

Childhood Overweight and Obesity Warrington Summary 2018/19

**including trends from the
National Child Measurement Programme**

**Academic Years
2007/08 to 2018/19**

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VERSION CONTROL

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0.1	23/1/2020	First draft
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THE NATIONAL CHILD MEASUREMENT PROGRAMME (NCMP)

INTRODUCTION

Child obesity is a good indicator of adult obesity which can lead to poor health outcomes. The importance of tackling it is described in *Time to solve childhood obesity*¹, the independent report by former Chief Medical Officer (CMO) Professor Dame Sally Davies in 2019:

“Being overweight or obese in childhood has profound impacts on the health and life chances of children. Children living in the most deprived areas are disproportionately affected..... Many children who are obese or overweight suffer physical health issues, including type 2 diabetes, asthma and musculoskeletal pain, and experience mental health problems, such as depression. These affect the quality of our children’s lives, their education and their life chances. Considerable NHS resources are devoted to tackling diseases which are preventable, such as type 2 diabetes and tooth decay. Until recently type 2 diabetes was considered an adult disease. The first cases of the condition were reported in children in England in 2000. Today there are over 100 new diagnoses each year and over 700 children living with the condition. The disease in children is more severe, with rapid progression to complications, such as kidney failure, damage to sight and leg ulcers.”

Local Authorities have a statutory duty to undertake the National Child Measurement Programme annually. The NCMP is delivered by the School Nursing Team at Bridgewater Community Healthcare, as part of the 0-19 years Public Health Integrated Service, commissioned by Warrington Borough Council.

Annually, from the summer of 2006, the heights and weights of Warrington primary school children in Reception (aged 4 and 5) and Year 6 (aged 10 and 11) were measured and collated. This data is uploaded onto the National Childhood Measurement Programme Database, which automatically calculates the BMI for each record. The weight category of each child is determined using age and sex as well as height and weight to take into account different growth patterns in boys and girls at different ages. Each child is classified² as underweight, healthy weight, overweight or obese. In 2017/18 for the first time, a classification of ‘severely obese’ was added, as a subset of obese.

Two indicators relating to the NCMP are included in the Public Health Outcomes Framework (PHOF): indicator 2.6i “the percentage of children aged 4 to 5 classified as overweight or obese” and indicator 2.6ii “the percentage of children aged 10 to 11 classified as overweight or obese”. Therefore, this report includes information on prevalence of overweight/obesity (i.e. any excess weight), as well as obesity. In addition, severe obesity has been analysed.

The data is analysed in a number of ways to enable schools and service providers to evaluate the most appropriate way to address childhood obesity in their area. Prevalence rates are provided by sex, ward and deprivation. It should be used for indicative purposes only, as, due to the relatively small numbers, prevalence figures calculated may not be statistically robust. In the report, prevalence in different sub-groups of children are compared to prevalence in Warrington as a whole. If prevalence in a sub-group is statistically significantly different to Warrington, it will be described as significantly higher/lower. (Significance testing was at the 95% level). If there is quite a large difference in prevalence, but one which is not statistically different, it may be described as substantially different.

Analysis of the NCMP data collected from Warrington schools is used to help inform future commissioning of weight management services for children and healthy lifestyles delivery in schools and the local community.

¹ Available at <https://www.gov.uk/government/publications/time-to-solve-childhood-obesity-cmo-special-report>

² Using the UK 1990 reference population for each age (at 1 month cut offs) and gender, the results were categorised as underweight, healthy weight, overweight or obese. Definitions of overweight and obese are described in the Health and Social Care Information Centre report *National Child Measurement Programme - England, 2014/15 School Year* as the 85th and 95th centiles on the UK BMI 1990 growth charts. (NB This is different to the clinical definition, which uses the 91st and 98th centiles.) The definition used for underweight is below the 2nd centile. In 2017/18, for the first time figures have been published by NHS Digital on the prevalence of ‘severely obese’, defined as above the 99.6th centile. More information is available from NHS Digital at <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2014-15-school-year>

