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Health, Social Care and Sport Committee
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December 5, 2017

Dr Dai Lloyd
Chair, Health, Social Care and Sport Committee
National Assembly for Wales
Cardiff Bay
Cardiff, CF99 1NA

Dear Dr Lloyd,

Re: Canadian evidence examining associations between minimum price changes and levels of alcohol related harm

Please find enclosed/attached some copies of published papers on this topic. These papers focus primarily on British Columbia where my research base is located. Please note that minimum prices have been in operation here for at least 30 years. They have not kept pace with inflation and have only occasionally been adjusted. Our research has examined short and longer term impacts each time a minimum price for a particular beverage is increased. Alcohol industry critics of our research have pointed out that over much of the period we look at, alcohol consumption and related harm has increased despite our having minimum pricing. This criticism indicates a complete lack of understanding of what our research achieved as we simply demonstrated an inverse association between price and harms – for most of the time the value of minimum pricing has declined in British Columbia resulting in increased consumption and related harm. This research was primarily funded by a peer reviewed grant I obtained with a team of other researchers from the US and UK from the Canadian Institutes of Health Research. We also published three papers examining the experience of Saskatchewan where there was an especially sudden change in minimum pricing policy that presented more a clear-cut natural policy experiment. Note that this resulted in estimates of higher impacts on alcohol consumption than in British Columbia.

Please find below a list of the papers (from oldest to newest) provided with comments (**) about their contribution.

1. Hill-McManus, D., Brennan, A., Stockwell, T., Giesbrecht, N., Thomas, G., Zhao, J., Martin, G. and Wettlaufer, A. (2012) Model-based appraisal of alcohol minimum pricing in Ontario and British Columbia: A Canadian adaptation of the Sheffield Alcohol Policy Model Version 2. Technical Report, Centre for Addictions Research of BC, University of Victoria, British Columbia, Canada. See: Services Society by the Centre for Addictions Research of BC, University of Victoria, BC.

<https://www.uvic.ca/research/centres/cisur/assets/docs/report-appraisal-alcohol-minimum-pricing.pdf>

** The Sheffield University modelling team collaborated with us to generate estimates of the potential benefits of introducing minimum unit pricing into Canadian provinces. Of note is that their estimates are highly conservative in comparison with the empirically derived estimates of actual impacts each time minimum price rates have been adjusted in British Columbia.



2. Stockwell T, Auld MC, Zhao JH, Martin G. (2012) Does minimum pricing reduce alcohol consumption? The experience of a Canadian province. *Addiction*, 107(5): 912-20.
<http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2011.03763.x/epdf>

** This paper examined a long time series of precise alcohol sales data for different beverage types across 89 areas of British Columbia to examine how this changed each time the minimum price of a particular beverage increased. Note that the overall trend in consumption is both up and down, more recently it has been up reflecting increasing privatization of the liquor market in this province. Nonetheless significant and measurable downward impacts on consumption are detected each time the minimum price increases in real terms. On average, a 10% change in minimum price is associated with an opposite effect on per capita consumption of 3.4%.

3. Stockwell, T., Zhao, J., Martin Stockwell T, Zhao J, Giesbrecht N, Macdonald S, Thomas G, Wettlaufer A. (2012). The raising of minimum alcohol prices in Saskatchewan, Canada: impacts on consumption and implications for public health. *American Journal of Public Health*. 102(12): e103-10, <http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2012.301094>.

** This paper documents a sudden impact on consumption when a policy quite similar to Minimum Unit Pricing is introduced overnight. A 10% change in average minimum pricing was associated with an opposite effect on per capita consumption of 8.4%. Consumers also shifted to lower strength beer and wine. The government owned alcohol distributor collected more revenue after the policy was introduced.

4. Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., Ponicki, W., Tu, A. & Buxton, J. (2013). Misleading UK alcohol industry criticism of Canadian research on minimum pricing. *Addiction*, 108(6) 1172 <http://onlinelibrary.wiley.com/doi/10.1111/add.12178/pdf>.

** This paper explains how industry criticisms of our research were deliberately misleading and did not reflect the methods we used or conclusions reached.

