


DRUG & ALCOHOL FINDINGS *Research analysis*

This entry is our analysis of a study considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original study was not published by Findings; click [Title](#) to order a copy. [Links](#) to other documents. [Hover over](#) for notes. [Click to](#) highlight passage referred to. Unfold extra text . The Summary conveys the findings and views expressed in the study. Below is a commentary from Drug and Alcohol Findings.

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▶ **Model-based appraisal of the comparative impact of minimum unit pricing and taxation policies in Scotland.**

Angus C., Holmes J., Pryce R. et al.
University of Sheffield, 2016.

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Whether alcohol tax rises would be an acceptable and effective alternative could determine the legality under EU law of Scotland's law permitting a minimum unit price for alcohol. This analysis predicts tax rises would curb consumption and save lives, but not without perhaps unacceptably hitting the pockets of non-harmful drinkers.

SUMMARY The featured report was commissioned in 2015 by the Scottish Government to compare the potential impacts of different minimum retail prices per unit of alcohol versus the alternative strategy of increasing alcohol taxation. The impacts to be assessed included levels of alcohol consumption, spending on alcohol, Exchequer and retailer revenues, and alcohol-related health among population subgroups defined by levels of drinking and income.

Data and assumptions were fed into a mathematical simulation which predicted the impacts of the various policies over the 20 years after implementation. A minimum price of £0.50 [the price government proposed for Scotland] per unit (about 8g) of alcohol was set as the benchmark, then the analysts estimated the increases in tax required to match that policy's impacts on: yearly deaths due to drinking; of those deaths, the number among **hazardous and harmful** drinkers or just among **harmful** drinkers; and within those subgroups, deaths of people living in **poverty**.

Main findings

If alcohol cost consumers at least £0.50 per unit the effect would be to reduce drinking among hazardous and, particularly, harmful drinkers. These consumption reductions would lead to reductions in alcohol-related deaths and hospitalisations. A £0.50 minimum would reduce alcohol consumption in Scotland by 3.5%, leading to an estimated 2040 fewer alcohol-related deaths and 38,900 fewer hospital admissions over the first 20 years of the policy. **Moderate** drinkers would experience only small impacts on consumption and spending because they tend to buy alcohol which already costs near or above the anticipated minimum price.

To achieve the same reduction in alcohol-related deaths among hazardous and harmful drinkers as a £0.50 minimum, alcohol taxation would need to increase by 28%, based on alcohol duty and VAT rates effective from 23 March 2015. Compared to a £0.50 minimum, a 28% tax increase would lead to slightly larger reductions in consumption among moderate and hazardous drinkers, but smaller reductions among harmful drinkers, particularly those living in poverty – the sector at greatest risk from their drinking. Among the higher risk, harmful drinkers, a 36% tax increase would be needed to achieve the same reductions in deaths as a £0.50 minimum, and a 70% increase to achieve the same reduction in deaths among harmful drinkers in poverty.

Consumers would spend only modestly more on alcohol if it cost at least £0.50 per unit, and harmful drinkers in poverty would actually spend less. Larger changes in spending would be seen under a 28% tax increase, and spending would increase in all groups, including among harmful drinkers in poverty.

The authors' conclusions

Although alcohol tax increases would reduce drinking and related mortality and illness, this approach is less well-targeted to the most risky drinkers and less robust in its effects than setting a minimum price per unit. In particular, tax increases of equivalent life-saving impact would impose greater costs on low-risk drinkers, while a £0.50 minimum affects heavier, lower income drinkers most, reducing their drinking and associated mortality and illness. This effect means a £0.50 minimum would help even out health inequalities.

Because it imposes large price increases on the low-cost alcohol disproportionately purchased by the heaviest consumers, a £0.50 minimum price would generate its largest reductions in drinking among hazardous and, particularly, harmful drinkers. Moderate drinkers, who rely more on alcohol already near or above £0.50 per unit, would be relatively unaffected.

