

REPORT TO: Health and Wellbeing Board

DATE: 22nd May 2013

REPORTING OFFICER: Director of Public Health

PORTFOLIO: Health and Adults

SUBJECT: National Child Measurement Programme (NCMP) Outcomes

WARD(S) Borough-wide

1.0 PURPOSE OF THE REPORT

1.1 To provide an update on levels of childhood obesity in Halton, as recorded through the National Child Measurement Programme.

2.0 RECOMMENDATION: That the Board

- 1. note progress in reducing levels of excess weight (overweight and obese) in children in Halton from 28.4% in 2010/11 to 23.1% in 2011/12 for children in reception, and from 37.5% in 2010/11 to 34.6% in 2011/12 in year 6 children;**
- 2. note that children in Halton are now at the same weight as the England average;**
- 3. note the impact of the Halton Healthy Early Years Standards and the schools 'Fit4life' Programme; and**
- 4. note that in the future performance reporting against this outcome will change to a measure of 'excess weight' (which includes both children who are overweight and children who are obese).**

3.0 SUPPORTING INFORMATION

3.1 The National Child Measurement Programme (NCMP) is a surveillance programme, introduced by the Department of Health in 2006 to measure obesity levels in the population. This was in response to research identifying that obesity increases an individual's risk of serious and potentially life threatening conditions such as Diabetes, Coronary Heart Disease and some cancers.

3.2 The NCMP involves school nurses measuring the height and weight of all children in reception (aged 4-5) and year 6 (aged 10-11)

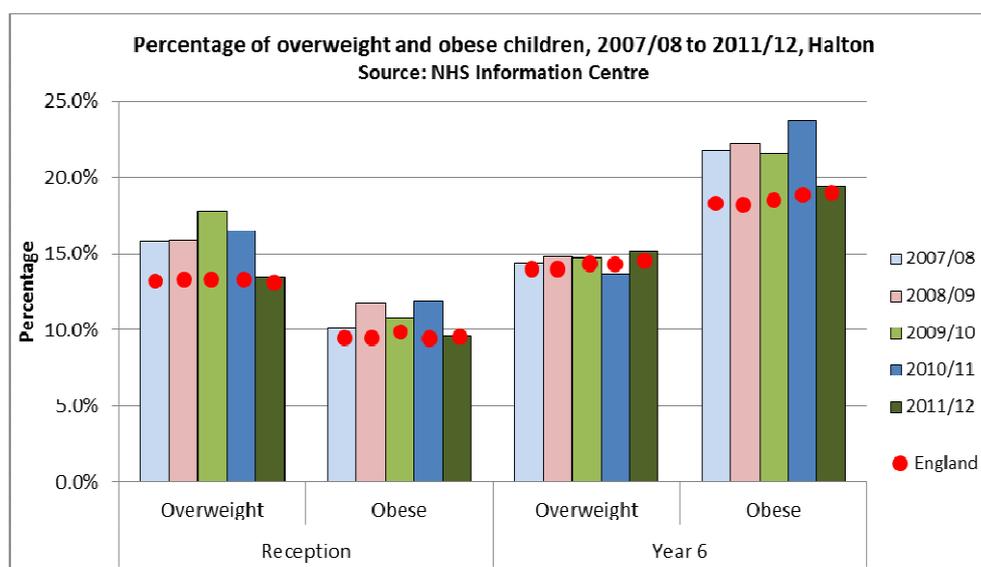
annually. Using these figures the child's BMI (Body Mass Index) is calculated, and this provides a measure of the proportion of children who are overweight or obese in these year groups. Permission is obtained from the family and individuals may opt out of the programme should they choose to do so.

- 3.3 The Department of health stipulate that a minimum of 85% of all eligible children are measured. This is to ensure that the data covers a large enough proportion of the population to provide meaningful results. In Halton the School nurses have consistently achieved and exceeded this standard.
- 3.4 From 2013 onwards the National Child Measurement Programme will report the percentage of children who are of excess weight. This measure incorporates both the number of children who are overweight and the number who are obese. This measure has been used for this paper, and it is recommended it be used for performance reporting within Halton Borough Council, to simplify the interpretation of results.
- 3.5 In Halton there has been an extensive programme working with both schools and early year settings to reduce the levels of childhood obesity. This includes the school Fit4Life Programme which tackles overweight and has had an impact on year 6 obesity rates. The Fit4Life programme targets schools with the highest obesity rates. It offers education for teachers and children and their parents in cooking, healthy eating and the importance of exercise. It runs fun exercise classes for all children in the school. Data from the programme indicates that for participating schools the Fit4life programme reduces the level of excess weight by approximately a third.
- 3.6 An additional programme is also being delivered called Healthitude which links to the Personal Social and Health education curriculum and has a healthy eating component to it. This is being offer to all schools. Halton has also maintained the Healthy schools programme which works on this agenda.
- 3.7 A number of healthy weight programmes are now in place for early years and are having an impact. These include Healthy Early Years Programme (fit4life) for children aged up to 5 and their families, cookery lessons for parents, active tots groups and education and training for parents and service providers.
- 3.8 Children's Centres and Early Years Providers continue to work to meet the Healthy Early Years Standards which include food standards and healthy eating.
- 3.9 The development of an infant feeding team and weaning services should also have an impact in the future years as will the national

programme of increasing the numbers of Health Visitors.

3.10 In Halton there have been reductions in the levels of excess weight in both reception and year 6 children in 2011/12 data when compared to the 2010/11 figures. For reception aged children the figures reduced by 5.3%, from 28.4% in 2010/11 to 23.1% in 2011/12. Figures of excess weight in year 6 children reduced by 3.1% from 37.5% in 2010/11 to 34.6% in 2011/12.

3.11 **Graph 1: Change in percentage of overweight and obese children in Halton, compared to England, 2007/08 to 2011/12**



3.12 Graph 1 illustrates that the rates of children who are obese and overweight in reception and year 6 has reduced in 2011/12 in all measures, with the exception of the number of year 6 children who are overweight.

3.13 For reception aged children there was a reduction from 16.5% to 13.5% in the number of children who were overweight and a reduction from 11.9% (2010/11) to 9.6% (2011/12) in the number of children who were obese.

3.14 For year 6 children there was an increase from 13.7% (2010/11) to 15.2% (2011/12) in the number of children who were overweight and a reduction from 23.8% (2010/11) to 19.4% (2011/12) in the number of children who are obese. Anecdotal evidence from staff running the 'Fit4life' programme in schools suggests that one of the reasons for the increase in the number of children in year 6 who are overweight, is as a result of obese children successfully losing weight, and moving to the overweight category.

3.15 For the first time since NCMP started Halton has rates of obesity that are similar to the England average for all measures and ages.

3.16 For a more detailed analysis of the data please see the full NCMP report in Appendix 1. This includes a breakdown by gender, ward and by schools.

