



## Summary

- Publication in the journal 'Addiction' (7.02.2013) of a study in British Columbia 2002 to 2009 (Canada) claims a relationship between minimum alcohol prices, outlet densities and alcohol attributable deaths.
- **Academics claims that, between 2002 and 2009, a 10% increase in the average minimum price for all alcoholic drinks was associated with a 32% reduction in alcohol-related deaths.**
- Their paper states that the alcohol related deaths were estimated based on population attributable fractions (PAFs) for alcohol rather than official hospital records.
- However, when looking at official Canadian Government statistics, the number of deaths went up from 1,073 in 2002 to 1,169 in 2009. The number actually rose in most years and no year saw a lower total than in 2002.

## Our arguments

**IMPORTANT NOTE:** These are our initial reactions to a document we have just seen and for which we need more time to look at methodology, conclusions, etc.

A number of EU media have reported on this research in Canada by Tim Stockwell, probably given the current debate in Scotland and UK. However, Canada is not a comparable example, and we maintain our stance that there is no simple link between price/consumption and harm. Our arguments are:

### **Minimum Unit Pricing has never been tried**

Reducing alcohol related harm through a minimum unit price has never been successfully attempted anywhere else in the world. The evidence used to support the price policy instrument is simply a projection based on the Sheffield model. The University of Sheffield model was carried out 5 years ago and has been heavily criticised, with the Adam Smith Institute recently concluding *"that predictions based on the Sheffield Alcohol Policy Model are entirely speculative."*

### **Canada is not a comparable example**

Rules governing the sale of alcohol in Canada were born out of prohibition, with provinces given a monopoly on alcohol sold in separate government shops at a floor price (so not as planned in UK - a MUP per unit of alcohol).



**Information provided by the researchers is not in line with official statistics**

- The claims made by the Canadian researchers are not supported by official data from Statistics Canada which show alcohol-related deaths in British Columbia rising by 9% in the period, not falling (published by the University of Tim Stockwell...)

Indeed, the last line about British Columbia (BC) shows an increase in the number of deaths attributed to alcohol from 1,073 people in 2002 to 1,169 people in 2009 (see table below). These are estimated deaths based on population attributable fractions (PAFs) for alcohol.

Number of deaths attributable to alcohol, 2002 - 2009

Alcohol	2002	2003	2004	2005	2006	2007	2008	2009
Interior	258	267	285	296	290	307	295	305
Fraser	260	291	294	318	320	330	317	271
Vancouver	235	223	236	255	232	233	231	220
Vancouver Island	206	217	235	259	270	290	307	273
Northern	113	105	105	95	93	113	116	98
BC	1073	1103	1158	1224	1205	1276	1268	1169

<sup>[i]</sup> <http://carbc.ca/LinkClick.aspx?fileticket=1fGqngWY6SQ%3d&tabid=90&mid=775>

- Death directly attributed to alcohol

The number of deaths **directly** attributed to alcohol misuse also shows an increase for BC, from 312 in 2003 to 443 in 2011:

Death directly attributed to alcohol in British Columbia ( <a href="http://www.vs.gov.bc.ca/stats/annual">http://www.vs.gov.bc.ca/stats/annual</a> )										
	1999-2003	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of death Directly Related to Alcohol	1618	312	350	362	383	447	448	387	410	443

([www.vs.gov.bc.ca/stats/annual](http://www.vs.gov.bc.ca/stats/annual))

- The number of hospitalizations attributed to alcohol went up in that same period (see last line on British Columbia (BC))

Alcohol	2002	2003	2004	2005	2006	2007	2008	2009
Interior	3518	3908	3992	4170	4321	4567	4741	4691
Fraser	3702	4094	4158	4597	4862	4945	5250	5556
Vancouver Coastal	2810	3020	3142	3258	3420	3422	3670	3756
Vancouver Island	3137	3351	3470	3745	3722	3863	4053	4083
Northern	1700	1821	1931	1945	1995	2099	2072	2066
BC	15038	16351	16875	17942	18611	19204	20153	20533

Source: <http://carbc.ca/LinkClick.aspx?fileticket=1fGqngWY6SQ%3d&tabid=90&mid=775>

- Also alcohol mortality and morbidity rates per gender and age groups appear to be in conflict with the latest findings published by Stockwell et al.  
*Mortality and Morbidity Age-specific and Crude Rates (per 100,000) by Gender for Alcohol, BC, 2002-2008 (same source as above)*



