

National Child Measurement Programme

2016/17

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Background

The National Child Measurement Programme (NCMP¹) was established in 2005/06. It aims to measure the height and weight of every child in reception year (YR) and year 6 (Y6) – as they enter and leave primary school – to inform local planning and delivery of services for children; and gather population-level surveillance data to allow analysis of trends in growth patterns and obesity.

This report provides results from the 2016/17 Sefton NCMP programme compared to previous time periods and national, regional, local and comparable benchmarks. The analysis includes all children measured as part of the Sefton programme and therefore some children who attend school in Sefton but live outside the borough. Prevalence figures derived from all children with a Sefton postcode (who may have been measured as part of the Sefton programme or a neighbouring programme) are available in the appendix.

The report also includes analysis at sub local authority geographies including ward, children's centre reach, school and deprivation quintile. This analysis includes children measured as part of the Sefton programme who live within Sefton local authority. Care should be taken in the interpretation of analysis at lower geographical levels as such prevalence rates are subject to a high degree of natural variation due to the small numbers involved. Confidence intervals were calculated to help determine whether differences from the Sefton average were statistically significant rather than being due to random variation or chance.

Coverage

Compared to 2015/16 Sefton's 2016/17 coverage was lower for YR but higher for Y6. Coverage remains above the 85% participation target and Y6 coverage was above the England average.

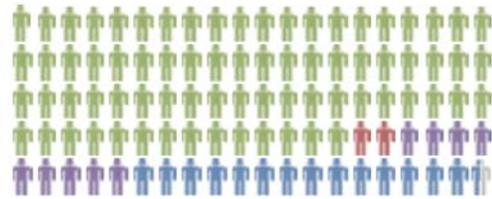
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Year R	91.1%	98.0%	96.9%	97.2%	96.3%	97.9%	96.2%	97.4%	96.7%	93.7%
Year 6	87.4%	93.9%	93.1%	95.1%	89.9%	97.4%	97.3%	93.6%	91.7%	95.4%

¹ <http://www.hscic.gov.uk/ncmp>

NCMP 2016/17 Results

According to the 2016/17 NCMP programme over 1 in 10 Reception Children in Sefton are Obese, 1 in 4 are obese or overweight and 1 in 50 children are severely obese.

Reception



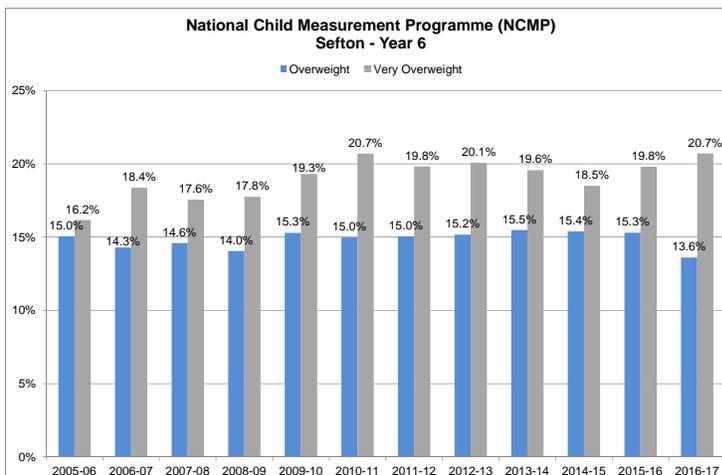
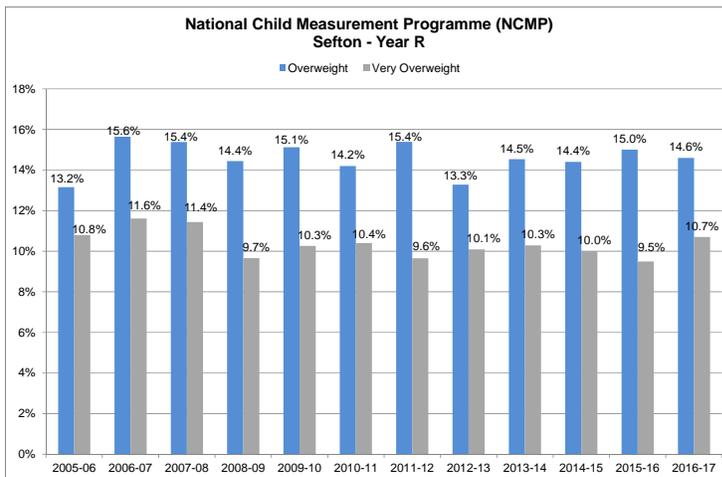
● Healthy Weight ● Severely Obese ● Obese
● Overweight ● Underweight

Year 6



● Healthy Weight ● Severely Obese ● Obese
● Overweight ● Underweight

In Year 6 this rises to 1 in 5 children who are obese, 1 in 3 who are obese or overweight and 1 in 25 who are severely obese.



