Table S1. Mean outlet density by deprivation and year with postcode deprivation fixed at baseline (2003) level.

Outlet Type by Deprivation Quintile		Mean Outlet Density (IQR) 2003	2007	2010	2013	Change from 2003–2013 (IQR)	Mean % Change from 2003–2013
On-trade	**Q1 (most deprived)**	40.2 (10–44)	38.9 (9–42)	36.6 (9–37)	34.6 (7–34)	−5.6 (−9–−1)	-14.0%
	Q2	31.9 (7–31)	31.7 (7–30)	30.4 (6–28)	29.5 (6–26)	−2.4 (−5–0)	-7.6%
	Q3	18.8 (3–20)	18.8 (3–19)	18.3 (3–18)	17.8 (2–17)	−1 (−3–0)	-5.4%
	Q4	11.5 (2–13)	11.4 (2–13)	11 (2–12)	10.7 (2–11)	−0.8 (−2–0)	-7.2%
	Q5 (least deprived)	9.3 (3–11)	9.3 (3–11)	9 (3–11)	8.8 (2–10)	−0.5 (−1–0)	-5.4%
Off-trade	**Q1 (most deprived)**	12.7 (6–18)	14.3 (7–19)	15.4 (7–21)	17.1 (8–23)	4.4 (1–6)	34.8%
	Q2	9.4 (3–13)	10.9 (4–15)	11.8 (5–16)	13 (5–17)	3.6 (1–5)	37.9%
	Q3	5.8 (1–8)	6.7 (1–9)	7.2 (1–10)	7.9 (1–11)	2.1 (0–3)	36.3%
	Q4	3.8 (0–5)	4.5 (0–7)	4.8 (0–7)	5.2 (0–8)	1.4 (0–2)	36.6%
	Q5 (least deprived)	3.4 (1–5)	4 (1–6)	4.3 (1–6)	4.6 (1–7)	1.2 (0–2)	35.1%

Table S2. Hierarchical growth model results: effects of deprivation on logged outlet density.

Model Covariate and Level		Model Estimates (Standard Errors)					
		Pubs, Bars & Nightclubs	**Restaurants**	**Other on-Trade**	**Supermarkets**	**Convenience Stores**	**Other off-Trade**
Baseline (2003) logged outlet density (intercept)		1.225 (0.215) *p < 0.0001*	−2.213 (0.503) *p < 0.0001*	0.824 (0.236) *p < 0.0001*	-3.135 (0.182) *p < 0.0001*	−1.584 (0.266) *p < 0.0001*	−0.354 (0.34) *p = 0.298*
Effect on intercept	**IMD Q1 (most deprived)**	ref.	ref.	ref.	ref.	ref.	ref.
	IMD Q2	−0.201 (0.003)	−0.239 (0.006)	−0.284 (0.004)	−0.256 (0.005)	−0.288 (0.006)	−0.27 (0.004)
	IMD Q3	−0.381 (0.003)	−0.469 (0.007)	−0.575 (0.005)	−0.496 (0.005)	−0.514 (0.006)	−0.494 (0.005)
	IMD Q4	−0.472 (0.003)	−0.692 (0.007)	−0.764 (0.005)	−0.654 (0.006)	−0.699 (0.006)	−0.651 (0.005)
	IMD Q5 (least deprived)	−0.509 (0.004) *p < 0.0001*	−0.789 (0.008) *p < 0.0001*	−0.78 (0.005) *p < 0.0001*	−0.758 (0.006) *p < 0.0001*	−0.83 (0.007) *p < 0.0001*	-0.681 (0.006) *p < 0.0001*
Slope (change in logged outlet density per year from baseline (2003))		−0.037 (0) *p < 0.0001*	0.018 (0.001) *p < 0.0001*	-0.05 (0) *p < 0.0001*	0.069 (0) *p < 0.0001*	0.145 (0) *p < 0.0001*	0.032 (0) *p < 0.0001*
Effect on slope	**IMD Q1 (most deprived)**	ref.	ref.	ref.	ref.	ref.	ref.
	IMD Q2	0.012 (0)	0 (0.001)	0.007 (0)	−0.006 (0.001)	−0.013 (0.001)	−0.001 (0)
	IMD Q3	0.021 (0)	−0.004 (0.001)	0.014 (0)	−0.016 (0.001)	−0.036 (0.001)	−0.006 (0)
	IMD Q4	0.026 (0)	0.009 (0.001)	0.021 (0)	−0.02 (0.001)	−0.036 (0.001)	−0.008 (0)
	IMD Q5 (least deprived)	0.027 (0) *p < 0.0001*	0.021 (0.001) *p < 0.0001*	0.016 (0) *p < 0.0001*	−0.021 (0.001) *p < 0.0001*	−0.01 (0.001) *p < 0.0001*	−0.014 (0) *p < 0.0001*
Region	**Variance (intercept)**	0.42	2.28	0.50	0.30	0.64	1.04
Postcode	**Variance (intercept)**	6.81	14.33	9.47	11.97	11.81	11.68
	Variance (slope)	0.01	0.04	0.02	0.02	0.03	0.02
	Covariance(intercept, slope)	−0.02	−0.18	−0.08	−0.03	−0.24	−0.14
Variance (residual)		0.24	1.32	0.55	0.85	0.99	0.55