4.0 **POLICY IMPLICATIONS**

4.1 Progress has been made in this area, but healthy weight remains a priority area for action. Work on this agenda is being directed through the healthy weight strategy and the Health and Wellbeing board's child development action plan.

5.0 **OTHER/FINANCIAL IMPLICATIONS**

5.1 There are no additional cost implications from this paper, other than to continue to fund healthy weight programmes for children, young people and their families. It should be noted that evidence suggests that reducing the number of people who are overweight and obese results in long term cost savings, as a result of improving health and subsequent reductions in the demand on services.

6.0 **IMPLICATIONS FOR THE COUNCIL'S PRIORITIES**

6.1 **Children & Young People in Halton**

All issues outlined in this report focus directly on this priority.

6.2 **Employment, Learning & Skills in Halton**

None directly identified, other than using educational settings as venues for the healthy weight programmes

6.3 **A Healthy Halton**

All issues outlined in this report focus directly on this priority

6.4 **A Safer Halton**

No direct implications have been identified

6.5 **Halton's Urban Renewal**

No direct implications have been identified

7.0 **RISK ANALYSIS**

7.1 Halton Borough Council may be at risk of not meeting national targets if healthy weight does not continue to be a priority, and the continuation of the National Child Measurement Programme is a key component to delivering this agenda. There are no immediate financial risks identified. The recommendations do not require a full risk assessment.

8.0 **EQUALITY AND DIVERSITY ISSUES**

8.1 This is in line with all equality and diversity issues in Halton.

9.0 **LIST OF BACKGROUND PAPERS UNDER SECTION 100D OF THE LOCAL GOVERNMENT ACT 1972**

Document	Place of Inspection	Contact Officer
National Child Measurement Programme Report 2013.	Public Health	Jen Oultram

Compiled by: Julia Rosser, Public Health Consultant and Jen Oultram: Intelligence officer

Appendix 1

National Child Measurement Programme Summary of Results for Halton 2011/12 Official Data*

Please note that the data below states whether the data was derived from the postcode of the school or derived from the postcode of the child's residence.

School = derived from the school postcode.

Resident = derived from child's residential postcode

Participation

% Participation	Reception	Target	Year 6	Target
Halton	96.7%	85%	92.7%	85%

Excess Weight (overweight & obese)

% Overweight & Obese	Reception	Change from 2010/11	Year 6	Change from 2010/11
Halton (school)	23.1%	↓ 28.4%	34.6%	↓ 37.5%
Halton (resident)	22.8%	↓ 28.6%	34.7%	↓ 37.6%

Overweight

% Overweight	Reception	Change from 2010/11	Year 6	Change from 2010/11
Halton (school)	13.5%	↓ 16.5%	15.2%	↑ 13.7%
Halton (resident)	13.2%	↓ 16.8%	15.2%	↑ 13.8%

Obese

% Obese	Reception	Change from 2010/11	Year 6	Change from 2010/11
Halton (school)	9.6%	↓ 11.9%	19.4%	↓ 23.8%
Halton (resident)	9.6%	↓ 11.8%	19.5%	↓ 23.8%

Underweight

% Obese	Reception	Change from 2010/11	Year 6	Change from 2010/11
Halton (school)	1.2%	↑ 0.4%	1.6%	↑ 1.3%
Halton (resident)	1.0%	↑ 0.4%	1.6%	↑ 1.3%

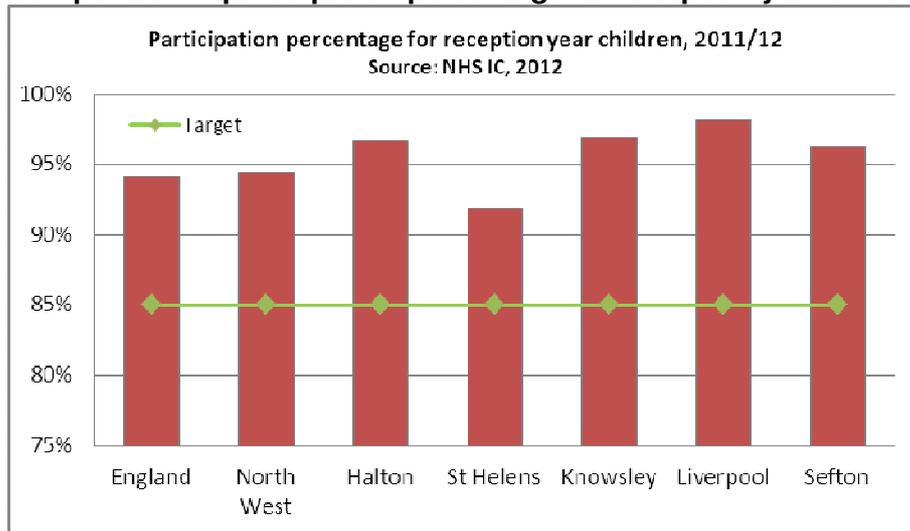
* Please note that there was an issue with the Leicester Height Measurement equipment that was used for Widnes school children, but it was not known how many children were affected. There could be up to a 2.9cm difference from the true height of some children, so caution needs to be taken when interpreting the following data.

All the charts below are based on data from the postcode of the school.

Comparison of Participation

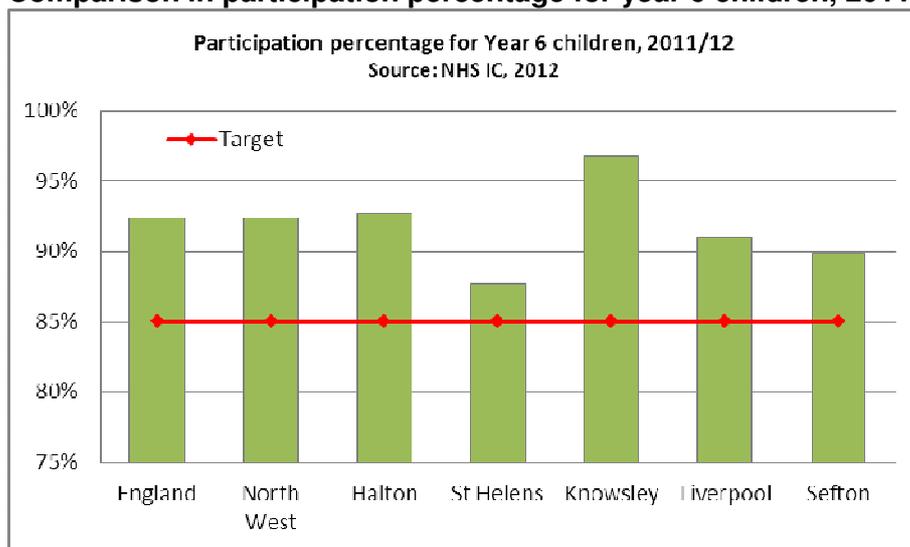
The following charts compare the participation percentage of children in reception and year 6 with the England and North West average, as well as the other local authorities within the Merseyside cluster.