KEY FINDINGS

- The participation rate in Reception in 2018/19 was higher in Warrington (98.5%) than in England (95.3%) and the North West (95.7%). In Year 6, the Warrington rate (97.3%) was also higher than in England (94.5%) and the North West (94.8%). By far the main reason for non-participation was parental opt-out (i.e. a child's parent/carer chooses not to have their child weighed and measured).
- In Reception, almost 1 in 10 children were obese, and almost 1 in 4 were either overweight or obese. 1 in 43 were severely obese.
- In Year 6, approximately 1 in 5 children were obese, and 1 in 3 were either overweight or obese. 1 in 22 were severely obese.
- Prevalence of obesity and prevalence of overweight/obesity in Warrington fluctuate over time, but both Reception and Year 6 have consistently been lower than the North West, and either lower or similar to England (apart from an unusual sharp rise in Reception in 2017/18).
- In 2018/19, obesity prevalence in Year 6 (19.0%) was approximately double that in Reception (9.6%). In England and in the North West, Year 6 prevalence was also about double that in Reception.
- Both nationally and in Warrington, there is a strong correlation between socio-economic deprivation and obesity prevalence.
- Nationally, obesity prevalence is consistently higher in boys than girls, particularly in Year 6. This is also the case in Warrington in Year 6, but in Reception, the boy/girl difference has not been consistent.
- Underweight: 0.5% of Reception and 1.5% of Year 6 children in Warrington were categorised as underweight.

Reception overweight/obese (excess weight)

- In Warrington, overweight/obesity prevalence fluctuates substantially from year to year, mostly between 18% and 23%, apart from an unusual sharp rise in 2017/18 (25.9%). It has generally been lower than the North West, and lower than or similar to England. In 2018/19 it returned to more usual levels (22.9%, i.e. nearly 1 in 4 children), slightly higher than 22.6% in England but lower than 24.4% in the North West.

Reception obese

- In Warrington, obesity prevalence fluctuates from year to year, mostly between 7% and 10%, apart from an unusual sharp rise in 2017/18 (11.5%), and has generally been lower than the North West, and lower than or similar to England. In 2018/19 it returned to more usual levels (9.6%, i.e. about 1 in 10 children), similar to 9.7% in England and lower than 10.6% in the North West.
- Obesity prevalence is higher in more deprived areas; for example in 2018/19 it was 13.7% in the most deprived areas of Warrington, compared to 5.9% in the least deprived areas.
- Latchford East ward was significantly higher than Warrington overall; no ward was significantly lower.

Reception severely obese

- In Warrington, 54 (2.3%) of Reception children were severely obese (i.e. 1 in every 43 children). Prevalence was similar to England (2.4%) and lower than the North West (2.6%).

Year 6 overweight/obese (excess weight)

- Warrington prevalence is consistently and substantially lower than England and the North West. In 2018/19 it was 33.4% (i.e. 1 in 3 children), lower than England (34.3%) and significantly lower than the North West (35.9%).
- In Warrington there was a slight rise in overweight/obesity prevalence from 33.0% in 2017/18 to 33.4% in 2018/19.

Year 6 obese

- Warrington prevalence is consistently lower than England and the North West. In 2018/19 it was 19.0% (i.e. about 1 in 5 children), lower than England (20.2%) and significantly lower than the North West (21.5%).
- In Warrington there was a slight reduction in obesity prevalence from 19.5% in 2017/18 to 19.0% in 2018/19.
- Obesity prevalence is higher in more deprived areas; for example in 2018/19 it was 25.2% in the most deprived areas of Warrington compared to 12.8% in the least deprived.
- Three wards (Great Sankey South, Orford and Poplars & Hulme) were significantly higher than Warrington; Penketh & Cuerdley was significantly lower.

Year 6 severely obese

- In Warrington, 115 (4.6%) of Year 6 children were severely obese (i.e. 1 in every 22 children). Prevalence was slightly higher than England (4.4%) but slightly lower than the North West (4.8%).
- By deprivation, there was an extremely stark difference in prevalence of severe obesity; 9.4% (1 in every 11 children) were severely obese in the most deprived areas of Warrington, compared to only 1.1% in the least deprived.
- Three wards (Great Sankey South, Orford, and Poplars & Hulme) were significantly higher than Warrington; in each ward, approximately 1 in 10 children were severely obese. Of all 115 severely obese Year 6 children in Warrington, 45% lived in these 3 wards. Chapelford & Old Hall was significantly lower than Warrington.

