

Child and Adult Overweight and Obesity in Stockton-on-Tees

Tees Public Health Intelligence Service – April 2009

Summary

- Obesity rates in children are significantly higher than the England rates.
- The proportion of children who walk or cycle to school is close to the England average.
- Adult obesity is estimated to be above the England rate, but not significantly so.
- The proportion of adults who are physically active is above the England rate.
- Fruit and vegetable consumption is significantly below the England average.

Risks of being overweight and obese

Being obese or overweight increases the risk of a range of diseases that can have a significant health impact on individuals. Around 58% of type-2 diabetes, 21% of heart disease and between 8% and 42% of certain cancers (endometrial, breast, and colon) are attributable to excess body fat. Obesity is responsible for 9,000 premature deaths each year in England, and reduces life expectancy by, on average, 9 years. Obese people can experience stigmatization and bullying, which can lead to depression and low self-esteem⁽¹⁾.

Definitions of Obesity

Overweight and obesity is defined in terms of body mass index (BMI). BMI is defined as weight (in kg) divided by height (in metres) squared:

$$\text{BMI} = \frac{\text{WEIGHT}}{\text{HEIGHT} \times \text{HEIGHT}}$$

For adults obesity is defined as having a BMI above 30, and overweight is a BMI above 25 but below 30.

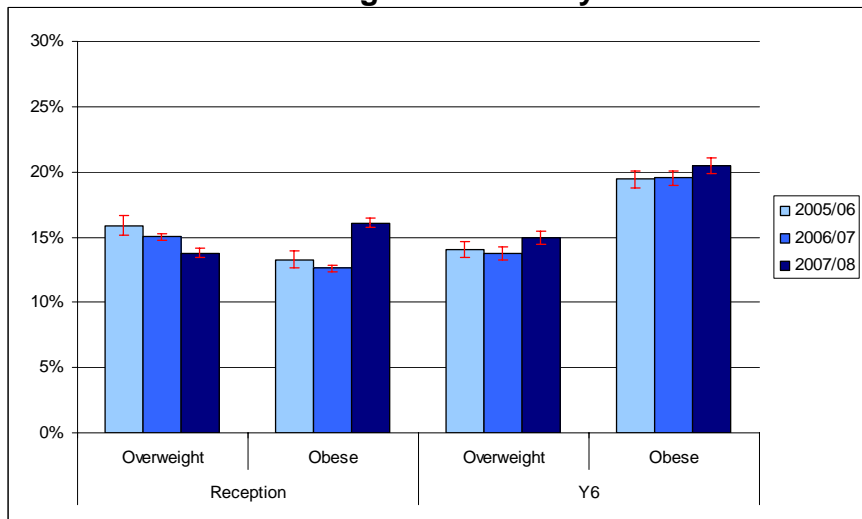
Since children are still growing, and may be weighed and measured at different ages, their BMI is compared to a standard reference population. They are compared with the percentage of children in the reference population with a BMI lower than their BMI, to provide a *centile*. For example, a child on the 75th centile would have 75% of similarly aged children in the reference population with a lower BMI. Overweight is defined as between the 85th and 95th centile, and obese as above the 95th centile for BMI.

Statistical Neighbours

This profile makes use of data available from the National Obesity Observatory. It presents data for Stockton along with two 'statistical neighbours', namely Bury and St. Helens. These are local authority areas outside the North East region, but with characteristics in common with Stockton, allowing a fair comparison to be made.

Child Overweight and Obesity

Trends in child overweight and obesity in Stockton



Data for the national child measurement programme have been collected for three years.

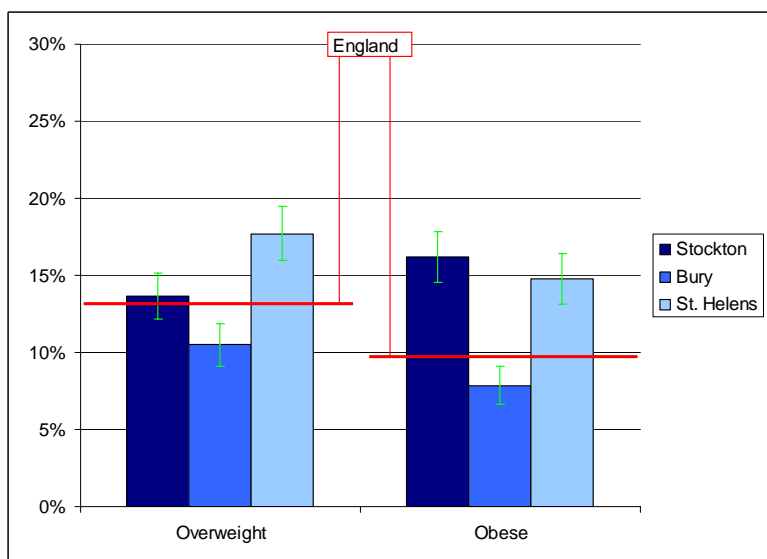
No definite trend over time is apparent locally.