Comparison in participation percentage for reception year children, 2011/12



The participation percentage for reception year children in Halton was higher than the England and North West; however it was lower when compared to Knowsley and Liverpool.

Comparison in participation percentage for year 6 children, 2011/12

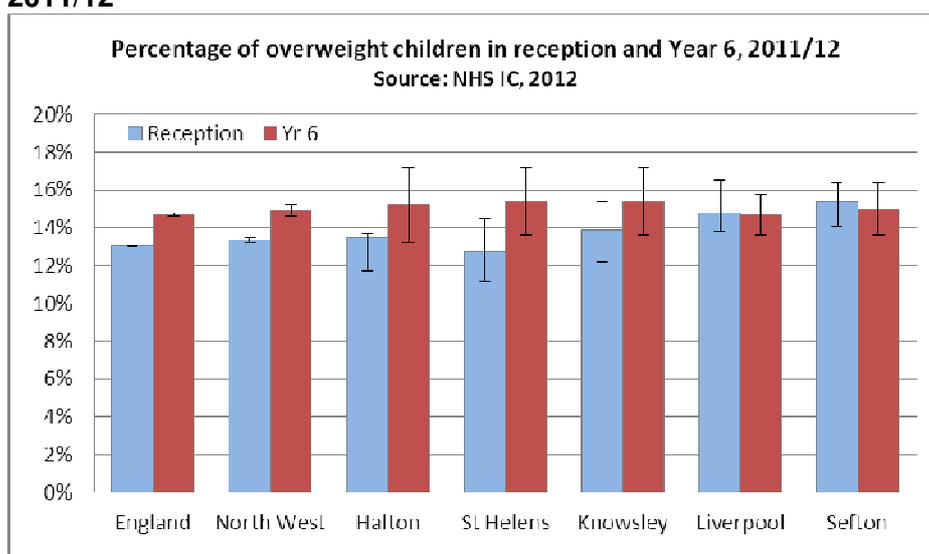


Halton had a higher participation percentage for year 6 children compared to England and North West. The only local authority in the Merseyside cluster which had a higher participation percentage than Halton was Knowsley.

Comparison of Overweight, Obese and Excess Weight

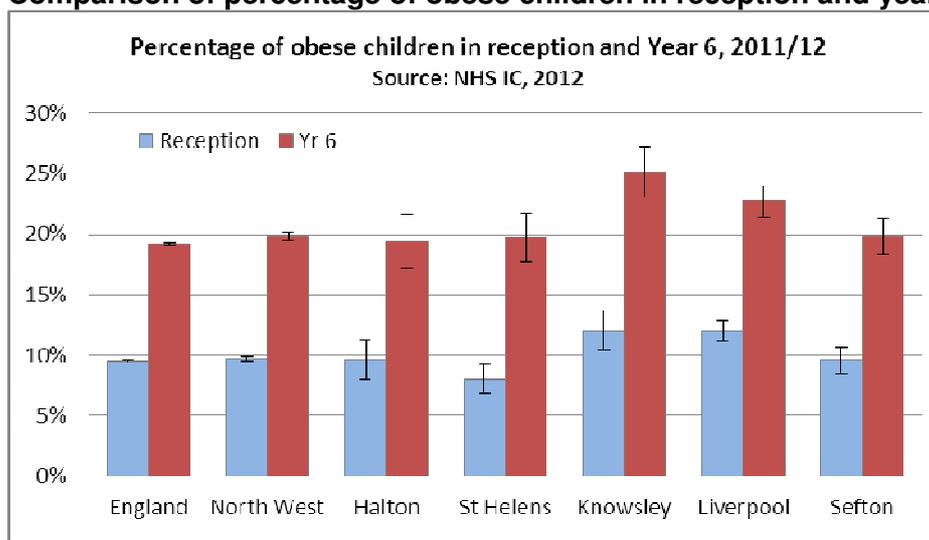
The following charts show the differences in the percentage of overweight, obese and excess weight in reception and year 6 children, compared with the England and North West average, as well as the other local authorities within the Merseyside cluster.

Comparison of percentage of overweight children in reception and year 6, 2011/12



Halton had a higher percentage of overweight children in reception and year 6 when compared to the England and North West, but they weren't significantly higher. The only local authority within the Merseyside cluster which had a lower percentage of overweight reception year children was St Helens.

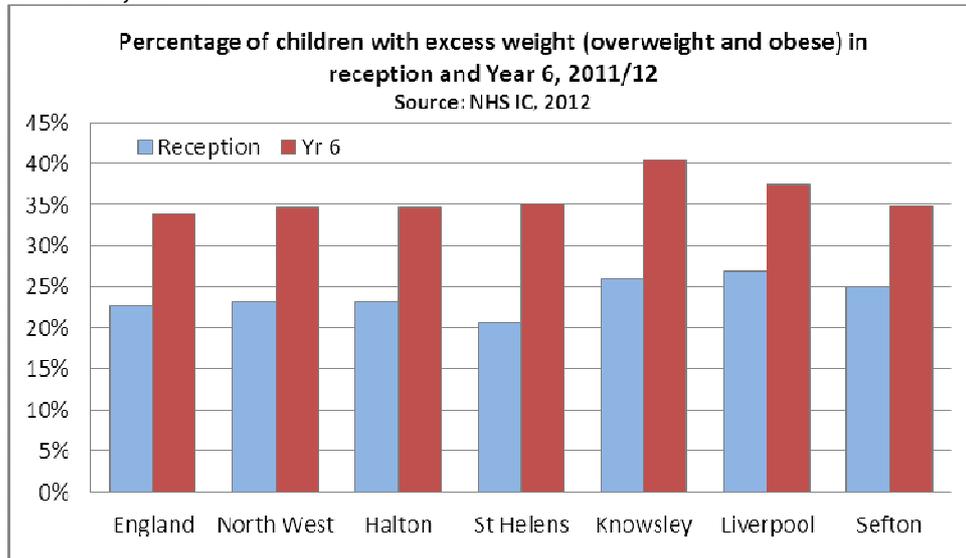
Comparison of percentage of obese children in reception and year 6, 2011/12



The percentage of obese reception year children in Halton was very similar to the England and North West values. The year 6 percentage for Halton was slightly higher than England but lower than the North West.

Halton had the lowest percentage of obese children in year 6 when compared to the rest of the Merseyside cluster.

