

Measuring Childhood Obesity in the North West

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Dataset Facts

- Data are collected from Reception class (age 4-5) and Year 6 (age 10-11) pupils
- Items collated nationally are: gender, date of birth, school name, school year, school postcode, school LA code, date of measurement, height (cm) and weight (kg)
- NWPHO supported the collection and collation of postcode of residence for each child in the North West to allow more detailed analysis
- Data are recorded on the National Child Obesity Database (NCOD) via a local Excel spreadsheet template (on UNIFY website)
- NCOD complements the national tracking conducted via the Health Survey for England (HSE)

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Key Messages

- This report provides analysis on childhood overweight and obesity in the North West. PCTs providing NWPHO with data linked to child postcode has enabled a more detailed picture of the level of the problem in specific population groups to be produced.
- This analysis can help with the development of school based interventions, but should also help with the targeting of health messages to parents on this key public health topic.
- Further analysis will be provided in a forthcoming NWPHO Synthesis report on Body Mass Index (BMI), due for publication in late spring.
- In the future years, PCTs should aim to improve response rates and to collect postcode of residence to help develop a wider understanding of local patterns of childhood BMI.

Introduction

In January 2006, a national, annual weighing and measuring scheme to record height and weight of primary school¹ pupils in Reception class (Year R) and Year 6 was introduced. This local height and weight data is held on the National Childhood Obesity Database (NCOD), to allow schools, Primary Care Trusts (PCTs), Local Authorities (LAs) and other partners to plan and target resources and interventions, as well as track progress towards the PSA target for obesity. The current PSA is to:

“...halt the year-on-year rise in obesity among children aged under 11 by 2010 in the context of a broader strategy to tackle obesity in the population as a whole.”

In NCOD, BMI is automatically calculated for each child, to categorise them as either normal, overweight (not obese) or obese based on the 85th and 95th centile of the UK 1990 Reference Population for that age and gender².

National Picture

In December 2006, the first NCOD annual report was released, providing analysis of 2005/06 data. Measurements were taken from over half a million children (48% of those eligible), with response rates varying greatly across the country. Figures revealed that levels of obesity in Year R and Year 6 in the North West (10.0% and 17.4% respectively) were almost identical to the levels in England (10.0% and 17.3% respectively). When split by sex, NCOD figures are slightly lower than those of the 2001/02 HSE, particularly for Year R (Table 1). Questions over the reliability of this data have been raised due to a number of issues that arose with the data collection process. The analysis supported evidence of higher rates of opting out of the measurement process amongst heavier children.

Table 1: Comparison of figures from HSE 2001-02 and NCOD 2006 for prevalence of overweight and obesity in children by sex and age group.

Dataset	Age Group	Girls		Boys	
		Overweight	Obese	Overweight	Obese
HSE	Age 4 & 5	12.6%	11.1%	16.2%	13.8%
	Age 10 & 11	16.5%	18.2%	14.3%	20.0%
NCOD	Year R	12.3%	9.2%	13.4%	10.7%
	Year 6	13.8%	15.4%	13.8%	18.9%

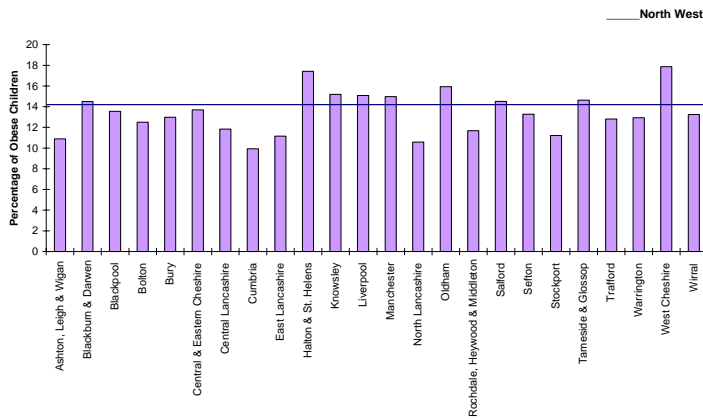
Regional Picture

There were 98,300 responses collected across schools in the NW SHA for the 2005/06 NCOD. Figure 2 shows the results by new PCT in the NW. The PCTs with the highest percentage of obese children were West Cheshire (17.87%), Halton & St Helens (17.43%) and Oldham (15.94%), whilst the PCTs with the lowest percentage of obese children were Cumbria (9.94%), North Lancashire (10.58%) and Ashton, Leigh & Wigan (10.89%) (Fig 1).

1. Community, Foundation, Voluntary Aided and Voluntary Controlled schools.

2. Department of Health (2006) Measuring Childhood Obesity – Guidance to PCTs on Data Handling. London, DH.

Figure 1: Percentage of obese children in North West PCTs, 2005/06.



Of the 24 PCTs in the North West, nine provided data with the child's postcode: Blackpool, Cumbria, East Lancs, Fylde & Wyre, Knowsley, Morecambe, West Lancs, Preston and Wirral with Liverpool providing record level data without a postcode. The postcode information has allowed more in depth analysis by Index of Multiple Deprivation (IMD 2004) and geodemographic classification (P² People & Places³). The sample of PCTs providing data is fairly representative of the mix of deprivation, urbanity and rurality within the region. Overall, the sample BMI and response rates are slightly lower than the regional picture from the national reporting. The cut off used for overweight and obese are the same as those used in the NCOD report.