Sefton's rates of overweight children in YR (14.6%) decreased slightly compared to 2015/16 but levels of obese children (10.7%) increased. Sefton's rate of overweight children (13.6%) in Y6 also decreased whilst rates of obesity (20.7%) increased slightly. However, these changes are not statistically significant and it is recommended that at least five years of data are used to properly assess trends in childhood obesity. Data from the last decade would suggest that YR obesity rates have fallen slightly overall and that Y6 rates may be stabilising following earlier increases.

Benchmarked Results

Sefton's YR overweight rates are significantly higher than the national average. However, rates of YR obesity, Y6 overweight and Y6 obesity are not significantly different to the England and North West averages.

Sefton's Y6 rate of obesity is significantly lower than Knowsley and St Helens. The YR obesity rate and YR and Y6 overweight rates do not differ significantly between Sefton and the other Merseyside local authorities.

Sefton's rates of overweight children and obese children in Y6 do not differ significantly to those of statistically similar areas (Wirral, North Tyneside, Northumberland and Southend on Sea). The YR rate of obesity is significantly higher than Southend on Sea.

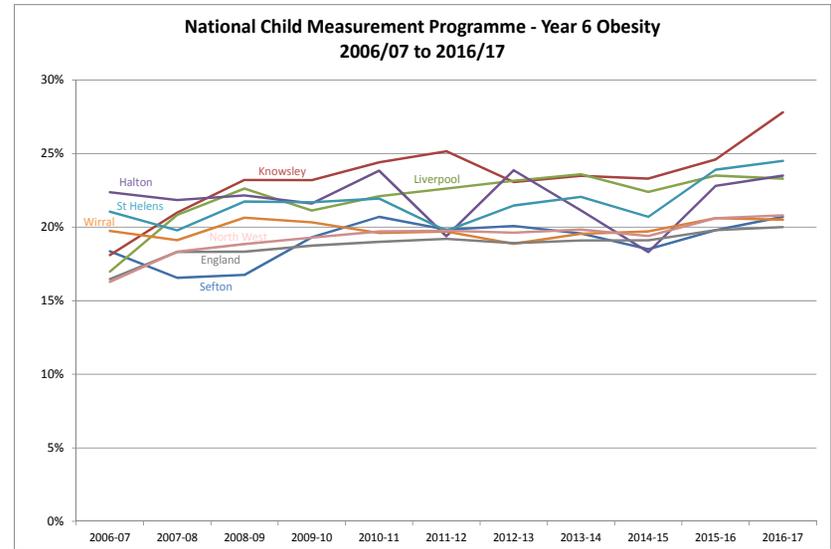
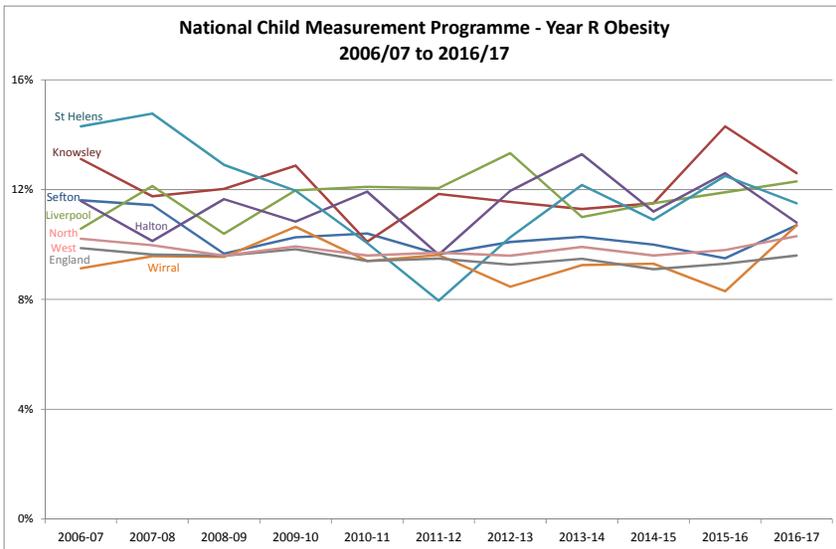
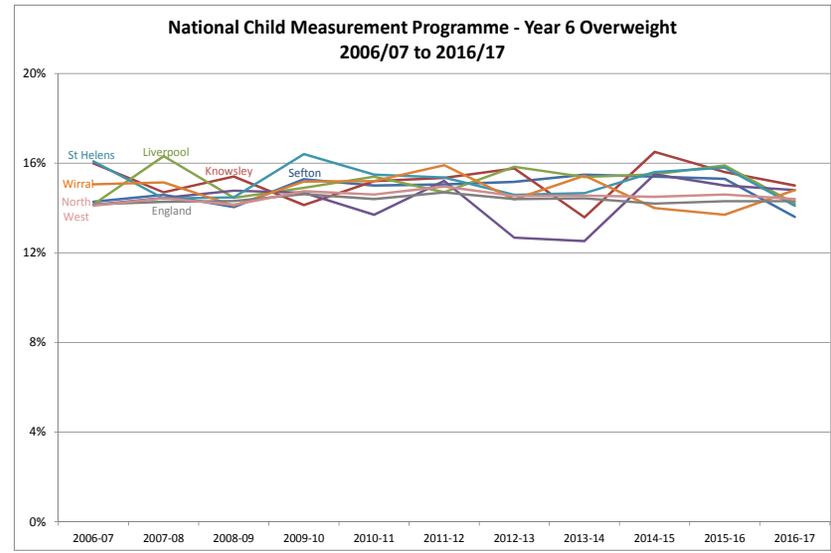
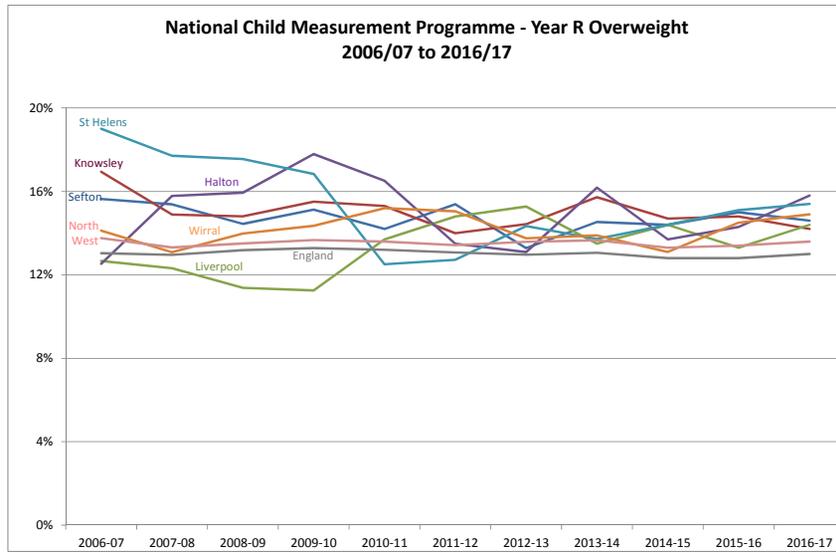
National Child Measurement Programme 2016-17				
Area	Year R Overweight	Year R Obese	Year 6 Overweight	Year 6 Obese
Sefton	14.6%	10.7%	13.6%	20.7%
England	13.0%	9.6%	14.3%	20.0%
NW	13.6%	10.3%	14.4%	20.8%
Knowsley	14.2%	12.6%	15.0%	27.8%
Liverpool	14.4%	12.3%	14.2%	23.3%
Halton	15.8%	10.8%	14.8%	23.5%
St Helens	15.4%	11.5%	14.1%	24.5%
Wirral	14.9%	10.7%	14.8%	20.5%
North Tyneside	14.7%	9.8%	15.0%	20.6%
Northumberland	13.8%	10.4%	14.2%	21.0%
Southend on Sea	13.1%	8.2%	14.8%	17.7%

Green – significantly lower than Sefton (at 95% level)

Yellow – not significantly different to Sefton (at 95% level)

Red – significantly higher than Sefton (at 95% level)