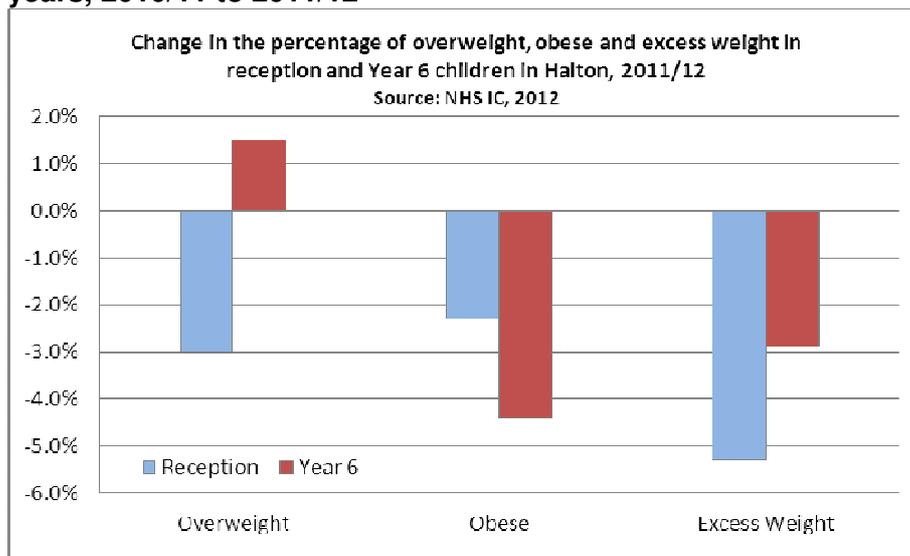
Comparison of excess weight (overweight and obese) in reception and year 6 children, 2011/12



Halton had a higher percentage of children with excess weight for reception and year 6 compared to England, but had the same percentage for both years as the North West. Halton as had a lower percentage of children with excess weight, for both years, when compared to Knowsley, Liverpool and Sefton.

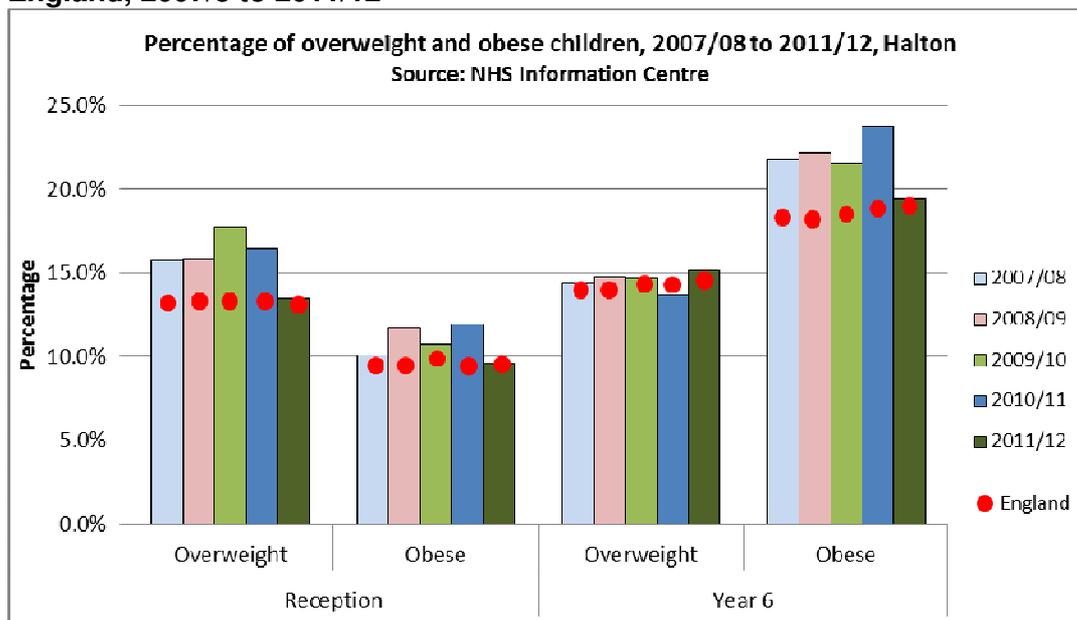
Change in Percentage

Percentage change in overweight, obese and excess weight, for both school years, 2010/11 to 2011/12



The percentage of obese children reduced from 2010/11 to 2011/12 for both school years. The percentage of overweight children in reception also decreased, however for year 6 children the percentage did increase by 1.5%.

Change in percentage of overweight and obese children in Halton, compared to England, 2007/8 to 2011/12



The overweight and obese percentages for reception and the obese percentage for year 6 all reduced in 2011/12, this means that the values are now only slightly higher than the England average.

The year 6 overweight percentage was lower than the England average in 2010/11, however in 2011/12 this percentage increased and is now higher than the England value.

Obesity is a condition where weight gain has got to the point that it poses a serious threat to health. It is measured in terms of a person's body mass index (BMI, see box 1) which is determined both by weight and height. BMI cut-off points have been agreed for obese and overweight adults, but for children the situation is more complex. As a child's BMI varies with age, different cut-off points have to be used to define overweight and obese children depending on age.¹

Box 1: Information on BMI ranges

ADULTS

For adults, the cut off points used are: BMI <20, a person is underweight; BMI 20-25 is the desirable or healthy range; BMI 25-30 is classified as overweight; and BMI 30+ is classified as obese.

CHILDREN

Researchers have used different ways of defining obesity in children. An International Obesity Task Force proposed cut-offs for children at various ages in 2000. Other researchers have used a different approach by selecting a BMI reference point from the past, and comparing the proportion of the population exceeding the threshold now with that in the past. A commonly used reference point for obesity is the BMI threshold above which the top 5% of the BMI range lay in 1990.

During 2011/12, the heights and weights of Halton school children in Reception year and Year 6 were measured and collated. These have since been uploaded anonymously onto the National Child Measurement Programme database, where they were analysed and released in December 2012. The data in this report from this point on is based on the same information but analysed by the Public Health Intelligence Team at a lower geographical level.

Notes on the Data:

- Data at lower geographical levels should be treated with caution as small numbers can lead to rates that are not statistically robust.
- Not all children participated due to absence and/or lack of consent.
- Numbers in analyses may vary as some calculations are based on the school data and others on the child's residence.

¹ Parliamentary Office of Science and Technology, "Post note: Childhood Obesity", SEPTEMBER 2003 (205)

Obesity Levels

BMI scores, and the corresponding p-values, were calculated for each child. The 85th and 95th centile cut-offs were used to establish the child's weight category. In other words, out of that given population, any child with a p-score above the 85th centile (and below than 95th) will have been categorised as overweight and over the 95th centile, obese. Overweight & Obese is therefore any child with a p-score above the 85th percentile. Children with p-values under the 85th centile were considered to have a healthy weight, and children under the 2nd centile were considered to be underweight.

Table 1 shows the percentage of pupils who participated in the heights and weights recording and indicates the level of uptake.

Table 1: Percentage Participation, 2011/12

	Number eligible	Number measured	% measured
Reception	1418	1371	96.7%
Year 6	1347	1249	92.7%
Overall	2765	2620	94.8%

Table 2 shows the provisional percentages of overweight and obese children within Halton. Overweight is classed as being between the 85th-94th centile and obese is =>95th.