2018/19 RESULTS AND PARTICIPATION RATES

Table 1 shows that Warrington has almost always achieved higher participation rates than the North West and England. Thanks are due to the Bridgewater School Health Team for their efforts in achieving these high participation rates, and to Warrington primary schools for participating in the NCMP program.

Analysis is based on children measured at a Warrington primary school³. In 2018/19 2,363 Reception children and 2,526 Year 6 children were weighed and measured. Table 2 shows the proportion of children in each weight category in 2018/19 for Warrington and England, for boys and girls. Appendices 1 and 2 show the proportion of children in each weight category for Warrington and England, for girls and boys, from 2012/13 to 2018/19.

	2014/15		2015/16		2016/17		2017/18		2018/19	
	R	Y6	R	Y6	R	Y6	R	Y6	R	Y6
Warrington	95.3%	95.5%	98.9%	97.7%	97.6%	96.0%	99.1%	97.3%	98.5%	97.3%
North West	95.7%	94.2%	96.3%	94.6%	95.7%	94.0%	95.5%	94.7%	95.7%	94.8%
England	95.5%	94.0%	95.6%	94.0%	95.8%	94.2%	95.2%	94.3%	95.3%	94.5%

The main reason for non-participation is parental opt-out (i.e. a child's parent/carer chooses not to have their child weighed and measured). In 2018/19, 17 Reception and 53 Year 6 children were not measured for this reason. This is 0.7% of eligible Reception children and 2.0% of eligible Year 6 children.

Table 2: National Child Measurement Program 2018/19, Warrington and England

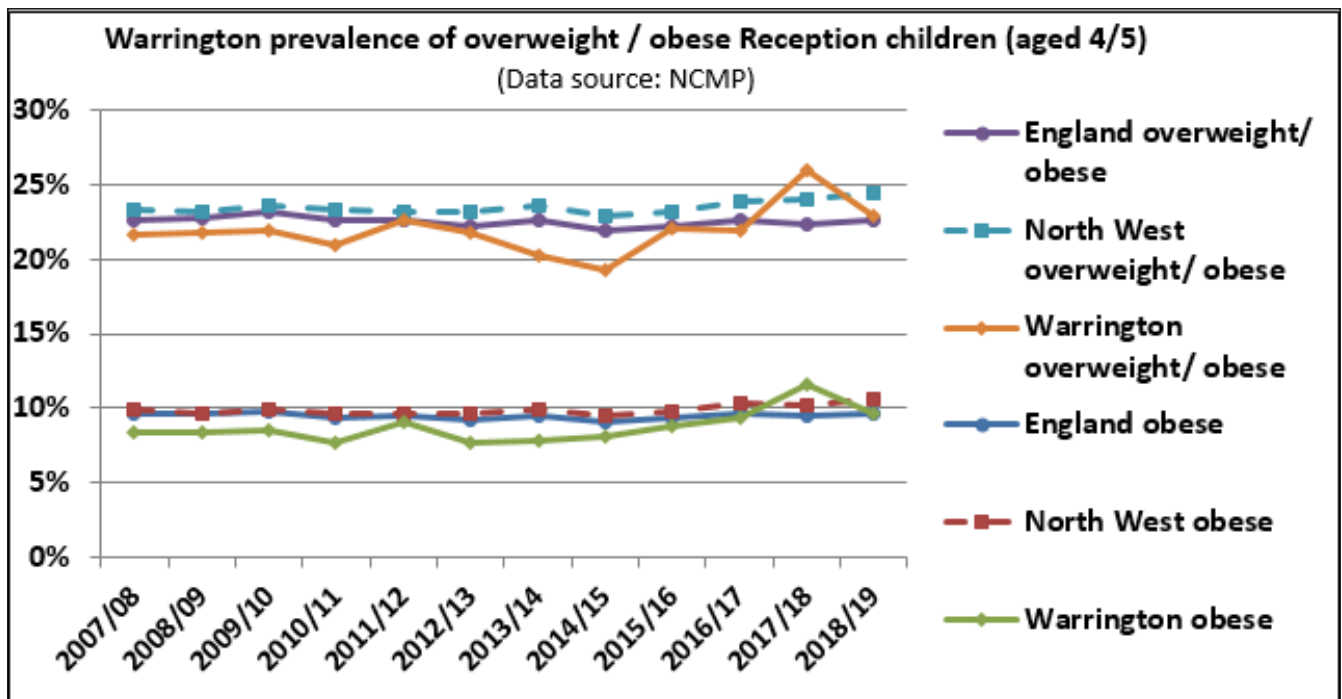
		Under-weight	Healthy Weight	Over-weight	Obese	No. measured	Overweight / Obese	Severely Obese
RECEPTION, 2018/19								
Warrington 2018/19	Boys	0.1%	76.6%	13.8%	9.6%	1,140	23.3%	1.7%
	Girls	0.9%	76.7%	12.7%	9.7%	1,223	22.4%	2.9%
	Both	0.5%	76.6%	13.2%	9.6%	2,363	22.9%	2.3%
England 2018/19	Boys	1.2%	75.8%	13.0%	10.0%	304,820	23.0%	2.7%
	Girls	0.7%	77.2%	12.8%	9.4%	292,992	22.2%	2.2%
	Both	1.0%	76.5%	12.9%	9.7%	597,812	22.6%	2.4%
YEAR 6, 2018/19								
Warrington 2018/19	Boys	1.3%	63.2%	14.0%	21.5%	1,264	35.5%	5.4%
	Girls	1.7%	67.0%	14.8%	16.5%	1,262	31.3%	3.7%
	Both	1.5%	65.1%	14.4%	19.0%	2,526	33.4%	4.6%
England 2017/18	Boys	1.2%	62.1%	14.2%	22.5%	305,756	36.7%	5.2%
	Girls	1.6%	66.6%	14.0%	17.8%	294,693	31.8%	3.4%
	Both	1.4%	64.3%	14.1%	20.2%	600,449	34.3%	4.4%

