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► [Are alcohol prices and taxes an evidence-based approach to reducing alcohol-related harm and promoting public health and safety? A literature review.](#)

Patra J., Giesbrecht N., Rehm J. et al.

Contemporary Drug Problems: 2012, 39, p. 7–48.

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Review updating knowledge to mid-2011 confirms that alcohol-related harm and illness have been curbed by increasing alcohol prices or taxes, but what happens to overall mortality remains unclear – and there is more to why people do or do not drink than health and harm.

SUMMARY Taking in studies published by mid-2011, this review from a team based in Canada updates our understanding of research on whether alcohol price and tax changes affect amounts drunk and resultant harms across a population.

The authors begin by noting that [an assessment](#) of 42 alcohol-related public health strategies and interventions found the evidence strongest for raising taxes, one way of increasing price. Focusing on taxes and prices, the featured review sought English-language studies published in peer-reviewed journals between January 1980 and June 2011. In all 54 studies were found, 36 on taxation and 18 on price. Impacts on drinking patterns and high-risk drinking were assessed in 26 of the studies, alcohol-related harm in 39. About half drew their data from the USA; the remainder from other westernised developed nations, including the United Kingdom.

Main findings

This account summarises the authors' overall findings then focuses on their findings on the impact of price on harm, the key issue in the UK context.

Taken together, the reviewed studies indicate that as alcohol taxes or prices rise or fall, there is an opposite trend in high-risk drinking and in harms. Harms included: alcohol-related problems as measured by the [AUDIT questionnaire](#) used to screen for risky drinking; deaths related to motor vehicles; sexually transmitted diseases; rapes and robberies; spousal abuse; crime involving youth and young adults; premature mortality; suicide; and cirrhosis mortality. In other words, across these studies, if access to alcohol was restricted through higher taxes or prices, there tended to be a decrease in high-risk drinking and alcohol-related harm; if access was eased through lower taxes or prices, there tended to be an [increase](#) in high-risk drinking and alcohol-related harm.

Six studies focused primarily on the impact of price on alcohol-related harm. A US study found that while rising/falling alcohol prices were associated with falling/rising alcohol-related mortality, price was not a statistically significant contributing factor to deaths from falls, fires and other accidents. Another US study found that an increase in the price of alcohol reduced the likelihood of severe violence perpetrated by husbands on wives; it was calculated that a 1% increase in price per unit of pure alcohol reduced the probability of being a victim of wife abuse by 5%. A later study involving the same author found among US college students that violence fell when the price of beer increased. In contrast, in Finland interpersonal violence rates did not increase after a large reduction in alcohol prices.

The authors' conclusions

A comprehensive approach is needed to reduce the harm from alcohol and associated healthcare and other costs. Within such an approach, the reviewed literature points to the importance of alcohol taxes and prices. The findings are consistent with other reviews and [meta-analyses](#) which have concluded that a reduction in price stimulates alcohol consumption and an increase tends to curtail it. Since increases in consumption have been linked to increases in alcohol-related harm, there are public health and safety benefits in maintaining the real price of alcohol, and in not resorting to discount pricing to stimulate consumption. Important challenges are, however, faced by policymakers in deciding how these changes might be implemented, which beverages to focus on, and whether to target beverages particularly attractive to high-risk groups.

It is important to acknowledge some of the limitations and strengths of the reviewed studies and of this review. First, studies varied in the changes they were assessing and also in the impacts they found, some being limited to one beverage (eg, spirits) or certain sectors of the population. However, this is not surprising, given that laboratory-type, highly controlled experiments are not possible when it comes to examining the impact of alcohol taxes and prices in the real world. Second, a change in taxation is typically not the only thing that is going on during the intervention phase that might potentially affect drinking patterns or rates of alcohol-related harm. Typically the original research did not consider such influences, so neither could this review. Third, the review did not assess the possible counterbalancing benefits of moderate alcohol consumption. However, a counterbalancing loss of benefit would only be seen if tax- or price-related interventions led moderate drinkers to abstain from drinking in their later years. Furthermore, beneficial effects occur in older age groups, whilst most studies in this review showed taxation or price interventions have a substantial impact on youth and young adults. Finally, the quality of the results of the modelling studies (which extrapolate from other data to what might happen when prices or taxes change rather than observing what actually happens) included in the review is limited by the sources, appropriateness, and accuracy of their assumptions.

FINDINGS COMMENTARY Evidence is consistent and compelling that the alcohol-related ill-health and harm commonly investigated by studies does co-vary as expected with taxes and price, increases improving health and reducing harm, decreases making things worse. But as the featured review acknowledges, alcohol may (the main one – protection against heart disease – has recently [been challenged](#)) also have some health benefits. Associated social and work activities may also impact on health in ways hard to predict. The featured review seems to have included no study which was able to estimate *net* health harm/benefit by relating related tax/price to *overall* mortality, whatever the cause.

[Another review](#) which focused on real-world studies (ie, not modelling exercises) and on morbidity and mortality suffered from the same limitation. It found just [one study](#) which related tax to overall mortality, whatever the cause. In this study, US state alcohol taxes were weakly related to fewer deaths overall, but not with sufficient strength or consistency to [eliminate the possibility](#) that the relationship was due to chance rather than to a real link with tax levels.

The authors of the featured review argue that even if they are real, the direct benefits of moderate drinking on health are unlikely to counterbalance the health-promoting effects of tax and price rises, and that seems a justified expectation. But there remain possible indirect health benefits, and beyond these, any social and psychological benefits drinkers feel they get from drinking – the reasons why they are prepared to pay for it, and the reason why the Home Office [foresaw](#) a “decrease in net social welfare” from a high minimum per unit price.



Despite these considerations, it seems highly likely that purely in health terms, raising the price of alcohol in Britain will bring substantial benefits, the verdict reached by Britain's National Institute for Health and Clinical Excellence [when it assessed](#) the likely consequences of setting a minimum price per unit of alcohol.

For more extended discussion of the evidence on alcohol price/tax rates and health see this [Findings analysis](#). For policy developments in the UK see this [Findings hot topic](#). At the time of writing the Scottish government has passed but due to legal challenges not yet been able to implement a law enabling it to set a minimum price per unit of alcohol. For England and Wales the UK government was committed to a similar policy but backtracked to a ban on the sale of alcohol below the cost of duty plus VAT, estimated to have very minor effects on overall consumption or on health.

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