Table 2: Percentage of children overweight or obese (p-scores) (school data)

Percentage of pupils with a BMI p-score:	Reception	Year 6
>=0.85 (defined as overweight)	13.5%	15.2%
>=0.95 (defined as obese)	9.6%	19.4%

Table 3 shows the overall percentage of overweight and obese children within Halton, split by male and female. There appears to be a greater proportion of overweight and obese children in Year 6 compared to reception year.

Table 3: Levels of overweight and obese children, split by gender, 2011/12 (school data)

Reception		%
Halton Overweight Males		13.7%
Halton Obese Males		10.0%
Halton Overweight Females		13.3%
Halton Obese Females		9.3%
Year 6		%
Halton Overweight Males		15.9%
Halton Obese Males		20.3%
Halton Overweight Females		14.6%
Halton Obese Females		18.5%

A total of 749 pupils were classed as being overweight or obese, accounting for 28.6% of those measured.

Deprivation

The 2010 Indices of Deprivation provide Lower Super Output Areas (LSOAs) in the country with a score which allows us to measure deprivation in that area. These can then be ranked nationally or locally in order to present a picture of where certain areas sit in comparison to others. Figure 3 shows IMD 2010 overall scores, ranked by national quintiles. Quintile 1 (dark red) is the most deprived and Quintile 5 (dark green) is the least deprived.

Figure 3: Map showing deprivation levels of LSOAs in Halton according to National Quintiles of IMD 2010

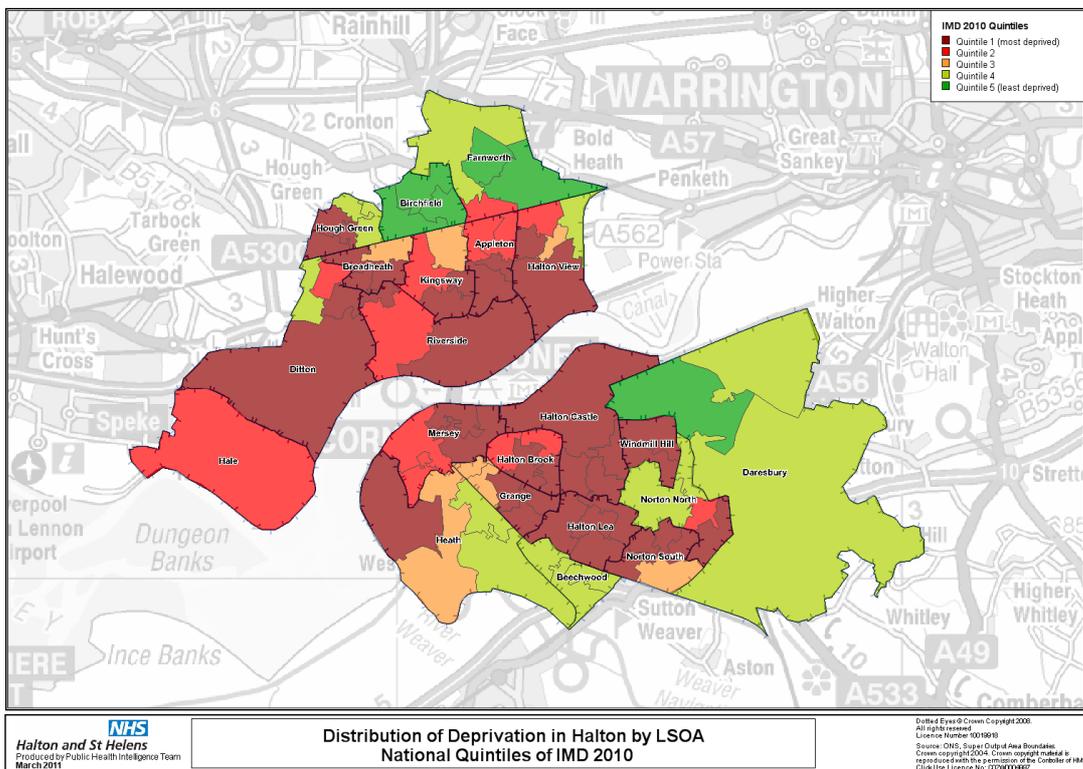
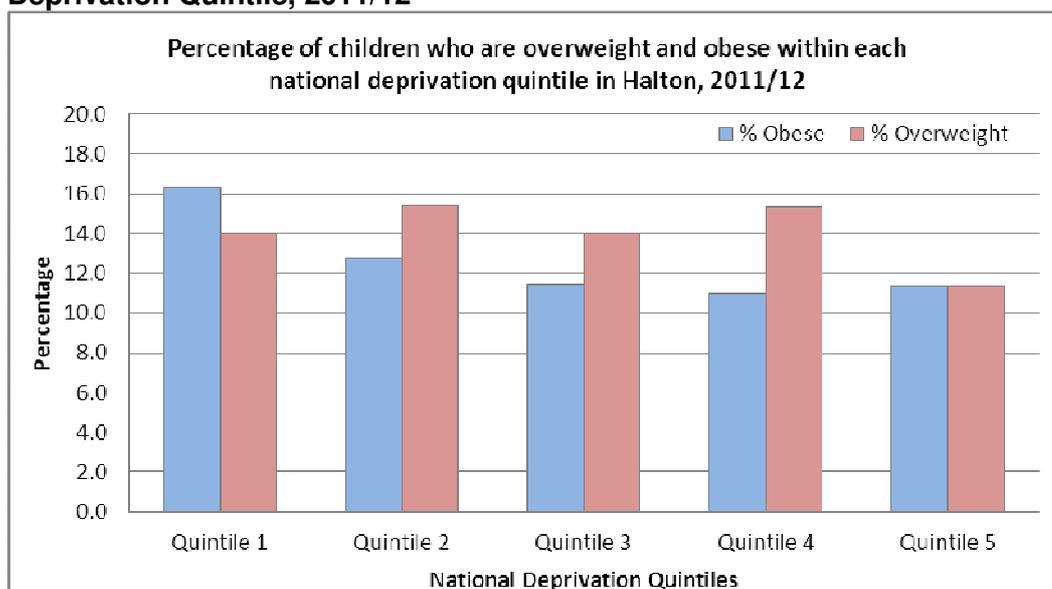


Figure 4: Percentage of overweight and obese children, all years, by National Deprivation Quintile, 2011/12



The chart shows all years all sex overweight and obese percentages for Halton. National Deprivation Quintiles (NDQs) run from 1 to 5, with 1 indicating the most deprived areas (top 20% nationally) and 5 representing the least deprived. NDQs are calculated at LSOA level.

For obese children the highest percentage is observed in quintile 1, followed by quintile 2. However, for overweight children the highest percentage is seen in Quintile 2 followed by Quintile 4.

This suggests that for obese children there is a link between obesity levels and deprivation.