5. Zhao, J., Stockwell, T., Martin, G., Macdonald, S., Vallance, K., Treno, A., Ponicki, W., Tu, A. and Buxton, J. (2013). The relationship between changes to minimum alcohol price, outlet densities and alcohol-related death in British Columbia, 2002-2009. *Addiction*, 108(6) 1059-1069
URL:<http://onlinelibrary.wiley.com/doi/10.1111/add.12139/pdf>. Accessed: 2013-02-27.
(Archived by WebCite® at <http://www.webcitation.org/6EkhRcmAX>).

** A large and immediate effect was detected in relation to changes in average minimum pricing having opposite effects on 100% alcohol caused deaths across 89 local areas of BC. A delayed impact after three or four years was also detected on alcohol-related diseases following changes in minimum price rates.

6. Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., Ponicki, W., Tu, A., & Buxton, J. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: Estimated impacts on alcohol-attributable hospital admissions. *American Journal of Public Health*, 103(11) 2014-2020.
<http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2013.301289>

** A significant association was found between changes in average minimum prices in BC and opposite effects on rates of acute alcohol-related hospital admissions (i.e. injuries, poisonings). Similar to Zhao et al (2013) an association was also found between changes in average minimum price and opposite changes in rates of alcohol-related diseases.

7. Stockwell, T. (2014). Minimum unit pricing for alcohol. *British Medical Journal*, 349:g5617. <http://www.bmj.com/content/349/bmj.g5617>

** This paper is a high-level commentary and makes reference to likely reasons multinational alcohol companies oppose minimum pricing even though it guarantees increased profits to high-profile producers such as those represented by the Scotch Whiskey Association.

8. Stockwell, T., Zhao, J., Marzell, M., Gruenewald, P., Macdonald, S., Ponicki, W. & Martin, G. (2015). Relationships between minimum alcohol pricing and crime during the partial privatization of a Canadian government alcohol monopoly. *Journal of*

Studies on Alcohol and Drugs, 76(4), 628-634.

<http://www.jsad.com/doi/abs/10.15288/jsad.2015.76.628>

** Large and inverse associations were reported between average minimum alcohol pricing and some crimes. The estimates have wide confidence intervals. The direction of the relationship is more certain than its estimated level.

9. Stockwell, T., Zhao, J., Sherk, A., Callaghan, R., Macdonald, S., & Gatley, J. (2017). Assessing the impacts of Saskatchewan's minimum alcohol pricing regulations on alcohol-related crime. *Drug and Alcohol Review*, 36, 492–501. <http://onlinelibrary.wiley.com/doi/10.1111/dar.12471/epdf>

** Some short-term and delayed impacts detected on Saskatchewan crime rates following the major overhaul in minimum pricing in that province in 2010.

10. Thompson, K., Stockwell, T., Wettlaufer, A., Giesbrecht, N. & Thomas, G. (2017). Minimum Alcohol Pricing Policies in Practice: A Critical Examination of Implementation in Canada. *Journal of Public Health Policy*, 38 (1): 39-57. <https://link.springer.com/content/pdf/10.1057%2Fs41271-016-0051-y.pdf>

** This paper describes the diversity of how minimum pricing is applied in liquor stores and bars across Canada's 10 provinces. Wide differences are reported in terms of how comprehensive the minimum prices are, whether they are applied to bars and/or liquor stores, the level that is set and whether they are indexed to the cost of living.

11. Zhao, J., & Stockwell, T. (2017). The impacts of minimum alcohol pricing on alcohol attributable morbidity in regions of British Columbia, Canada with low, medium and high mean family income. *Addiction*, 112, 1942-1951. <http://onlinelibrary.wiley.com/doi/10.1111/add.13902/epdf>

** This paper explores relationships previously reported in study #6 above for different regions of British Columbia divided according to average household income. Larger and more significant associations are mostly found for lower income regions. It is concluded that minimum pricing as an effective method for reducing health inequalities.

Please do not hesitate to ask if you would like more information discussion of these published findings.

Sincerely,



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Professor, Department of Psychology
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