Levels of overweight and obesity tend higher in year 6 than in reception classes.

(1) Department of Health, Obesity General Information

http://www.dh.gov.uk/en/PublicHealth/HealthImprovement/Obesity/DH_078098

Overweight and obesity rates in 5-year-olds, 2007/08



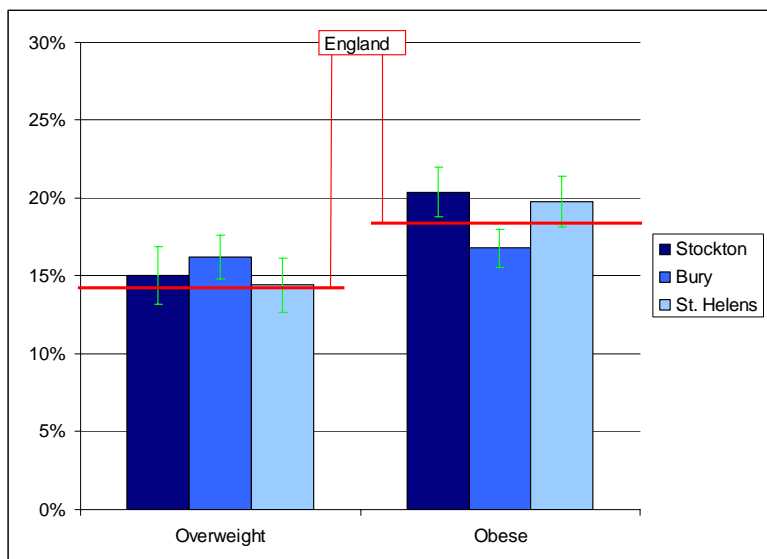
The rate for overweight 5-year-olds is not significantly different from that found in England, but the obesity rate is significantly higher.

There are significant differences between overweight and obesity rates in comparative areas.

Locally, 29.9% of 5-year-olds are either overweight or obese. This is approximately 650 children, of whom about 350 are in the obese group.

More children are obese compared to overweight in this age group in Stockton, but there are fewer obese children compared to overweight children in statistical neighbour areas.

Overweight and obesity rates in 11-year-olds, 2007/08



Obesity rates are significantly higher than England rates.

Rates of overweight and obesity are close to those found St. Helens, but the obesity rate is significantly higher than in Bury.

In Stockton 35.4% of 11-year-olds are either overweight or obese. This is approximately 810 children, of whom about 470 are in the obese category.

More children are obese compared to overweight in this age group.

Walk or cycle to school, 5 to 10-year-olds, 2007/08



Around six out of every ten primary school children walk or cycle to school in Stockton. This is above the England average, but still leaves more than one third children not travelling actively.

Walking or cycling to school is more common in Stockton than in similar local authority areas, but is lower than other areas of Teesside.