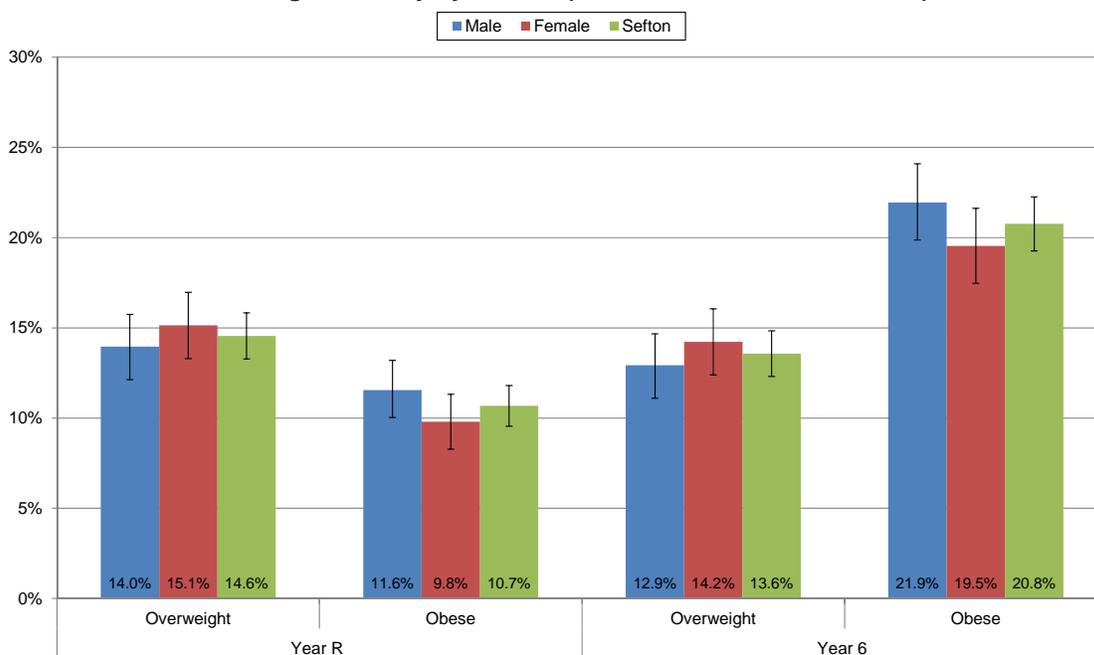
YR and Y6 overweight rates remain static for most Merseyside authorities (including Sefton) with very few significant increases or decreases between 2006/07 and 2016/16. Greater changes have been seen in the obesity rates across Merseyside. In particular, Y6 obesity rates have increased since 2006/07 for all Merseyside local authorities. These increases are statistically significant for Knowsley and Liverpool. In Sefton the Y6 obesity rate appears to be stabilising following earlier increases.



Gender

Rates of overweight pupils were higher amongst girls than boys for both YR and Y6. YR girls had the highest overweight rates at 15.1%. Conversely YR and Y6 obesity rates were higher amongst boys than girls. Twenty-one percent of boys in Y6 were obese. Compared with 2015/16, overweight rates have decreased for both sexes. The Y6 girls obesity rate has increased from 16.9% in 2015/16 to 19.5% in 2016/17. However, none of these differences are statistically significant.