NB Severely obese are a subset of obese, i.e. are also counted in the obese category.

³ Most children attending Warrington schools also live within Warrington borough. However, this data also includes children who attend a Warrington primary but live outside Warrington, but excludes children who live in Warrington borough but attend a school outside Warrington. Therefore some of these results may be slightly different to those published elsewhere, e.g. in the Public Health Outcomes Framework (PHOF) which are calculated based on where a child lives, rather than where they go to school.

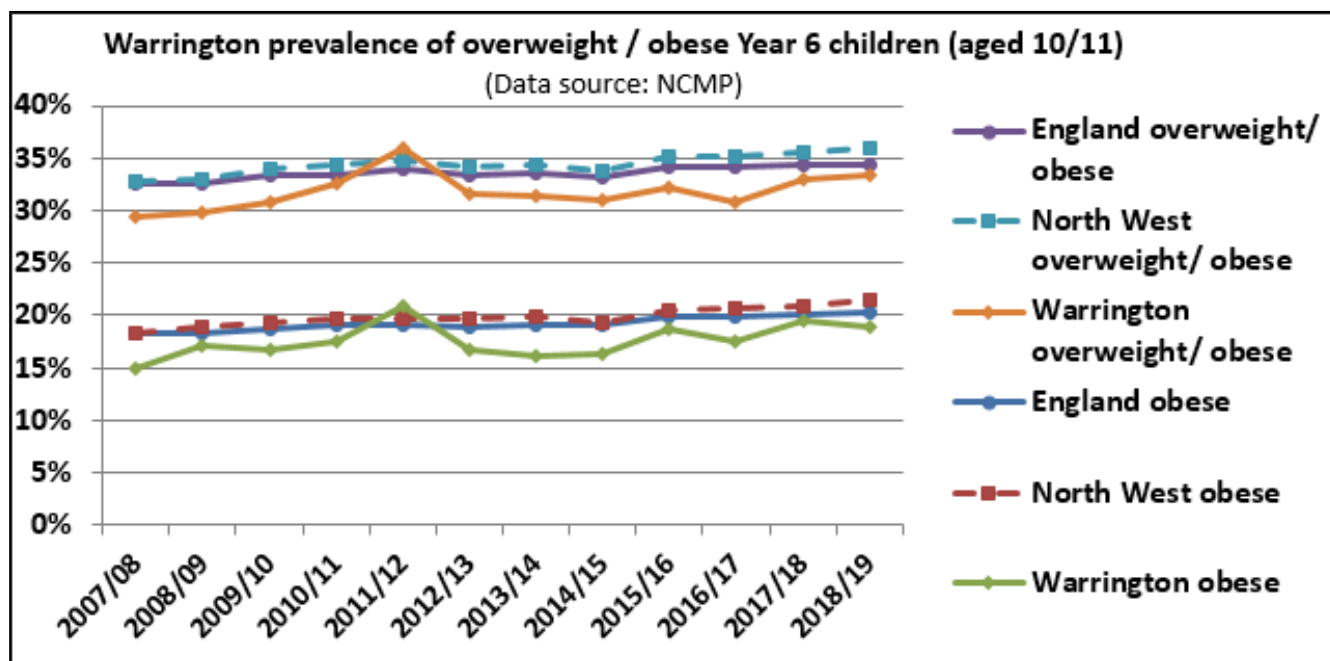
TRENDS IN WARRINGTON, NORTH WEST & ENGLAND: RECEPTION (aged 4/5)