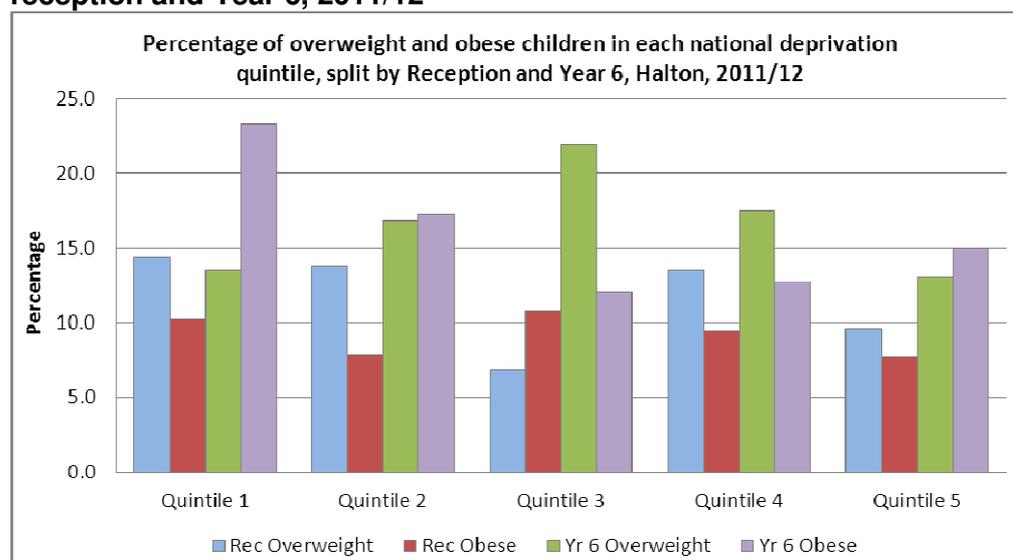
NB: LSOAs were assigned to each child based on their residential postcode. This means that numbers may exclude children who live outside the boundaries of Halton but attend a school in either borough. This may include St Helens, Liverpool, Wigan, Knowsley and Warrington.

Figure 5 shows the percentage of overweight and obese reception and year 6 children by National Deprivation Quintile.

The obese Year 6 percentage is highest in Quintile 1 followed by Quintile 2, as is the reception overweight percentage. However, the reception obese and Year 6 overweight percentages are highest in Quintile 3.

NB: Numbers should be interpreted with caution as only 7 LSOAs in Halton are in the 3rd quintile and only 6 are in the 5th quintile, making the numbers very small and subsequent percentages may be lacking in statistical soundness

Figure 5: Percentage of overweight and obese children by NDQ, split by reception and Year 6, 2011/12



Reach Centre Areas

The children's residential postcodes, which reside in Halton, were then assigned to a Reach Centre Area. There are 8 reach centres in Halton, table 5 below shows the percentage of overweight and obese children within each reach centre area.

Table 5: Percentage of overweight and obese children by Reach Centre Area, 2011/12

Reach Centre	% Overweight	% Obese
All Saints Upton Area Catchment	11.0%	14.9%
Brookvale	15.1%	18.8%
Ditton & Our Lady of Perpetual Succor Area Catchment	16.3%	11.2%
Halton Brook, Castlefields & Astmoor Area Catchment	14.7%	17.4%
Halton Lodge & Runcorn All Saints Area Catchment	17.3%	16.4%
Kingsway Area Catchment	10.3%	12.8%
Warrington Road	10.2%	6.9%
Windmill Hill	17.4%	16.6%

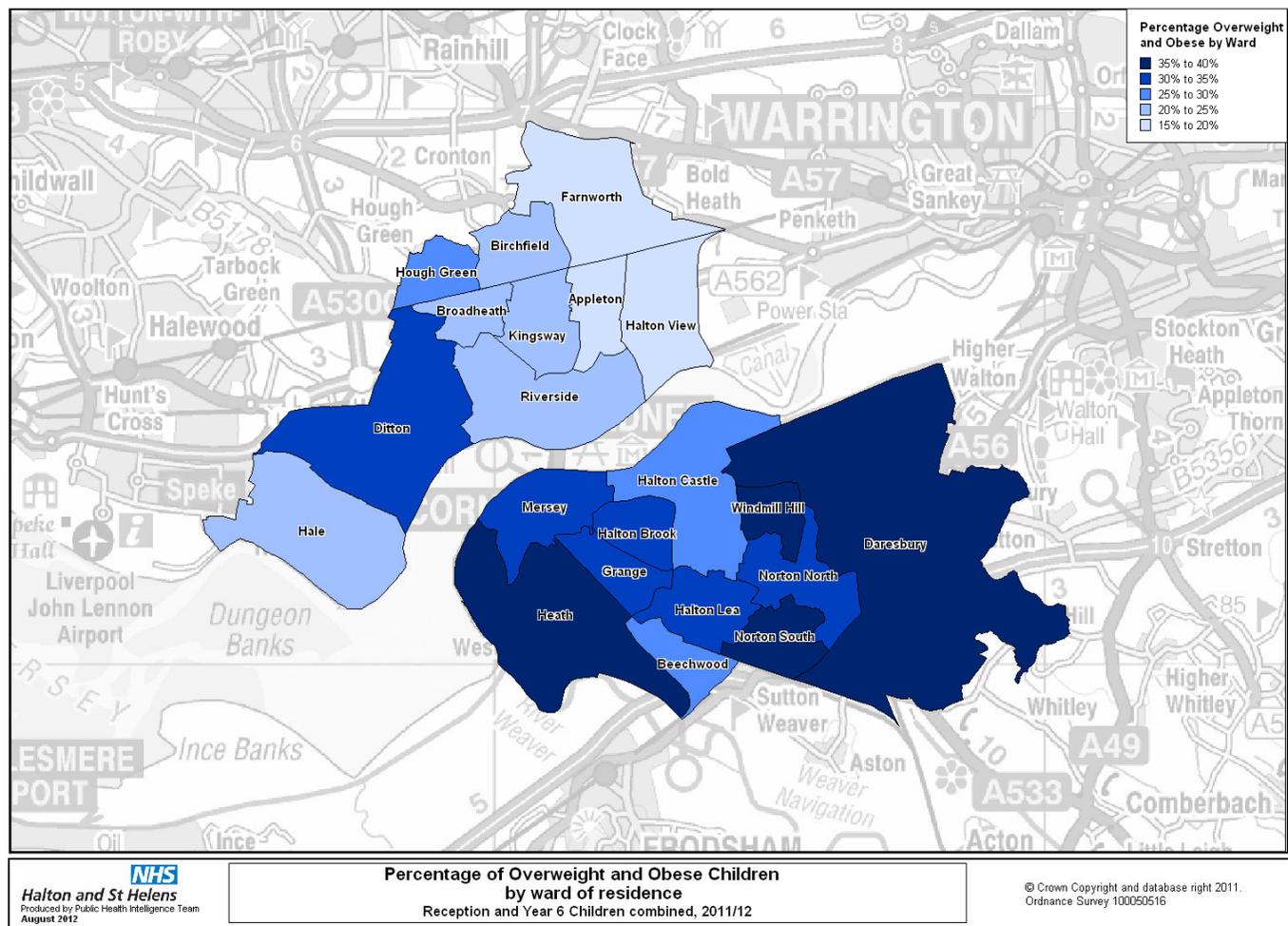
NB: There were 13 postcodes (out of 2588) which weren't assigned to a reach centre area.