**National Child Measurement Programme 2016/17
Overweight/ Obesity by Gender (with 95% confidence intervals)**



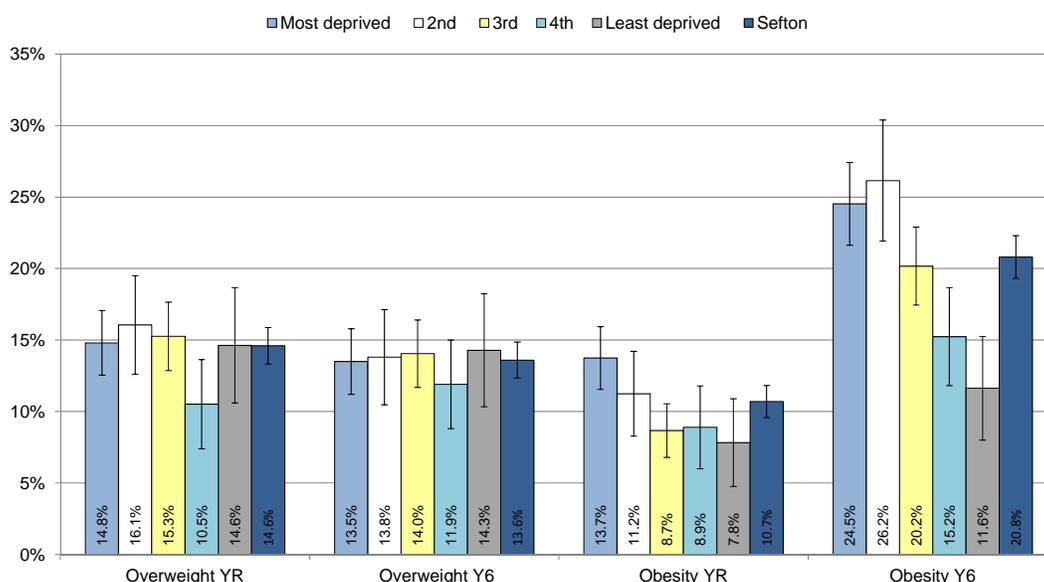
Ethnicity

The NCMP steering group have improved ethnicity recording for the 2016/17 programme. Ninety-seven percent of records had a valid ethnicity recorded. Of these children, 92% were categorised as White. No significant differences were found between the weight status of White children and children from Black and Minority Ethnic (BME) groups in Sefton. However the rates for children from BME groups are based on very low numbers, limiting the ability to detect any true differences. Nationally, where larger cohorts of children are considered, obesity is highest for children of Black ethnicity in both YR and Y6. It is lowest for Chinese children in YR and White and Chinese children in Y6.

Deprivation

The Indices of Multiple Deprivation 2015 (IMD 2015) are the Government's official measure of deprivation at small area level. The IMD 2015 brings together 37 different indicators covering specific aspects of deprivation such as income, education, employment, health and disability. IMD 2015 is based on lower super output areas (LSOAs) – geographical areas containing approximately 1,500 people. There are 189 LSOAs in Sefton which are ranked into national quintiles (20% bands) from most to least deprived. For NCMP 2016-17 pupils' postcodes were collected. Pupil home postcode data enables the LSOA and therefore the deprivation quintile to be determined.

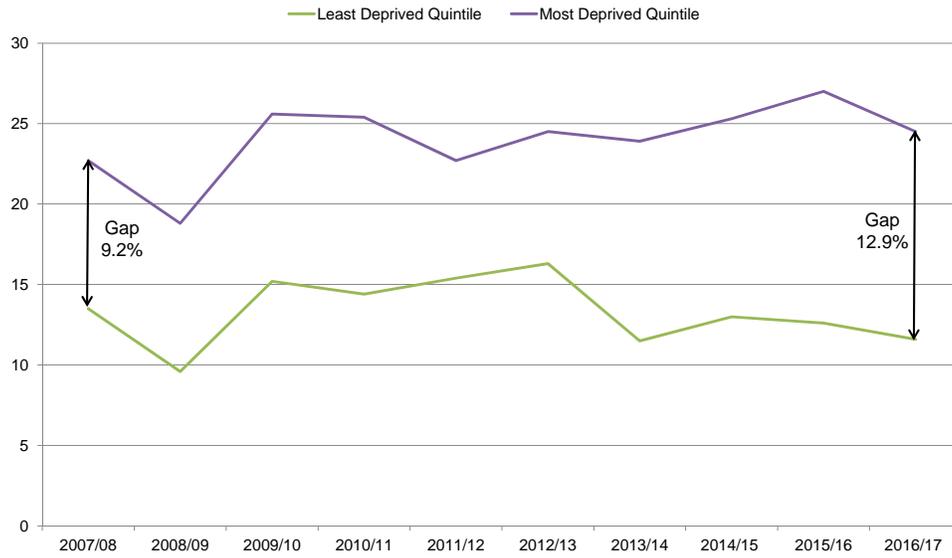
**National Child Measurement Programme 2016/17
Overweight/Obesity by Deprivation Quintile
(with 95% confidence intervals)**



Overweight rates for the different deprivation quintiles did not differ significantly from each other or from the Sefton average for either year group. However, Sefton's rates of obese children generally increased with increasing deprivation. Y6 obesity rates in the most deprived quintile (24.5%) and the second most deprived quintile (26.2%) were more than double that of children living in the least deprived quintile (11.6%).

The gap in obesity prevalence between the most and least deprived quintiles for Y6 has narrowed from 14.4 percentage points in 2015/16 to 12.9 percentage points in 2016/17. However overall the gap in obesity prevalence has increased over time, from 9.2 percentage points in 2007/08.