- In 2018/19, out of a total of 2,363 Reception children measured, 12 were categorised as underweight, 1,811 were a healthy weight, 312 were overweight, and a further 228 were obese (54 of whom were categorised as severely obese).
- This means that almost 1 in 10 Reception children were obese, and almost 1 in 4 were either overweight or obese. 1 in 43 were severely obese.
- Prevalence of obesity and prevalence of overweight/obesity in Warrington have almost always been lower than the North West, and either lower or similar to England (apart from an unusual sharp rise in 2017/18).
- Overweight/obesity prevalence in Warrington has fluctuated substantially from year to year, mostly between 18% and 23%, apart from an unusual sharp rise in in 2017/18 (25.9%). In 2018/19 it returned to more usual levels (22.9%, i.e. nearly 1 in 4 children), slightly higher than 22.6% in England but lower than 24.4% in the North West.
- Obesity prevalence in Warrington has fluctuated from year to year, mostly between 7% and 10%, apart from an unusual sharp rise in 2017/18 (11.5%). In 2018/19 it returned to more usual levels (9.6%, i.e. about 1 in 10 children), similar to 9.7% in England and lower than 10.6% in the North West.
- Severe obesity: 54 children (2.3%) were severely obese, similar to England (2.4%) and lower than the North West (2.6%).
- Warrington was not statistically significantly different to England or the North West for overweight/obesity, for obesity or for severe obesity.
- Underweight: in Warrington 0.5% (12 children) were underweight, lower than England (1.0%).



TRENDS IN WARRINGTON, NORTH WEST & ENGLAND: YEAR 6 (aged 10/11)

- In 2018/19, out of a total of 2,526 Year 6 children measured, 38 were categorised as underweight, 1,644 were a healthy weight, 364 were overweight, and a further 480 were obese (115 of whom were categorised as severely obese).
- This means that approximately 1 in 5 children in Year 6 were obese, and 1 in 3 were either overweight or obese. 1 in 22 were severely obese.
- Prevalence of obesity, and prevalence of overweight/obesity in Warrington fluctuate over time, but have consistently been lower (except in 2011/12) than the North West and England.
- Both in Warrington and in England, obesity prevalence in Year 6 is roughly twice as high as in Reception.
- From 2017/18 to 2018/19 there was a slight reduction in Warrington in obesity prevalence (from 19.5% to 19.0%), and a slight rise in overweight/obesity prevalence (from 33.0% to 33.4%).
- Obesity prevalence: Warrington (19.0%) was lower than England (20.2%) and significantly lower than the North West (21.5%).
- Obesity/overweight prevalence: Warrington (33.4%) was lower than England (34.3%) and significantly lower than the North West (35.9%).
- Severe obesity: in Warrington, of the obese children, 115 (4.6%) were categorised as severely obese, slightly higher than England (4.4%), but slightly lower than the North West (4.8%).
- Underweight: in Warrington 1.5% (38 children) were underweight, similar to England (1.4%), but higher than the North West (1.1%).