Association between obesity, risk factors and academic attainment

	Obesity - Girls - Age 11	Obesity - Boys - Age 11	Obesity - Children - Age 11	Obesity - Girls - Age 5	Obesity - Boys - Age 5	Obesity - Children - Age 5	Walk to school - Age 5-10	Key stage 2 level 4+ - Girls	Key stage 2 level 4+ - Boys	Key stage 2 level 4+ - Children	IMD-2007	IDACI - 2007
Obesity - Girls - Age 11	1	0.7	0.9	0.5	0.5	0.6	0.5	-0.4	-0.5	-0.5	0.7	0.7
Obesity - Boys - Age 11		1	0.9	0.5	0.5	0.6	0.5	-0.5	-0.5	-0.5	0.7	0.7
Obesity - Children - Age 11			1	0.6	0.5	0.6	0.5	-0.5	-0.6	-0.5	0.7	0.8
Obesity - Girls - Age 5				1	0.7	0.9	0.3	-0.4	-0.4	-0.4	0.5	0.5
Obesity - Boys - Age 5					1	0.9	0.2	-0.3	-0.3	-0.3	0.5	0.5
Obesity - Children - Age 5						1	0.3	-0.4	-0.4	-0.4	0.5	0.6
Walk to school - Age 5-10							1	-0.4	-0.4	-0.4	0.5	0.6
Key stage 2 level 4+ - Girls								1	0.9	1	-0.7	-0.6
Key stage 2 level 4+ - Boys									1	1	-0.7	-0.6
Key stage 2 level 4+ - Children										1	-0.7	-0.7
IMD-2007											1	0.9
IDACI - 2007												1

IMD: Index of Multiple Deprivation
IDACI: Income Deprivation Affecting Children Index

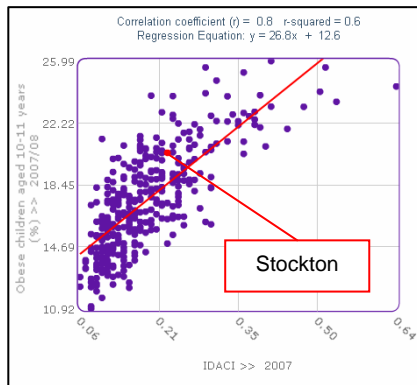
The correlation coefficients shown measure the strength of association between the indicators. These are based on rates for all local authorities in England.

Obesity levels at age 11 are moderately associated with obesity at age 5.

Higher obesity levels are associated with higher deprivation, and this is stronger in older children.

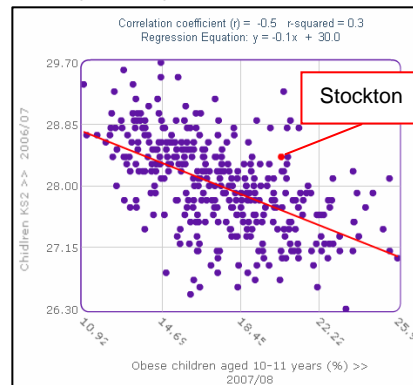
Academic attainment is inversely proportional to obesity rates, with the association being stronger in 11-year-olds than 5-year-olds.

Obesity in 11-year-old children and income deprivation affecting children index (IDACI)



Strong positive correlation
As deprivation increases so does the rate of obesity

Key stage 2 attainment and obesity in 11-year-old children

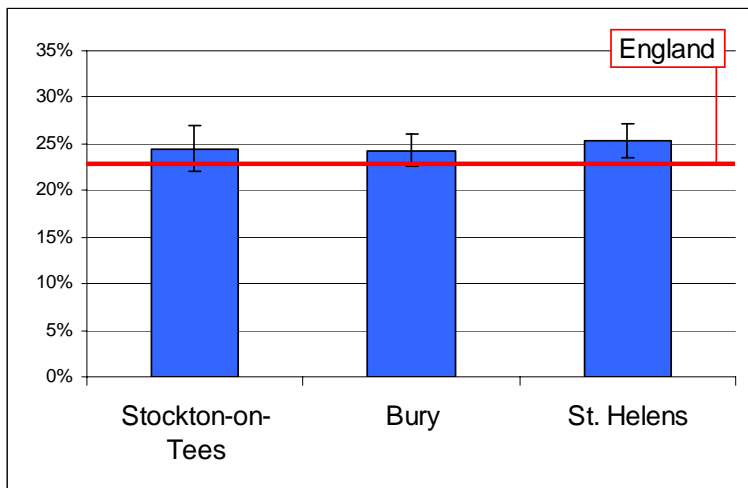


Moderate negative correlation
Where obesity rates are highest academic achievement rates are lowest

These charts show the associations for all local authorities in England. They show that as deprivation increases so do obesity rates; and as obesity rates increase, academic achievement tends to decrease.