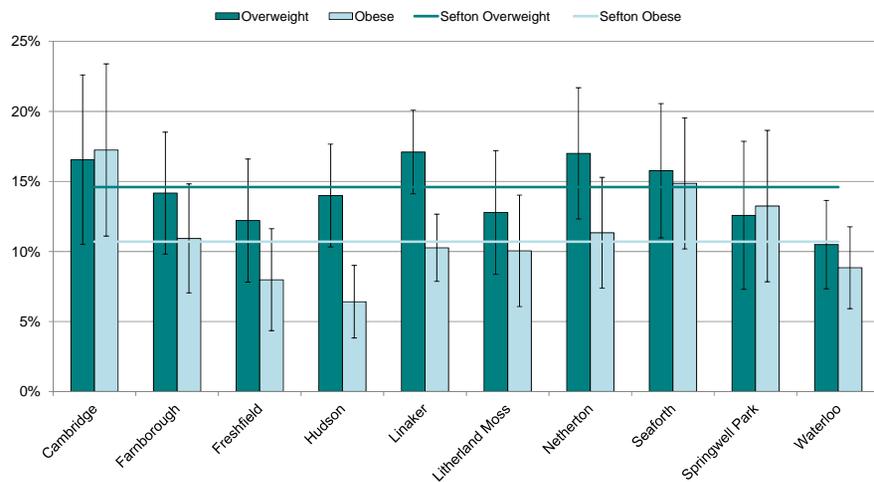
Gap in Y6 obesity prevalence between Sefton's most and least deprived quintiles (2010/11 -2016/17)



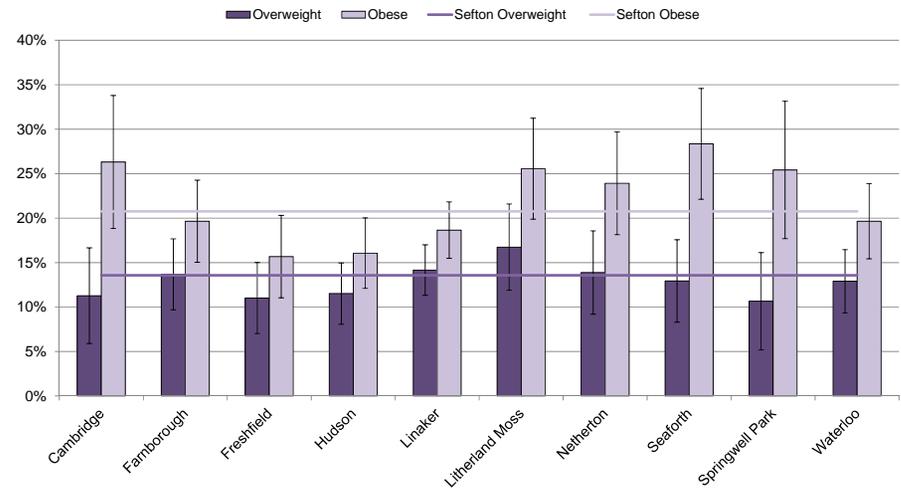
Children's Centre

There are 10 children's centre reaches in Sefton. The rate of YR excess weight was highest for the Cambridge reach at 33.8%. Litherland Moss, had the highest rate of Y6 excess weight (42.3%). However when confidence intervals were calculated no statistically significant differences were found between the Sefton average and the rates for individual children's centres.

**National Child Measurement Programme 2016/17
Overweight/ Obese by Children's Centre - YEAR R
(with 95% confidence intervals)**



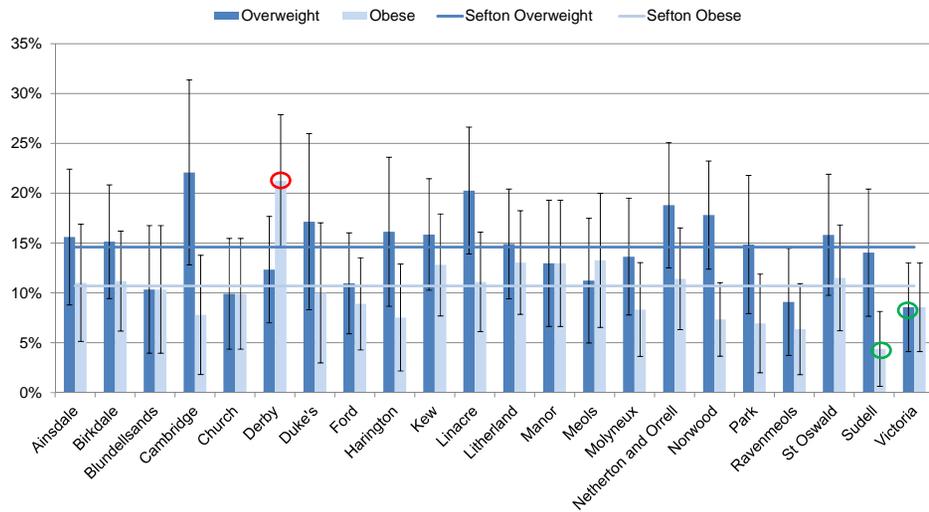
**National Child Measurement Programme 2016/17
Overweight/ Obese by Children's Centre - YEAR 6
(with 95% confidence intervals)**