A 28% increase in alcohol taxation would generate the same reduction in alcohol-related deaths among hazardous and harmful drinkers, but would be less well-targeted. Compared to a £0.50 minimum, it would lead to smaller consumption reductions among the harmful drinkers whose health is at greatest risk, larger consumption reductions among lower risk drinkers, and spending would increase more and across all population groups.

Reducing health inequalities is a major public health concern, and in this context means reducing risk more among higher risk drinkers. However, matching the lifesaving impact of a £0.50 minimum requires greater tax increases in higher risk groups, escalating to a 70% increase among harmful drinkers in poverty. This happens because raising taxes affects the

price of alcohol consumed by all drinkers. If one wishes to reduce alcohol-related harm in harmful drinkers, large tax

Key points
 From summary and commentary

Whether tax increases would be an acceptable and effective alternative could determine the legality under EU law of Scotland's law permitting the setting of a minimum unit price for alcohol.

The featured analysis predicts that a large tax increase would save as many lives but would also cause the majority of non-harmful drinkers to spend appreciably more on alcohol.

These results should bolster Scotland's chances of implementing its minimum pricing law.

price of alcohol consumed by all drinkers. If one wishes to reduce alcohol-related harm in harmful drinkers, large tax increases are needed to produce large consumption (and thus harm) reductions, but these increases would also affect other drinkers.

The two strategies also differ in the degree to which they can be circumvented and the desired effects undermined. A minimum price requires alcohol to be sold above a particular price point, while tax increases permit cheaper alcohol to continue to be sold. When tax has increased in the UK, retailers have increased the price of cheaper products by less than would be expected, and that of more expensive products by more. The effect is to redirect price increases away from the cheap alcohol disproportionately purchased by those at greatest risk from their drinking, necessitating larger tax increases to achieve a given reduction in consumption among highest-risk drinkers. Also, tax increases give heavier drinkers greater scope to 'trade-down' to cheaper alcohol. Hazardous and harmful drinkers who currently buy large amounts of cheap alcohol may be able to maintain their consumption by switching to still cheaper alcohol when prices go up. 'Trading' down was not accounted for in the featured analysis, meaning that it may have underestimated the relative benefits of minimum pricing.

FINDINGS COMMENTARY Commissioned by the Scottish Government, the featured analysis offers ammunition to defeat the main legal challenge to the implementation of the law permitting that government to set a minimum unit price for alcohol in Scotland. For the European Union [it seems](#) minimum pricing might be legal [only if](#) no other feasible and less trade-constricting measure would do the same things without disproportionately creating adverse 'side-effects' elsewhere. An obvious candidate for that other measure was the tax increases against which the featured analysis pitted the minimum pricing option favoured by the dominant Scottish National Party. The fact that the analysts found adverse side-effects in the form of the impact on moderate drinkers bolsters Scotland's case for a minimum unit price.

Because the aim of the analysis was to compare one policy against another in health and financial terms, it largely sidestepped [fundamental questions](#) about the *absolute* balance between the costs and benefits of policies which compel heavier and poorer drinkers to cut back on their drinking, improving their health, but also depriving them of whatever benefits they felt they got.

A key prediction in the featured report was that the heaviest and poorer drinkers would cut back so much that they would spend £88 less a year on drink, rather than further impoverish themselves and their families by spending more to sustain their usual consumption. Previously a similar prediction had been made for England ([1 2](#)), the derivation of which [was examined](#) in our hot topic on minimum pricing. The predictions for both Scotland and England [hinged](#) on UK data about how households changed their spending over the years 2001 to 2009, a period during which they experienced nothing approaching the substantial dip in the affordability of alcohol which those reliant on strong but cheap drink would face from a high minimum price. As Professor [John Beath](#) [warned](#) the Scottish parliament's health and sports committee, how drinkers respond when alcohol prices are in relative terms stable or falling may not predict how they would respond to a sudden increase. Alcohol devotees may, he suggested, take advantage of increased affordability by drinking more, and then find it difficult to cut back when prices go up.

An Effectiveness Bank [hot topic](#) has further explored the politics and the evidence for setting a minimum unit price for alcohol in the UK.

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