Adult Obesity

Adult obesity, 2003-05 (model-based estimate, age 16+)

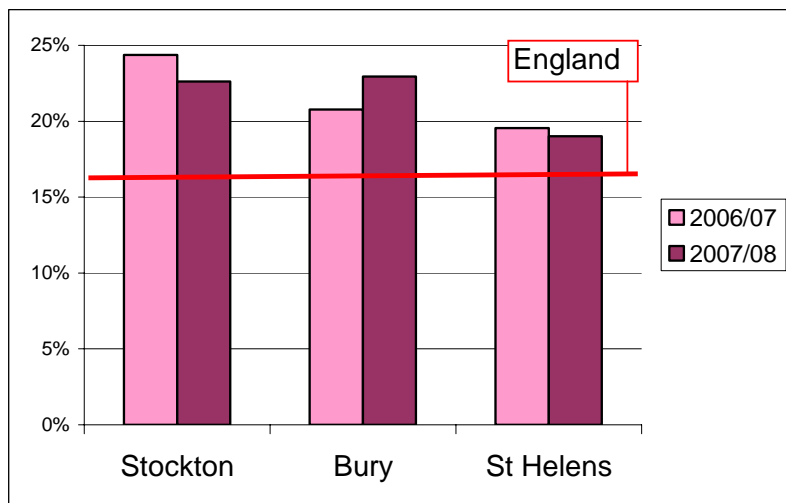


Adult obesity in Stockton is not significantly different from England.

Local adult obesity rates are comparable with rates found in statistical neighbour areas.

About one quarter of adults in Stockton are estimated to be obese.

Adults physically active for 30 minutes or more at least 3 times per week.



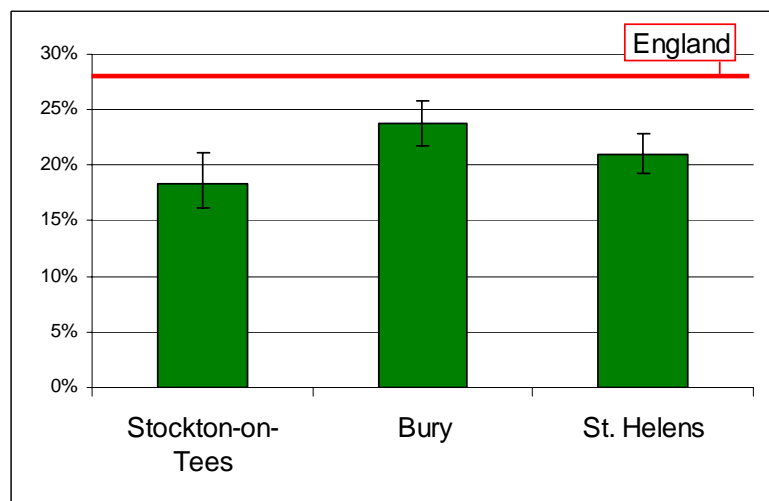
Physical activity levels are higher than the England average for 2007/08.

The adult activity rate is higher than that found in St. Helens but lower than the rate for Bury in 2007/08.

Less than one-quarter of adults in Stockton are physically active for 30 minutes, three times per week.

Physical activity appears to have decreased slightly from 2006/07 to 2007/08.

Adults eating five or more portions of fruit and vegetables per week, 2003-2005 (model-based estimates)



The proportion of adults eating the recommended quantity of fruit and vegetables is significantly lower than for England.

The levels are below those found in comparable areas, significantly lower than Bury.

Around five of every six adults in Stockton are not eating the recommended amount of fruit and vegetables.

Additional Sources of Information

National Obesity Observatory – www.noo.org.uk

Provides a single point of contact for wide-ranging authoritative information on data, evidence and practice related to obesity, overweight, underweight and their determinants.

National Child Measurement Programme – www.ncmp.ic.nhs.uk

Established in 2005, the National Child Measurement Programme (NCMP) weighs and measures children in Reception (aged 4–5 years) and Year 6 (aged 10–11 years) to assess overweight and obese levels.

Active People Survey - www.sportengland.org/index/get_resources/research/active_people.htm

The survey identifies how sport participation varies from place to place and between different groups in the population.

Health Survey for England –

www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england

A series of annual surveys designed to measure health and health related behaviours in adults and children.

National Audit Office: Tackling obesity in England –

www.nao.org.uk/publications/0001/tackling_obesity_in_england.aspx

National Institute for Health and Clinical Excellence –

- Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children www.nice.org.uk/Guidance/CG43
- Promoting physical activity in the workplace - www.nice.org.uk/Guidance/PH13