Alcohol mortality		0-14	15-24	25-44	45-64	65+	crude rate
2002	Male	1,36	23,03	29,03	49,33	111,97	38,37
	Female	0,86	5,51	6,37	16,29	51,33	14,41
	Total	1,12	14,49	17,65	32,73	78,49	26,29
2003	Male	1,37	26,80	27,00	44,90	117,58	38,19
	Female	0,58	3,62	7,22	16,07	49,12	14,13
	Total	0,99	15,51	17,07	30,39	79,88	26,06
2004	Male	1,11	22,02	27,37	55,09	109,19	39,58
	Female	0,88	3,92	6,75	17,28	52,38	15,00
	Total	1,00	13,20	17,03	36,03	78,03	27,19
2005	Male	0,56	24,38	29,56	53,10	117,48	41,32
	Female	0,30	4,22	7,54	17,21	52,37	15,27
	Total	0,43	14,56	18,52	34,99	81,86	28,19
2006	Male	1,12	22,53	25,93	52,39	120,37	40,66
	Female	0,89	4,17	5,92	16,64	49,95	14,51
	Total	1,01	13,57	15,89	34,35	81,94	27,48
2007	Male	1,69	21,03	24,54	51,81	116,12	39,82
	Female	0,30	4,48	6,86	18,71	55,62	16,30
	Total	1,02	12,95	15,67	35,10	83,20	27,97
2008	Male	1,13	17,02	24,12	55,64	118,84	40,99
	Female	0,60	4,91	6,04	18,43	50,08	15,52
	Total	0,87	11,17	15,02	36,79	81,48	28,15

Alcohol morbidity		0-14	15-24	25-44	45-64	65+	crude rate
2002	Male	81,62	336,43	387,40	636,67	1075,11	471,36
	Female	40,83	169,20	232,97	389,35	568,89	280,93
	Total	61,79	254,92	309,87	512,41	795,59	375,37
2003	Male	78,29	355,25	403,87	660,66	1088,27	489,99
	Female	44,47	167,23	241,69	396,58	566,45	287,49
	Total	61,86	263,69	322,46	527,77	800,97	387,91
2004	Male	84,57	350,00	407,18	692,30	1114,71	506,73
	Female	42,81	167,85	231,27	401,82	587,33	290,61
	Total	64,27	261,22	318,91	545,83	825,39	397,76
2005	Male	86,55	339,35	422,95	733,04	1156,68	530,06
	Female	45,54	162,85	228,88	415,57	598,52	297,00
	Total	66,63	253,38	325,60	572,86	851,33	412,58
2006	Male	86,71	356,22	431,22	735,32	1172,19	541,63
	Female	49,37	155,38	234,10	420,82	614,60	304,06
	Total	68,58	258,20	332,33	576,60	867,91	421,85
2007	Male	89,92	339,80	445,67	774,23	1194,18	561,74
	Female	51,68	164,10	235,18	426,54	609,16	308,69
	Total	71,36	254,05	340,12	598,70	875,83	434,18
2008	Male	88,09	342,04	481,48	820,32	1197,40	589,78
	Female	52,14	171,01	258,47	452,57	610,74	327,01
	Total	70,70	259,44	369,28	634,02	878,61	457,29

- Last argument: it is somehow strange to say that minimum prices were related to wholly chronic alcohol attributable deaths after 2 to 3 years (see Stockwell et al's conclusion), because a chronic disease takes a longer period to become apparent, e.g. chronic alcoholic liver disease may be the result of heavy regular drinking for at least 10 or in fact more than 10 years.



- In conclusion, this is a complex study based on modelling which paints a confusing picture that does not seem to reflect official statistics. This reinforces our position that there is not a simple link between alcohol price, consumption and harm. Consumption is more likely to be related to cultural factors and increases in price do not impact on these significantly.

### Background information: additional publications on same issue

- Zhao J; Stockwell T; Martin G; et al, "The relationship between minimum alcohol prices, outlet densities and alcohol attributable deaths in British Columbia 2002 to 2009. *Addiction* 2013; - Press Release on 7.02.2013: [www.addictionjournal.org](http://www.addictionjournal.org)
- Treno AJ; Ponicki WR; Stockwell T; Macdonald S; Gruenewald PJ; Zhao J; Martin G; Greer A, 'Alcohol outlet densities and alcohol price: the British Columbia experiment in the partial privatization of alcohol sales off-premise', *Alcoholism: Clinical and Experimental Research*, Published early online **14 January 2013** [R097254]
- Stockwell T; Zhao J; Giesbrecht N; Macdonald S; Thomas G; Wettlaufer A, 'The raising of minimum alcohol prices in Saskatchewan, Canada: impacts on consumption and implications for public health', *American Journal of Public Health*, Vol 102, **No 12, 2012**, ppe103-e110 [R095325]
- Stockwell T; Auld MC; Zhao J; Martin G, 'Does minimum pricing reduce alcohol consumption? The experience of a Canadian province', *Addiction*, Vol 107, **No 5, 2012**, pp912-920 [R089962]
- Giesbrecht N; Wettlaufer A; Walker E; Ialomiteanu A; Stockwell T, 'Beer, wine and distilled spirits in Ontario: a comparison of recent policies, regulations and practices', *Nordic Studies on Alcohol and Drugs*, Vol 29, **No 1, 2012**, pp79-102 [R091846]
- Hill McManus D; Brennan A; Stockwell T; Giesbrecht N; Thomas G; Zhao J; Martin G; Wettlaufer A, 'Model-based appraisal of alcohol minimum pricing in Ontario and British Columbia: a Canadian adaptation of the Sheffield Alcohol Policy Model Version 2', Sheffield: SCHARR, University of Sheffield, December 2012, 158pp [BG003598]

**Canada in the context of the MUP discussion in UK:** read WSTA paper at [http://spirits.eu/page.php?id=39&parent\\_id=8](http://spirits.eu/page.php?id=39&parent_id=8)