Letter to the Editor

Reply to: Effects of a Comprehensive Pro-alcohol Policy in Washington State

William C. Kerr*, Edwina Williams, Yu Ye, Meenakshi Sabina Subbaraman, and Thomas K. Greenfield

Alcohol Research Group, Public Health Institute, 6001 Shellmound Ave, Suite 450, Emeryville, CA 94608, USA

*Corresponding author: Tel: +1 (510) 898 5800; wkerr@arg.org

Liquor privatization was the specific focus of our study, which was the subject of Dr Braillon's letter; this complex policy change involved liberalization of retail availability and wholesale practices but also an effective increase in taxation. Tax rates in Washington are complicated as they include both fees and taxes based on both price and spirits volume implemented at different points in the distribution process. Dr Braillon's figures on tax rates appear to come from the Tax Foundation website, where estimates from the Distilled Spirits Council of the USA are presented. The \$35.22 per gallon figure is from 2013, after privatization had occurred, and estimates from the same source for 2011 show an estimated tax rate of \$26.70 under the government control system. As noted in our paper (Kerr *et al.*, 2018), we have also demonstrated that liquor prices increased from 2012 to 2014 by 15.5% for an index of 750 ml containers and 5.5% for an index of 1.75 L containers, reflecting increased spirits taxes (Kerr *et al.*, 2015). The letter's 2017 tax estimate of \$31.48 may represent the reduction in the wholesale fee to 5% that occurred by 2015 and possibly variation from assumptions in the estimation formula regarding product prices for converting ad valorem to specific tax rates. Regardless, it is clear that tax rates increased with privatization, and Washington continues to levy the highest spirits taxes of any US state. Therefore, although liquor availability did greatly increase, it is not accurate to describe the Washington liquor privatization as only a liberalization.

Liquor-related income is also somewhat complicated in Washington as this includes both taxes that did not change across privatization and other sources that did change. First, an ad valorem tax on dollar sales and a specific tax on spirits volume were applied at consistent rates across privatization. Second, before privatization the state received revenues from government wholesale and retail store profits, while after privatization income also includes wholesale and retail-level fees on gross dollar sales. The figures quoted by Dr Braillon do not match any reported by Washington state government sources. Revenues from the tax on liters of spirits sold, \$3.7708 per liter of spirits regardless of ethanol content, should have the clearest relationship with alcohol sales as the other taxes and fees are percentages of dollar sales. The liter tax revenue as reported by the Washington Department of Revenue did increase from \$125,256,000 in fiscal year 2011 to \$139,549,000 in 2014,

\$147,541,000 in 2016 and \$151,822,000 in 2017. These changes indicate an increase of 11.4% to 2014 and 17.8% to 2016. While these figures show an increase in liters of spirits sold, changes in the population, which increased by 7% from 2011 to 2016, can account for much of the increase to 2014. A more significant increase in per capita liter sales occurred in 2016 and 2017, years beyond the 2011–2015 period examined in our paper, where a very small increase of 2.7% in per capita spirits sales for the population aged 14+, as reported by NIAAA, are shown (Haughwout and Slater, 2017).

Our survey analyses suggest that drinkers were consuming the same amount with fewer days in which five or more drinks were consumed, and we think this is appropriately described as a shift to more moderate drinking patterns. While we acknowledge the limitations of self-report and retrospective reporting, we do not rely only on survey measures for drawing conclusions; we also consider apparent per capita consumption changes as detailed in the paper. We do not attempt to define moderate or low risk drinking. While it is true that alcohol use is associated with a dependence syndrome, this does not preclude moderate use by whatever definition one might prefer. We are well aware of the risks from alcohol use and have published extensively in this area including studies of alcohol-attributable cancer impacts (Nelson *et al.*, 2013), studies questioning findings of protective effects (Fillmore *et al.*, 2006) and population-level studies of alcohol's contribution to related mortality causes (Kerr and Ye, 2011; Kerr *et al.*, 2011, 2013). We have also argued against recommending drinking to non-drinkers based on the inconclusive literature suggesting protective effects from moderate use (Greenfield and Kerr, 2014). While the NESARC study cited may overestimate recent increases in US alcohol consumption measures (Gruza *et al.*, 2018), we agree that rising alcohol use among adults is a major public health issue and support strengthening effective alcohol control policies, including as taxation and government control of sales, at the national, state and community levels.

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