There appears to be a relationship between deprivation (national quintile for IMD 2004) and overweight/obesity across children in Year R and Year 6, although the relationship is clearer in Year 6 (Figs 2 & 3). In Year R, levels of overweight and obesity are 1.30 times higher in the most deprived quintile than in the most affluent quintile. The gap is slightly larger for obesity alone, with levels 1.50 times greater in the most deprived quintile (Fig 2). The picture is similar in Year 6, with levels of overweight and obesity 1.14 times higher in the most deprived quintile compared to the most affluent quintile. Again, the gap is slightly higher for obesity, with levels being 1.38 times greater in the most deprived quintile (Fig 4).

Figure 2: Year R overweight and obesity by IMD 2004

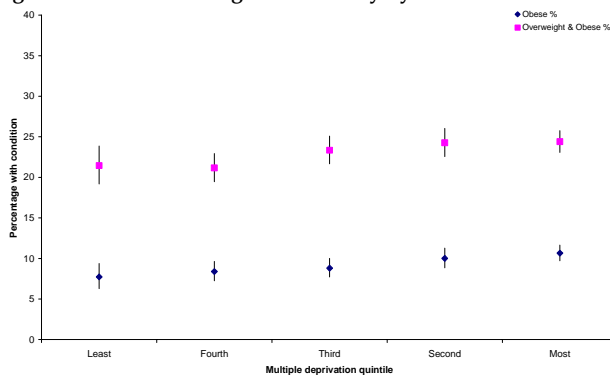
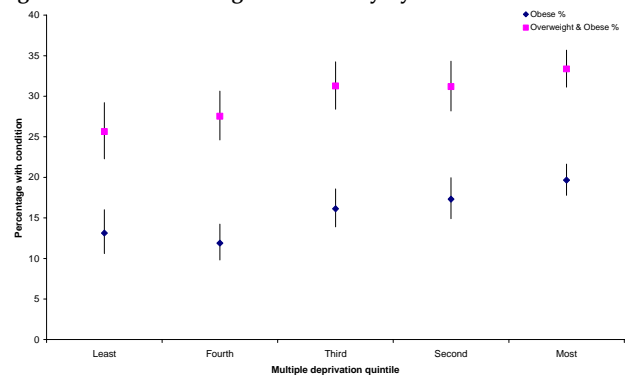


Figure 3: Year 6 overweight and obesity by IMD 2004



For the Geodemographic analysis, each P² category has been ranked by the income domain of IMD 2004, with level of deprivation increasing from left to right ('Mature Oaks' being the most affluent and 'Urban Challenge' the most deprived). In some of the P² categories, particularly 'Qualified Metropolitan', the number of children weighed is low thus impacting on the width of the confidence intervals. For clarity here, the confidence intervals have been omitted but can be viewed on the web supplement (see below). These figures highlight the increase in levels of overweight and obesity as relative deprivation increases (similar to the IMD analysis), especially in Year 6 (Figs 4 & 5). In Year R, given the link to deprivation (Fig 2), there are lower than expected levels of overweight and obesity in the 'Senior Neighbourhoods', 'New Starters' and most noticeably, 'Urban Challenge' groups. Year 6 shows a stronger link between overweight and obesity and deprivation as seen in Figure 5. However, in the Year 6 analysis 'New Starters' and 'Multicultural Centres' groups may have lower than expected prevalence, especially in the percentage obese.

Figure 4: Year R overweight and obesity by P² People & Places

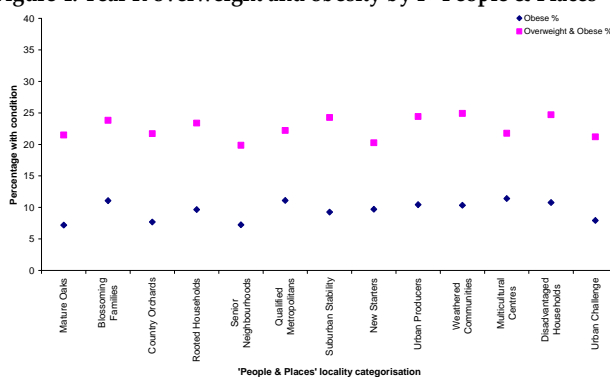
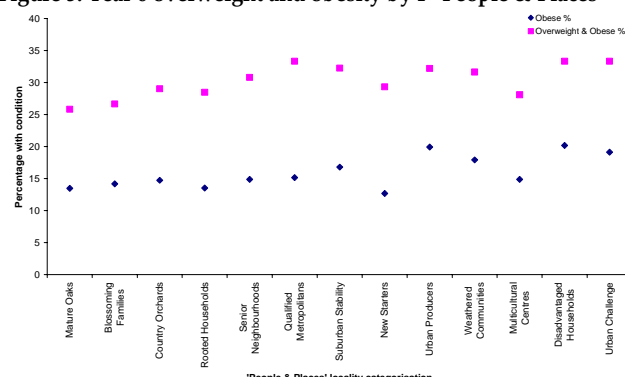


Figure 5: Year 6 overweight and obesity by P² People & Places



3. P² People & Places © Beacon Dodsworth 2004-2005. www.p2peopleandplaces.co.uk