



## Key Stage 1 attainment - Doncaster

### Aims

Doncaster MBC and Doncaster PCT, using neighbourhood renewal funding, commissioned Mayhew Associates (MA) to undertake a detailed assessment of population and deprivation in Doncaster. Based on administrative data sources, MA *nkm techniques* were used to estimate the Doncaster population. Using the data base created, this case study identifies sub-groups most at risk of achieving lower quartile scores at Key Stage 1 (KS1 LQ). KS 1 tests are sat at age 7 by all pupils in all state schools. By lower quartile we mean that after aggregating the scores for each test and then ranking the combined scores from high to low we identified those in the lower quartile of results and used this as our 'risk outcome'. Understanding the kinds of factors that may be associated with or contribute to a child being in the lower quartile can help to tailor interventions to particular schools and children. Our starting point was all children sitting KS1 in 2006.

### What we did

In partnership with the PCT and local authority, we obtained and linked data from each agency to the Local Property Gazetteer. We then risk assessed 2006 KS1 pupils using the following socio-demographic risk factors: single parent household, social housing tenure, English as a second language and Special Educational Needs (SEN) to see which were most linked to being in the lower quartile score (see table).

*Tailoring services to local needs*

Row	number in category	single parent household	living in social housing	English as second language	SEN	% in KS1 LQ	lower confidence limit	upper confidence limit
1	3		Y	Y	Y	100.0	36.8	100.0
2	2	Y		Y	Y	100.0	22.4	100.0
3	84	Y	Y		Y	82.1	72.3	89.6
4	112		Y		Y	76.8	67.9	84.2
5	98	Y			Y	75.5	65.8	83.6
6	331				Y	72.5	67.4	77.2
7	8			Y	Y	62.5	24.5	91.5
8	10	Y		Y		40.0	12.2	73.8
9	15		Y	Y		33.3	11.8	61.6
10	74			Y		27.0	17.4	38.6
11	238		Y			18.5	13.8	24.0
12	186	Y	Y			17.7	12.5	24.0
13	389	Y				14.1	10.8	18.0
14	1650					11.4	9.9	13.0
15	0	Y	Y	Y				
16	0	Y	Y	Y	Y			
total	3200	769	638	112	638	25.9	24.4	27.4

*Risk table demonstrating relative risk factors for KS1 LQ:  
Base: all KS1 pupils 2006*

### Outputs

Our logistic regression model confirmed that each of the factors was statistically significant and each had the tendency to increase the odds of falling into the lower quartile. Odds ranged from 1.2 times more for children living in single parent households to 2.6 times where English was a child's second language. However, SEN stood out as the most important factor, increasing the odds of being in the lower quartile 18.9 times. The presence of SEN is associated with an average of 62.5% to 100% of pupils being in the lower quartile, as shown in rows 1 to 7 in the table, with 331 pupils exposed to the average of 72.5% based on the presence of just one risk factor, SEN (row 6). Note that the numbers of pupils falling into the highest risk groups are small and so the associated confidence limits as to the risk of a LQ outcome are wider.

wider as a result.