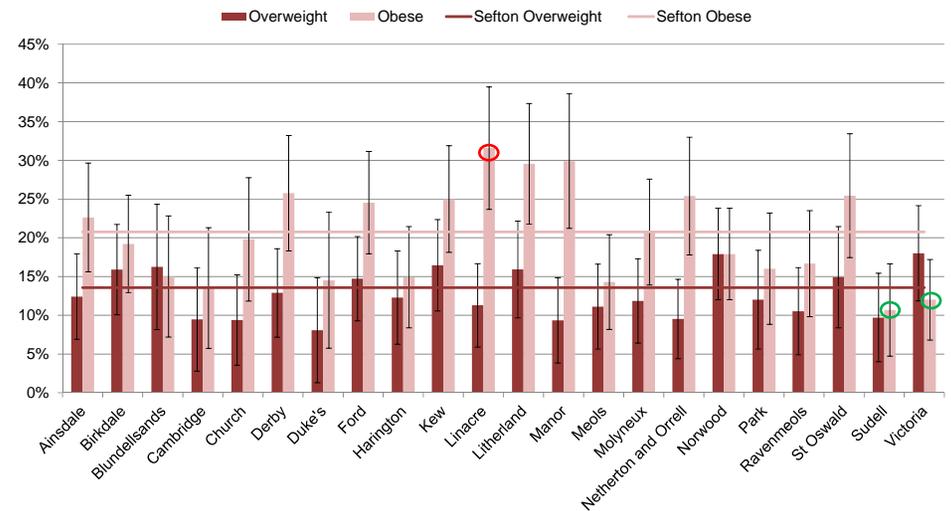
Ward

Analysis by the 22 electoral wards in Sefton revealed some differences in overweight and obesity rates. Care should be taken when interpreting ward level prevalence rates as the small numbers involved means they are subject to a high degree of natural variation. The YR obesity rate for Sudell was significantly lower than the Sefton average but the rate for Derby was significantly higher than the Sefton average. The YR overweight rate for Victoria was significantly lower than the Sefton average. The Year 6 obesity rates in Sudell and Victoria were significantly lower than the Sefton average but the Linacre rate was significantly higher than the Sefton average. These findings show no similarities to the previous year's data.

**National Child Measurement Programme 2016/17
Overweight/ Obese by Ward - YEAR R
(with 95% confidence intervals)**



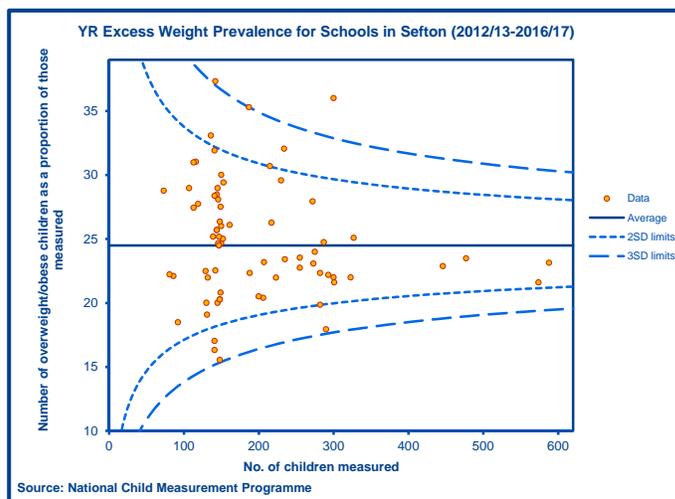
**National Child Measurement Programme 2016/17
Overweight/ Obese by Ward - YEAR 6
(with 95% confidence intervals)**



