



# Childhood Obesity in Doncaster

*Tailoring services to local needs*

## Aims

Childhood obesity is on the rise in the UK and is linked to the increase in unhealthy diets and the reduction in exercise among children. However, like many health problems, obesity is thought to be influenced by many different socio-economic, environmental and behavioural factors. This study aimed to analyse local risk factors for childhood obesity.

## What we did

We used *nkm* matching techniques to link data from school survey data on children's body mass index (BMI) with health and socio-economic data from other local administrative data sets. From these matched data we were able to identify factors significantly associated with obesity. Using statistical models we studied the influence of:

- Gender
- Breastfeeding history
- Single Parent households
- Eligibility for Free School Meals

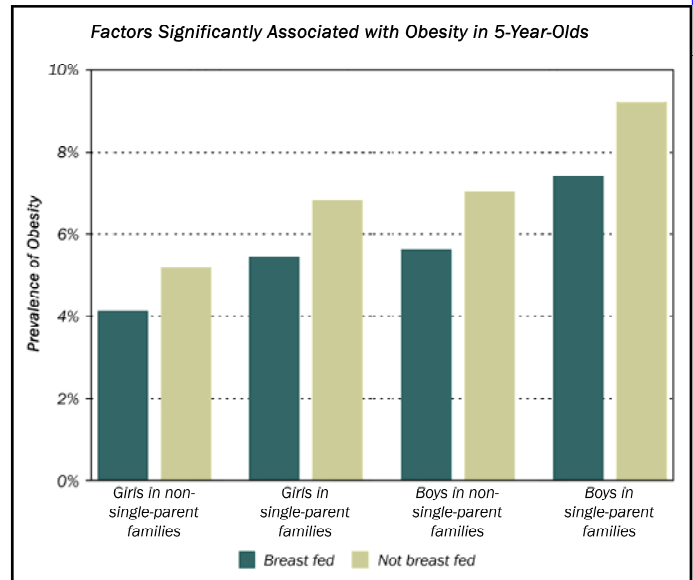
## Results

The analysis showed significant associations between obesity and gender, breastfeeding history and single-parent status, with no significant link with eligibility for free school meals.

We used data from the school survey of children in Reception

(age 4-5) for 2004/5, 2005/6 and 2006/7. We had 6,298 children with valid data for all the factors. The odds of being obese were 38% higher for boys than for girls and 34% higher for children in single-adult households than for other children. However, the odds of being obese were 21% lower for children who had been breast fed (at least initially in hospital) than for those who had not. These factors from the statistical model are illustrated in the graph above. The prevalence varies from 4% to 9%, depending on the combination of factors. The table shows the numbers of children in the study with each combination of factors and the actual prevalence of obesity in each group, which are similar to the results of the statistical model.

The results reinforce the importance of breast feeding, and may be used, along with emerging evidence of effective interventions, to help target future initiatives to tackle the obesity epidemic.



Row	male	breast fed as a baby	single parent household	number in category	% obese	95% confidence interval
1	Y		Y	485	9.1	(6.7, 12.0)
2	Y	Y	Y	270	8.5	(5.5, 12.5)
3			Y	460	6.7	(4.6, 9.4)
4	Y			1,285	6.5	(5.2, 7.9)
5	Y	Y		1,200	6.1	(4.8, 7.6)
6				1,277	5.9	(4.6, 7.3)
7		Y	Y	271	4.8	(2.6, 8.1)
8		Y		1,050	3.5	(2.5, 4.8)
total	1,423	2,556	715	6,298	6.0	(5.4, 6.6)

*Risk factor segmentation of Doncaster five year-olds according to obesity. Base: all children surveyed with a valid height and weight measurement between 2004/5 and 2006/7*