The table shows that the highest percentage of overweight children was present in the Windmill Hill area followed by the Halton Lodge & Runcorn All Saints area. With regards to obesity the highest percentage occurred in the Brookvale area followed by the Halton Brook, Castlefields, & Astmoor area.

The Warrington Road reach area had the lowest levels of obese and overweight children.

Figures 6, 7 and 8 show the percentage of overweight and obese children by ward. The dark blue areas indicate higher levels of overweight and obese children among those measured.

Figure 6: Map showing percentage of overweight & obese by ward of residence, Reception and Year 6, Halton, 2011/12



The map shows that the wards with the highest levels of overweight and obese children were Norton South, Windmill Hill, Heath and Daresbury. The wards which contained the lowest percentage of overweight and obese children were Farnworth, Halton View and Appleton.

Figure 7: Map showing percentage of overweight & obese Males by ward of residence, Reception and Year 6, Halton 2011/12

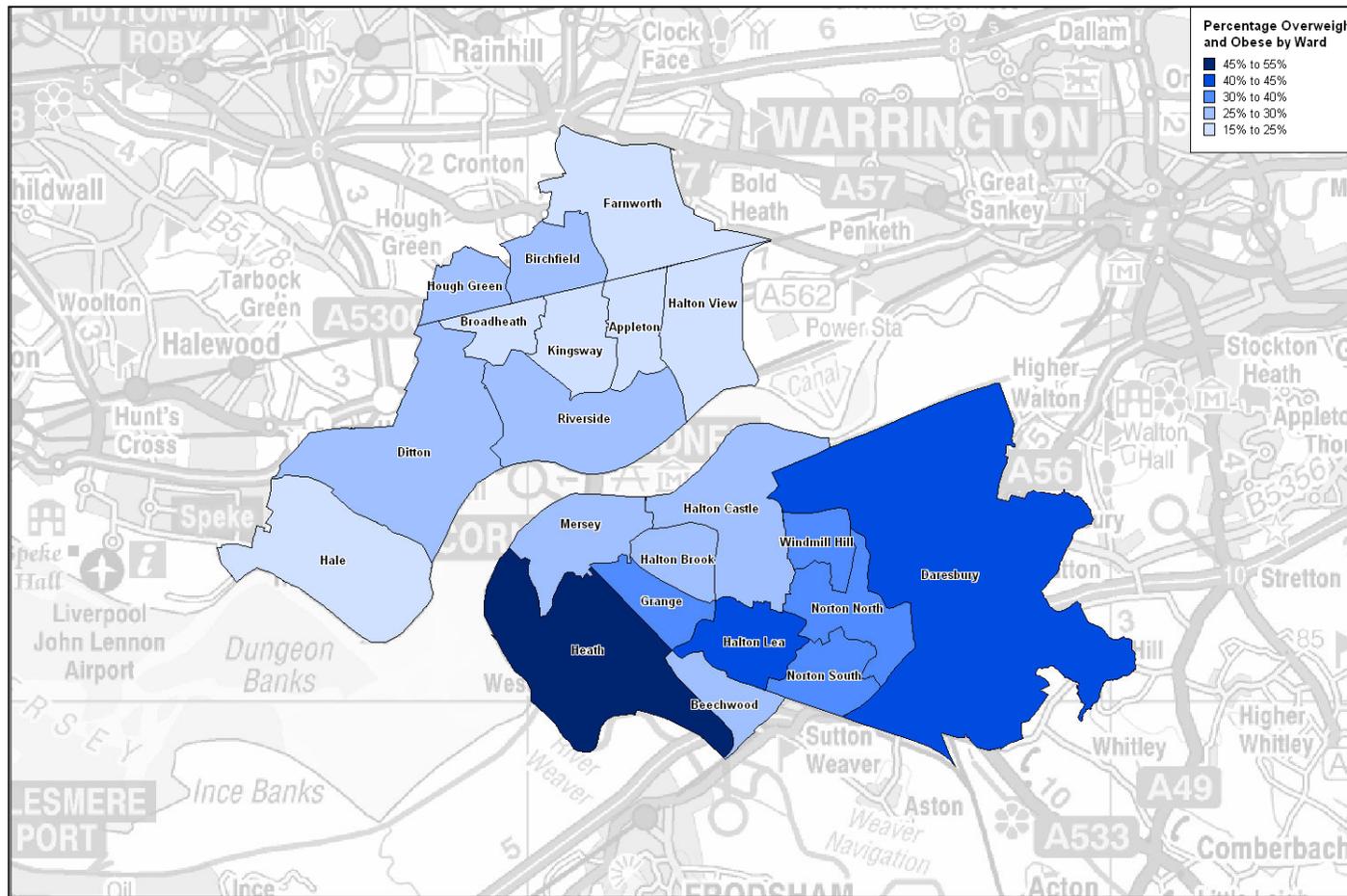


Figure 7 shows that the ward with the highest percentage of overweight and obese males in Halton is Heath (52.3%). Daresbury (40.5%) and Halton Lea (40.9%) also have a high percentage of overweight and obese males.

The wards with the lowest percentage of overweight and obese males are Halton View (17.2%), Appleton (17.8%) and Kingsway (19.1%).

Figure 8: Map showing percentage of overweight & obese Females by ward of residence, Reception and Year 6, Halton 2011/12