School

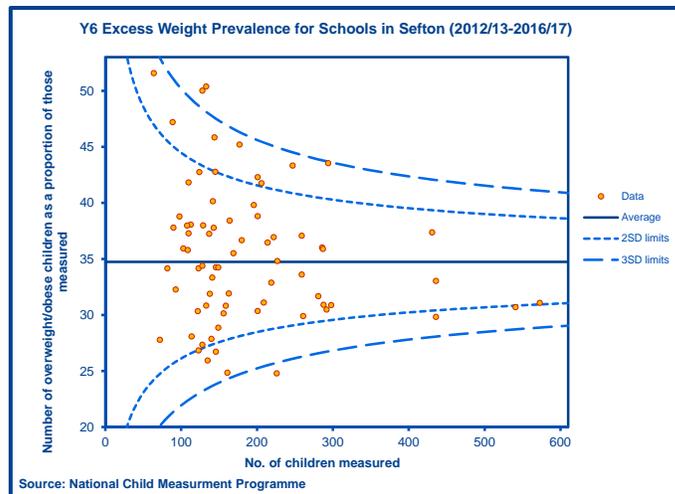
Five years of NCMP data (2012/13 to 2016/17) have been combined to analyse differences between schools in Sefton. Small class sizes in some primary schools means that analysing data over shorter time periods, for example a single year, would not provide robust figures.

The excess weight (overweight and obese) prevalence rates for Sefton's schools have been plotted on funnel charts. Funnel charts allow many points to be plotted simultaneously and provide information about whether each point is significantly above or below an expected value. In this case the expected value is the average Sefton excess weight prevalence. The charts can be used to pinpoint schools whose rates lie at the outer extremes of the normal distribution of the data (2 or 3 standard deviations from the Sefton average). We can be 95% confident that those with a prevalence 2 standard deviations away from the Sefton average are statistically significantly different to the Sefton average. For those with a prevalence 3 standard deviations away from the Sefton average, we can be 99% confident that they are statistically significantly different to the Sefton average. School level figures should be interpreted with caution. Differences in excess weight rates between schools are often due to differences in the sociodemographic make up of schools and are not a measure of school environment.



The YR excess weight prevalence was significantly higher than the Sefton average at the 99% level for Netherton Moss and St Monicas and at the 95% level for Christ Church, Rimrose Hope and St William of York.

The YR excess weight prevalence was significantly lower than the Sefton average at the 95% level for Aintree Davenhill, Freshfield Primary, Holy Spirit and St Jerome's.



The Y6 excess weight prevalence was significantly higher than the Sefton average at the 99% level for St Oswald's and St Robert Bellarmine and at the 95% level for Hatton Hill, Holy Family, Hudson Primary, Linaker Primary, Our Lady Queen Of Peace, Rimrose Hope, St Elizabeth's and St Monica's.

The Y6 excess weight prevalence was significantly lower than the Sefton average at the 99% level for Woodlands Primary and at the 95% level for Churchtown, Great Crosby, Our Lady of Compassion, St Gregory's, St Thomas and Trinity St Peter's.

Changes in Pupil Weight Status between Reception and Year 6

Now that the National Child Measurement Programme has been delivered in Sefton for over 7 years it is possible to try and track the weight status of children who have participated in both YR and Y6. Such analysis will help improve understanding of how children's weight changes during primary school and will inform the planning of public health interventions to reduce childhood obesity.

Reception data from the 2010/11 programme was matched against Y6 data from the 2016/17 programme to explore changes in the weight status of this cohort of children. The records of 2391 children were matched between the two programmes and included a valid weight status at both YR and Y6. This represents 88% of Reception children who participated in the 2010/11 programme being tracked to Year 6.

Overall 69% of the children had the same weight status at Y6 as at YR, 23% had changed to a less healthy weight status and 8% had changed to a healthier weight status. More specifically:

- Of the children who were overweight in YR 21% remained overweight, 39% became obese and 40% became a healthy weight at Y6.
- Of the children who were obese in YR 78% remained obese, 15% became overweight and 7% became a healthy weight at Y6.
- Of the children who were a healthy weight in YR 76% remained a healthy weight, 13% became overweight, 10% became obese and 1% became underweight by Y6.

No differences were found between girls and boys for changes to weight status during primary school.

Appendix

NCMP 2016/17 results – Children whose home postcode falls within the Local Authority

National Child Measurement Programme 2015-16				
Area	Year R Overweight	Year R Obese	Year 6 Overweight	Year 6 Obese
Sefton	14.6%	10.4%	13.2%	20.7%
England	13.0%	9.6%	14.3%	20.0%
NW	13.6%	10.3%	14.4%	20.8%
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Liverpool	14.2%	12.6%	14.1%	23.7%
Halton	15.8%	10.8%	15.2%	22.9%
St Helens	15.4%	11.4%	14.1%	24.4%
Wirral	14.9%	10.8%	14.7%	20.6%
North Tyneside	15.0%	9.8%	14.7%	20.6%
Northumberland	13.8%	10.5%	14.2%	21.1%
Southend on Sea	13.2%	8.2%	14.7%	17.9%

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