay within drinking guidelines would be affected least both in their drinking and financially compared to heavier drinkers.

However, policies do have differential impacts. For example, compared to general price increases, minimum pricing tends to affect harmful drinkers proportionately more, but young hazardous drinkers less, than drinkers in general.

The relative cost savings in different public policy sectors also vary substantially across the policy options.

Some of the most policy-relevant variations arise from (relative to other population groups) the preference of young male heavy drinkers for drinking in bars and clubs, meaning they and associated crime are less affected by policies which mainly raise off-trade prices.

Another policy priority might be to minimise impacts on moderate drinkers. All the selected policy options affect these drinkers less than drinkers overall, but to different degrees. Compared to the general population of drinkers, they are least affected by lower price minimum unit price options and targeting cheap off-trade alcohol. The impact on their drinking would come closest to the overall reduction in response a general price increase and increases targeting on-trade alcohol.

As expected given drinking preferences, men are more affected by raising beer or on-trade prices than women, but less affected by policies targeting wine or the off-trade. Uniform minimum pricing options mainly affect the off-trade, so affect women more than men, while setting different on-trade and off-trade minimum prices has greater effects on men.

Across all policy options and drinking levels, per person spending on alcohol is predicted to rise, because drinkers do not cut back enough to offset price rises. The spending of harmful drinkers increases most. Moderate drinkers are affected relatively little, but most by a general price rise.


Changes in drinking in turn affect the costs imposed on society by the consequences of drinking, but the totals and which sectors benefit most vary depending not just on the overall fall in consumption, but on how this is constituted in terms of who and what drinking patterns are most affected. For example, crime and disorder and workplace absences are mainly associated with heavy single-occasion drinking, and crime is affected most by changes in the drinking of young men rather than women or older people. In contrast, a large proportion of direct health costs are associated with long-term chronic drinking in older drinkers.

Placing a financial value on these harm reductions enables them to be compared across policy options. Over ten years, total estimated savings in direct health, crime, workplace and unemployment costs range from £633 million for a minimum off-trade price of £0.20 and on-trade of £0.60, up to £7.1 billion for a minimum unit price of £0.50. Due to the strong relationship between alcohol-related crime and on-trade drinking by young men, policies that target the on-trade sector lead to greater crime cost savings as a *proportion* of the total than those that affect only the off-trade, but still the *absolute* level of saving may be less. For example, while under 6% of the total savings associated with a £0.50 minimum unit price are due to reductions in crime, the estimated monetary value of these crime savings is £413 million. In contrast, 34% of savings associated with targeting cheap on-trade alcohol are due to crime reductions, but at £400 million, their value is lower. Low minimum unit prices and targeting cheap off-trade products lead to savings largely due to impacts on unemployment and the workplace, while health savings are proportionately greatest for a ban on off-trade discounting, higher minimum pricing options (£0.50 or more) and general price increases.

The authors' conclusions

This work pushed further than existing studies by examining subgroups by age, sex and three consumption levels, and considering their drinking preferences in terms of beverage types, price and locations, enabling a fine-grained analysis. It showed that, even though alcohol policies may appear similar at a total population level, different groups are affected by alternative policies in different ways. For example, compared to general price increases, minimum pricing policies tend to affect harmful drinkers proportionately more, but young hazardous drinkers less than drinkers in general. There are also significant differences between policy options in the balance of health, crime, workplace and unemployment cost-savings.

Among other limitations of the analysis, there was insufficient evidence to attempt to account for how the alcohol industry might respond to such policies and possible effects on market structure and supply. Also the analysis was unable to extend to wider costs or benefits, 'drinkers' pleasure' or 'social lubricant' effects, or to include lower-level social disorder and the effect on families and friends of harmful drinkers.

 **COMMENTARY** Findings has summarised both the UK politics and the evidence about the most-debated policy option, minimum unit pricing, in a [hot topic](#) entry. It cites the simulation exercises from the University of Sheffield team which authored the featured article, conducted for [England](#), [Scotland](#) and [Wales](#), which on public health and other grounds supported setting a relatively high minimum price per unit of alcohol. With some of these analyses available to them, Britain's National Institute for Health and Clinical Excellence (NICE) [has argued](#) that price rises and licensing changes to reduce the number of outlets are the key public health levers.

Now shelved for England but still (legal challenges allowing) going ahead in Scotland, minimum unit pricing has faced the political barrier of [having to be convincingly presented](#) as not punishing the majority drinking public for the minority of irresponsible and 'binge' drinkers. The featured article commissioned by (and subject to the approval of) the government's Department of Health fed directly in to that debate, reassuringly assessing the impacts on moderate drinkers as minor. However, the most consistent policy target for the Conservative party leading the government [has been](#) young heavy drinkers and the crime and disorder and offence they cause. This group's preferences for drinking in clubs and pubs and probably also the episodic nature of their drinking make a minimum unit price less effective at forcing cutbacks. Set at £0.50, the featured study estimated this would lead them to drink on average just 3% less a year, meaning that proportionately they would be slightly less affected than the more politically favoured general population of moderate drinkers.

The British simulation exercises including the featured analysis were dominated by cost savings attributed to productivity gains due to less drink-related unemployment. In the featured analysis, under all but one of the policy scenarios this constituted over half the total estimated savings. However, it [has been argued](#) that in the absence of full employment, vacancies left by drinkers will usually be filled by someone else, ending perhaps via a chain of job changes in someone currently unemployed gaining a job. If on these grounds such savings are fully or partially discounted, the cost savings estimates may change substantially. However, even purely on health grounds a £0.50 minimum unit price would remain by the far the greatest cost saver of the options examined.

At the time the featured article was published the Sheffield group had yet to examine differential impacts on people with different incomes. In 2012 official impact assessments of minimum unit pricing for both [Scotland](#) and [England](#) acknowledged that those hit hardest in the pocket would be poor regular drinkers, though they too stood to gain most in health terms if they responded as expected by cutting back their drinking. At the government's request, this issue was later [specifically addressed](#) by the University of Sheffield team. [In contrast](#) to government assessments based on their earlier work, in 2013 they calculated that low-income drinkers would cut back so much that they would spend less on

drink if the price was set at £0.45 per unit. By far the greatest savers would be the heaviest of drinkers among the poor, who would find searching out cheap drink no longer a viable strategy for maintaining consumption.

Last revised 10 March 2015. First uploaded 06 March 2015

[Comment/query to editor](#)

[Give us your feedback on the site \(two-minute survey\)](#)

Open Effectiveness Bank [home page](#) and [enter e-mail address](#) to be alerted to new studies

Top 10 most closely related documents on this site. For more try a [subject or free text search](#)

[Independent review of the effects of alcohol pricing and promotion](#) STUDY 2008

[Estimated effect of alcohol pricing policies on health and health economic outcomes in England: an epidemiological model](#) STUDY 2010

[The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms](#) REVIEW 2010

[The likely impacts of increasing alcohol price: a summary review of the evidence base](#) REVIEW 2011

[Model-based appraisal of alcohol minimum pricing and off-licensed trade discount bans in Scotland](#) STUDY 2009

[Potential benefits of minimum unit pricing for alcohol versus a ban on below cost selling in England 2014: modelling study](#) STUDY 2014

[Model-based appraisal of minimum unit pricing for alcohol in Wales](#) STUDY 2014

[Economic impacts of alcohol pricing policy options in the UK](#) STUDY 2011

[Alcohol-use disorders: Preventing the development of hazardous and harmful drinking](#) REVIEW 2010

[Identifying cost-effective interventions to reduce the burden of harm associated with alcohol misuse in Australia](#) REVIEW 2008