# Taxation Is The Cost-Effective Means To Reduce Alcohol Consumption - Are We Surprised?



By Chuck Dinerstein, MD, MBA — September 10, 2018



Courtesy of Nik Frey [1]

Non-communicable diseases are often associated with our behavior; tobacco remains the poster child and efforts at reduction in its use has provided lessons on how to affect similar change for other health concerns. In a new review in the Journal of Studies of Alcohol and Drugs, the subject is alcohol, but it could just as well be Big Sugar or in some alternate future, Big Marijuana. So what works, what policy tools can we employ to nudge behavior away from substances that can cause harm. Spoiler alert – education is not on the list.

The abuse of alcohol is believed to be, in part responsible, for about 5% of global deaths and by World Health Organization estimates accounts for about 4% of our global "disease burden." The current review looks at preventative interventions previously designated by WHO as "best buys;" that is the most cost-effective. They begin by defining how much alcohol is hazardous and harmful to consume – 20 g/day for women, 40g/day for men.

## An aside

For reference purposes, the National Institute of Alcohol Abuse and Alcoholism describes a "standard" drink containing 14g of alcohol. So the amount of alcohol considered harmful in this study translates to two 16 ounce beers or a half bottle of wine or 1.5 mixed drinks.

## The study

They use various datasets to calculate both the costs of prevention and their utility. More specifically the model compares the selected interventions against no intervention at all and looks at years of health added over a lengthy period, 100 years. As with all models, there are weights

given to disability, death, and a host of other factors that create a more predictive model and provide a playground for the unscrupulous to tweak outcomes. I hasten to add that I have no belief or reason to believe that tweaking was involved in the study's results.

The model considered a number of interventions

- 50% increase in sales tax. Current US tax is \$0.21/ounce. The impact varies with how much people are willing to spend on alcohol.
- Ban or restriction on advertising across all media. The impact is modeled to reduce these advertisements by 1.2%
- Restriction of physical access through decreased hours of sale. We have already learned that banning access creates more problems than solutions. The impact here is roughly 2-4% reductions in purchases
- Enhanced enforcement of drunk driving laws checkpoints estimated to reduce nonfatal and fatal accidents by 15-20%
- Brief psychosocial interventions for persons with hazardous or harmful use. [1] This is estimated to reduce consumption by 3.6 drinks/week and reduce binge drinking by 11%.

## Model results

Method	· .	Healthy life years gained/1 million population *	Cost effectiveness*	
	50% excise tax	\$0.10-0.50/person	568-1,128	\$22-41/year g
	Advertising Restrictions	\$0.10-0.30/person	205-390	\$48-120/year
	Restriction of marketing hours	\$0.20-0.60/person	251-355	\$77-181/year
	Brief Psychosocial interventions	\$0.10-\$1.39/person	692-971	\$143-1,434/ye
	Enhanced Law Enforcement	\$0.50-1.50/person	35-50	\$1,500-3,000/

<sup>\*</sup>rises for higher-income countries

The model does not take into account the tax revenue generated or lost because it varies so much by country, current taxation, levels of harmful alcohol use and the willingness of the populace to spend more for alcohol. A difficulty shared in all of the studies of sin taxes.

In their discussion, the authors note the significant variability in the implementation of these "...best buys for prevention and control of NCDs." In fact, only tobacco has experienced this focused concern. Impediments to alcohol restriction include the objections raised by industry and a public image of alcohol that "remains relatively positive." That relative positivity may account for

the spate of commercials equating "buzzed" driving with drunk driving, which is indeed true. It also suggests that perception of harm is a significant factor in the motivation to drink or to regulate. The understanding of harm may help to explain why these preventative measures are so variably applied and enforced in low-income countries where alcohol attributed harms are the greatest.

Education and personal responsibility as cost-effective means of harm reduction are honored in word, not deed by the WHO's empirically observed pragmatic preventatives. They have published the game plan for the reduction of health harmful activities, and they begin with taxes and decreased access. What isn't stated, but may be equally valid, is that health harmful activities are not always explicit and change with time. This published framework can help us understand the shape of the debate surrounding vaping, sugar, or calories. It may also inform us as to the ominous tone used in the author's conclusion. Failure by the global community to treat alcohol as they treat tobacco,

"...leaves concerted multisectoral and multinational action far more open to undue influence being given to nonstate actors and partial or compromised government enforcement." [Italics added]

My only previous exposure to the term, nonstate actors, was in connection with terrorism.

[1] Psychosocial evaluation was carried out by a primary care physician and consisted of 3 visits, to screen, intervene and re-assess. 20% of patients would require outpatient services and 5% in patient care. Screening would identify about 50% of harmful use.

Source: Are the 'Best Buys' for Alcohol Control Still Valid? An Update on the Comparative Cost-Effectiveness of Alcohol Control Strategies at the Global Level Journal of Studies on Alcohol and Drugs DOI: 10.15288/jsad.2018.79.514

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# Links

[1] https://en.wikipedia.org/wiki/Flaming\_beverage#/media/File:Flaming\_cocktails.jpg