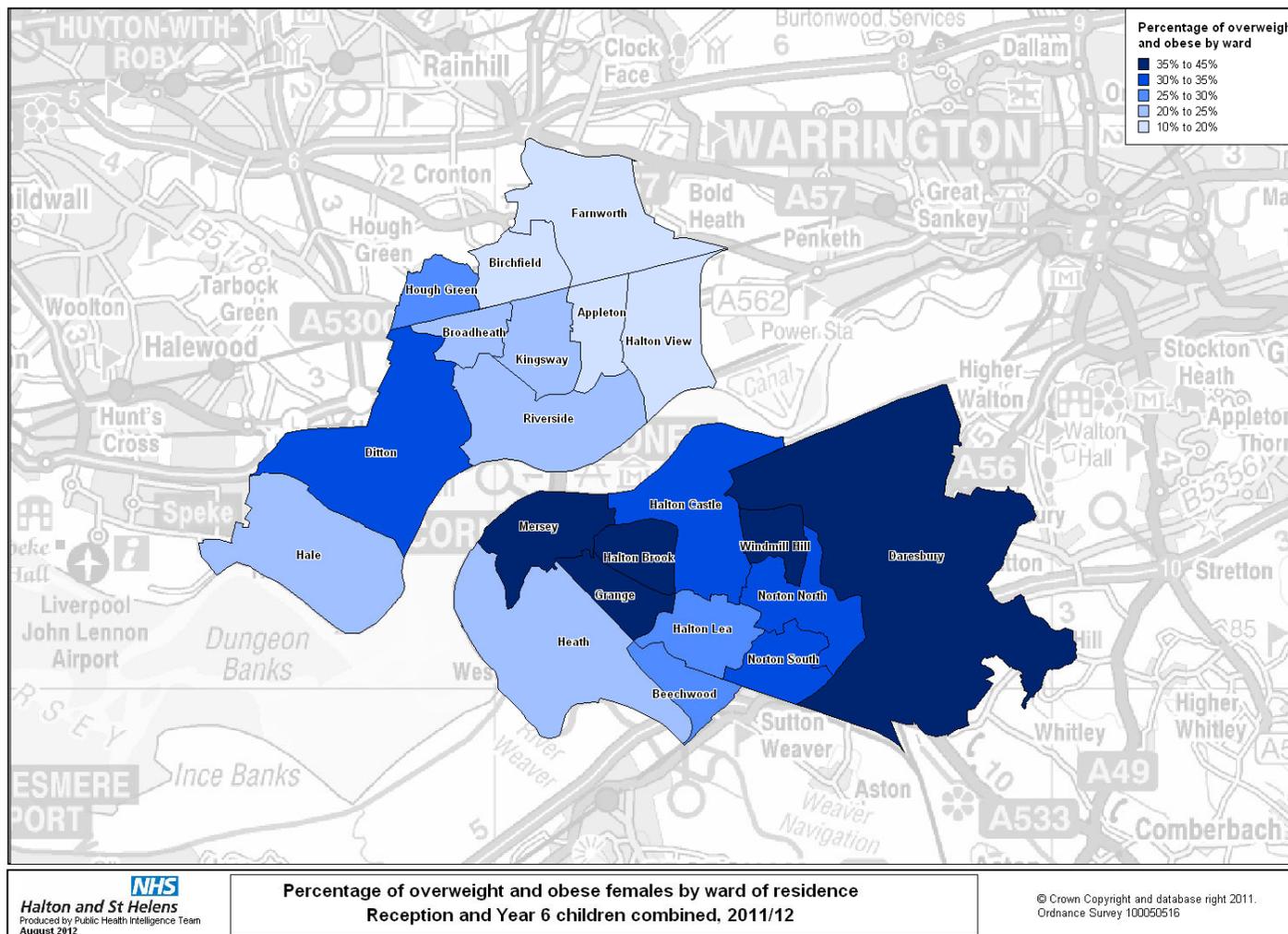
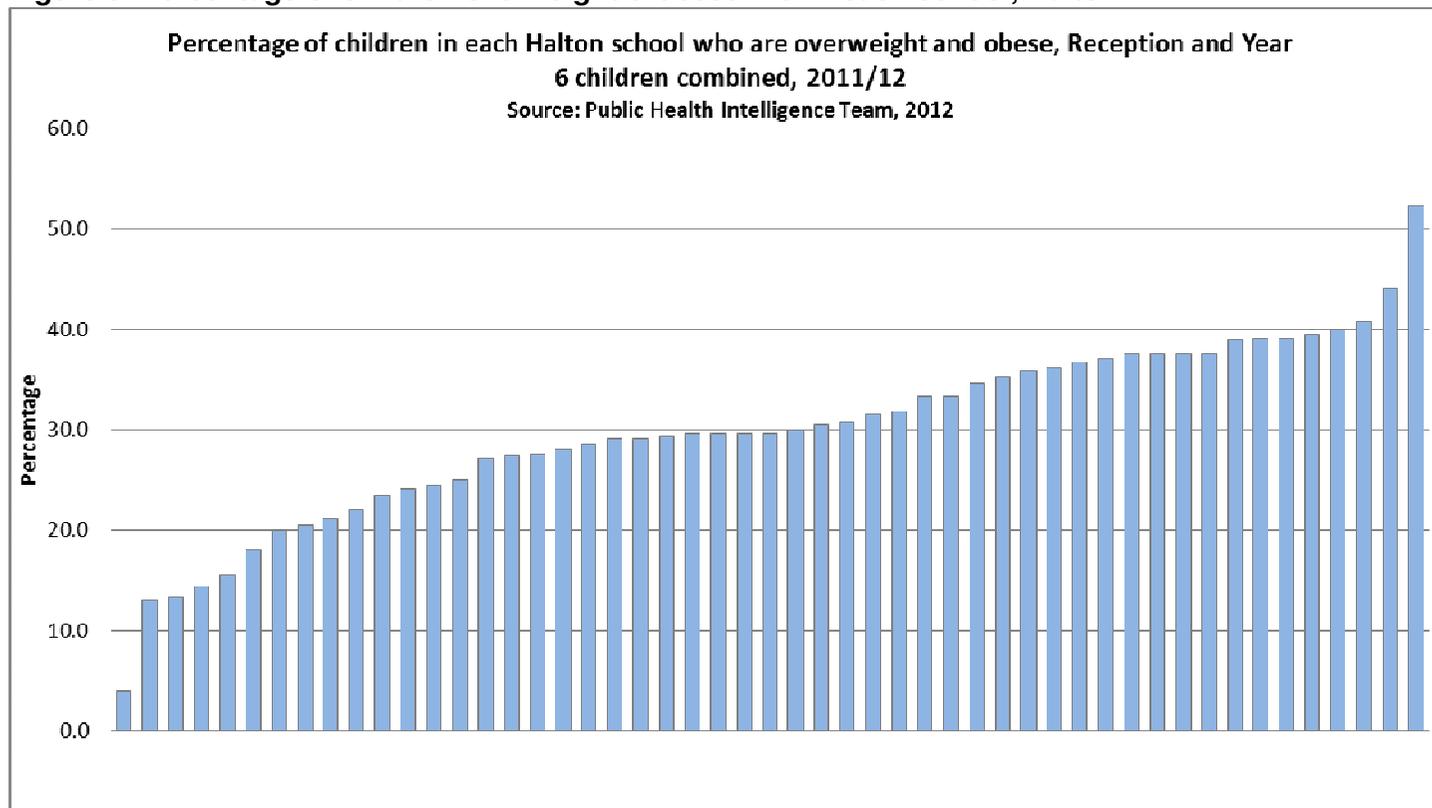


Figure 8 shows that the wards with the highest percentage of overweight and obese females are Windmill Hill (44%), Halton Brook (41.8%), Daresbury (36.1%), Mersey (35.6%) and Grange (35.4%).

The wards with the lowest percentage of overweight and obese females are Farnworth (10.4%), Halton View (17.3%), Appleton (18.3%) and Birchfield (18.4%).

Schools

Figure 9: Percentage of children overweight & obese within each school, Halton ²



² (URN codes relating to each school can be found on Table 6. NB: Care must be taken when interpreting these data as if only a small number of pupils are measured this could lead to misleading results.)