Testing the impact of local alcohol licensing policies on reported crime rates in England

De Vocht F[1,2], Heron J[1,2], Campbell R[1,2], Egan M[1,3], Mooney J[4], Angus C[1,5], Brennan A[1,5], Hickman M[1,2].

[1] NIHR School for Public Health Research (SPHR)

[2] School of Social and Community Medicine, University of Bristol, Bristol, UK

[3] Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK

4 Health Sciences and Well-being Research Group, University of Sunderland, Sunderland, UK

[5] ScHARR, School of Health and Related Research, University of Sheffield, Sheffield, UK

Online Supplementary Material

Table. Growth models. 2009-2014 *a priori* selected outcomes related to "alcohol crime environments".

Parameter	shoplifting (SE)		Possession of a weapon (SE)		Drug offenses (SE)		Domestic burglary (SE)	
	Linear trend	Quadratic trend	Linear trend	Quadratic trend	Quadratic trend	Quadratic trend	Linear trend	Quadratic trend
Baseline (year 2009)	-0.786 (0.162)		-0401 (0.152)		0.556 (0.157)		0.982 (0.164)	
	P<0.001		P<0.001		P<0.001		P<0.001	
Trend (2009-2014)	-0.142 (0.027)	0.008 (0.002)	-0.526 (0.045)	0.042 (0.004)	-0.044 (0.035)	0.008 (0.003)	0.002 (0.034)	-0.009 (0.003)
	P<0.001	P<0.001	P<0.001	P<0.001	P=0.246	P=0.010	P=0.872	P=0.002
Effect on intercept								
No policy	ref		ref		ref		ref	
Low policy	-0.073 (0.109)		-0.171 (0.103)		-0.165 (0.106)		**-0.245 (0.111)**	
Medium	**0.148 (0.088)**		0.025 (0.083)		0.020 (0.085)		0.115 (0.090)	
High policy	**0.375 (0.117)**		**0.570 (0.110)**		**0.528 (0.113)**		**0.434 (0.119)**	
	P=0.004		P<0.001		P<0.001		P<0.001	
Deprivation at baseline	3.278 (0.638)		5.832 (0.599)		5.739 (0.616)		-4.961 (0.646)	
	P<0.001		P<0.001		P<0.001		P<0.001	
Population at baseline	-0.20 (0.038)		-0.298 (0.036)		-0.171 (0.037)		-0.175 (0.038)	
	P<0.001		P<0.001		P<0.001		P<0.001	
Outlet density at baseline	0.002 (0.002)		0.001 (0.001)		0.010 (0.002)		0.000 (0.002)	
	P=0.285		P=0.715		P<0.001		P=0.799	
Alcohol-related hospital admissions at baseline	-0.000 (0.001)		-0.004 (0.001)		-0.006 (0.001)		-0.002 (0.001)	
	P=0.895		P=0.001		P<0.001		P=0.119	
Effects on slope								
No policy	ref	ref	ref	ref	ref	ref	ref	ref
Low policy	**0.062 (0.018)**	**-0.006 (0.002)**	**0.104 (0.030)**	**-0.105 (0.003)**	**0.087 (0.023)**	**-0.008 (0.002)**	**0.095 (0.023)**	**-0.008 (0.002)**
Medium	-0.011 (0.015)	0.001 (0.001)	0.027 (0.024)	-0.003 (0.002)	0.019 (0.019)	-0.002 (0.002)	0.003 (0.019)	-0.000 (0.002)
High policy	**-0.079 (0.020)**	**0.007 (0.002)**	**-0.166 (0.032)**	**0.014 (0.003)**	**-0.094 (0.025)**	**0.008 (0.002)**	**-0.083 (0.025)**	**0.007 (0.002)**
	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001
Deprivation	-0.700 (0.106)	0.069 (0.009)	-0.773 (0.175)	0.080 (0.017)	-1.066 (0.136)	0.092 (0.012)	-0.682 (0.135)	0.054 (0.012)
	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001
Population at baseline	0.071 (0.006)	-0.006 (0.001)	0.112 (0.010)	-0.011 (0.001)	0.076 (0.008)	-0.008 (0.001)	0.118 (0.008)	-0.012 (0.001)
	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001
Outlet density at baseline	0.001 (0.000)	-0.000 (0.000)	0.001 (0.000)	-0.000 (0.000)	-0.001 (0.000)	0.000 (0.000)	0.001 (0.000)	-0.000 (0.000)
	P<0.001	P<0.001	P=0.003	P=0.003	P=0.002	P=0.042	P=0.002	P=0.002
Alcohol-related hospital admissions at baseline	0.000 (0.000)	-0.000 (0.000)	0.001 (0.000)	-0.000 (0.000)	0.002 (0.000)	-0.000 (0.000)	-0.001 (0.000)	0.000 (0.000)
	P=0.049	P=0.797	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001

Variance estimates	estimates	estimates	estimates	estimates
Intercept	0.317	0.194	0.271	0.305
Slope	0.002	0.003	0.004	0.004
covariance	-0.63	-0.63	-0.75	-0.66
Residual	0.013	0.041	0.021	0.021
BIC	-7,264	-127	-4,272	-4,274
Explained variance	95.9%	89.0%	93.6%	94.5%