

**Supplementary Table 1. Annual incidence of newly recorded epilepsy in children aged 0-7 between 2001-2008 by gender, age and deprivation quintile using indicator 1 (repeat AED prescriptions).**

Variable		Number of Children	Person Years at Risk (PYAR)	Incidence per 100,000 PYAR (95% CI)		Crude Incidence Rate Ratio (p-value)		Adjusted* Incidence Rate Ratio (p-value)	
Gender	Male	413	536,519	77.0	(69.7 - 84.8)	Baseline	-	Baseline	-
	Female	327	511,481	63.9	(57.2 - 71.3)	0.83	(0.012)	0.83	(0.012)
Age	0	285	222,644	128.0	(113.6 - 143.8)				
	1	124	186,935	66.3	(55.2 - 79.1)				
	2	93	157,654	59.0	(47.6 - 72.3)				
	3	67	133,877	50.0	(38.8 - 63.6)				
	4	53	112,999	46.9	(35.1 - 61.4)				
	5	49	94,122	52.1	(38.5 - 68.8)				
	6	34	78,229	43.5	(30.1 - 60.7)				
	7	35	61,539	56.9	(39.6 - 79.1)				
	<1					Baseline	-	Baseline	-
	1-7					0.43	(<0.001)	0.44	(<0.001)
Period	2001	77	78,603	98.0	(77.3 - 122.4)				
	2002	81	95,407	84.9	(67.4 - 105.5)				
	2003	83	110,459	75.1	(59.8 - 93.1)				
	2004	93	125,875	73.9	(59.6 - 90.5)				
	2005	83	141,262	58.8	(46.8 - 72.8)				
	2006	96	155,078	61.9	(50.1 - 75.6)				
	2007	110	166,261	66.2	(54.4 - 79.7)				
	2008	117	175,055	66.8	(55.3 - 80.1)				

	Linear Trend					0.95	(0.002)	0.96	(0.008)
Deprivation Quintile**	Q1	169	277,808	60.8	(52.0 - 70.7)	Baseline	-	Baseline	-
	Q2	129	210,662	61.2	(51.1 - 72.8)	1.01	(0.955)	1.00	(0.976)
	Q3	179	212,066	84.4	(72.5 - 97.7)	1.39	(0.002)	1.36	(0.004)
	Q4	157	198,210	79.2	(67.3 - 92.6)	1.30	(0.017)	1.26	(0.035)
	Q5	106	149,253	71.0	(58.1 - 85.9)	1.17	(0.211)	1.13	(0.320)

\* Incidence Rate Ratios are adjusted for gender, age, period and deprivation quintile.

\*\* Deprivation quintile measured using Townsend score - ranging from Q1 (least deprived) to Q5 (most deprived).

**Supplementary Table 2. Annual incidence of newly recorded epilepsy in children aged 0-7 between 2001-2008 by gender, age and deprivation quintile using indicator 2 (repeat AED prescriptions or an epilepsy diagnosis).**

Variable		Number of Children	Person Years at Risk (PYAR)	Incidence per 100,000 PYAR (95% CI)		Crude Incidence Rate Ratio (p-value)		Adjusted* Incidence Rate Ratio (p-value)	
Gender	Male	529	536,087	98.7	(90.4 - 107.5)	Baseline	-	Baseline	-
	Female	405	511,136	79.2	(71.7 - 87.3)	0.80	(0.001)	0.80	(0.001)
Age	0	361	222,599	162.2	(145.9 - 179.8)				
	1	159	186,850	85.1	(72.4 - 99.4)				
	2	110	157,554	69.8	(57.4 - 84.1)				
	3	90	133,773	67.3	(54.1 - 82.7)				
	4	68	112,889	60.2	(46.8 - 76.4)				
	5	62	94,002	66.0	(50.6 - 84.6)				
	6	41	78,116	52.5	(37.7 - 71.2)				
	7	43	61,441	70.0	(50.6 - 94.3)				
	<1 1-7					Baseline 0.43	- (<0.001)	Baseline 0.44	- (<0.001)
Period	2001	100	78,532	127.3	(103.6 - 154.9)				
	2002	110	95,318	115.4	(94.8 - 139.1)				
	2003	113	110,359	102.4	(84.4 - 123.1)				
	2004	113	125,771	89.8	(74.0 - 108.0)				
	2005	108	141,158	76.5	(62.8 - 92.4)				
	2006	111	154,977	71.6	(58.9 - 86.3)				
	2007	137	166,159	82.5	(69.2 - 97.5)				
	2008	142	174,950	81.2	(68.4 - 95.7)				

	Linear Trend					0.93	(<0.001)	0.94	(<0.001)
Deprivation	Q1	201	277,655	72.4	(62.7 - 83.1)	Baseline	-	Baseline	-
Quintile**	Q2	159	210,522	75.5	(64.2 - 88.2)	1.04	(0.690)	1.03	(0.750)
	Q3	226	211,881	106.7	(93.2 - 121.5)	1.47	(<0.001)	1.45	(<0.001)
	Q4	205	198,030	103.5	(89.8 - 118.7)	1.43	(<0.001)	1.39	(0.001)
	Q5	143	149,135	95.9	(80.8 - 113.0)	1.32	(0.010)	1.29	(0.021)

\* Incidence Rate Ratios are adjusted for gender, age, period and deprivation quintile.

\*\* Deprivation quintile measured using Townsend score - ranging from Q1 (least deprived) to Q5 (most deprived).