TRENDS IN WARRINGTON, GIRLS AND BOYS, RECEPTION

Reception (aged 4/5): Overweight/obesity

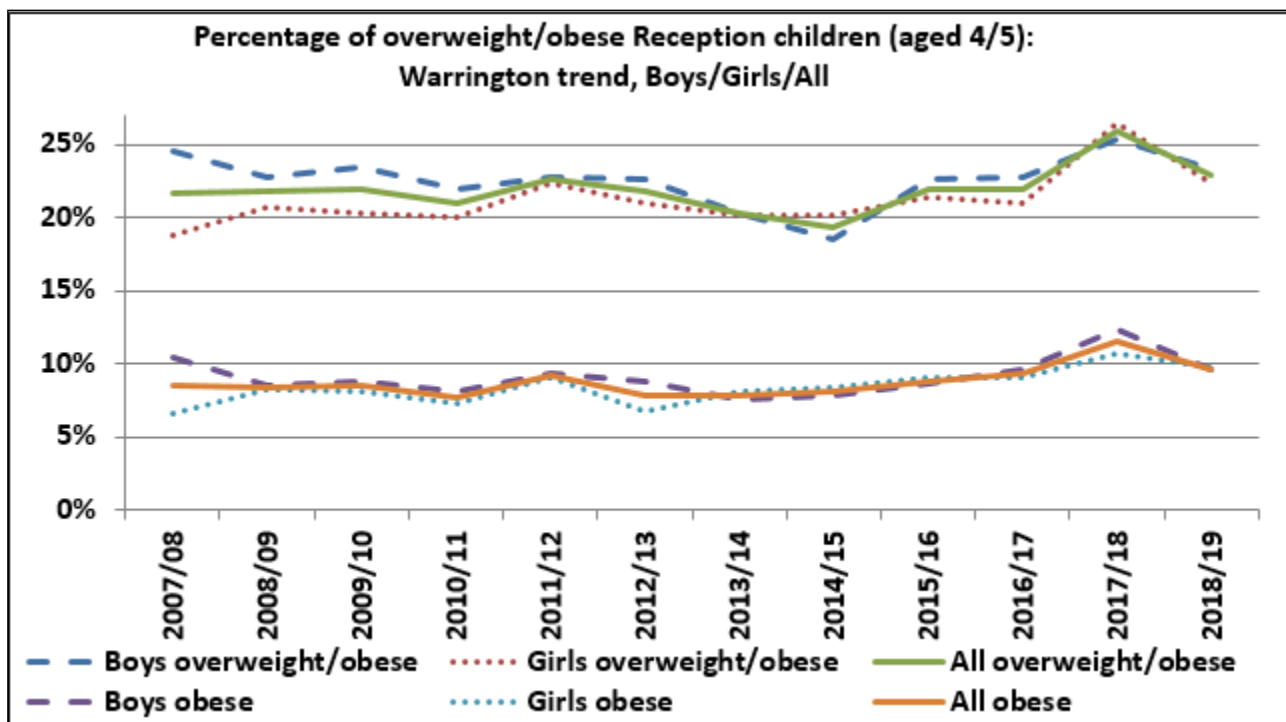
- As the chart shows, in Warrington there is substantial fluctuation from year to year, mostly between 18% and 23%, apart from an unusual sharp rise in 2017/18 (25.9%). In 2018/19 it returned to more usual levels (22.9%), slightly higher than 22.6% in England but lower than 24.4% in the North West.
- Generally, prevalence is often slightly higher in boys than girls (a pattern also seen nationally).
- From 2017/18 to 2018/19, prevalence of overweight/obesity returned to more usual levels in girls (from 26.5% to 22.4%), and in boys (from 25.3% to 23.3%).
- There was a slight increase in England in both girls (from 21.8% to 22.2%) and boys (from 22.9% to 23.0%).

Reception (aged 4/5): Obesity

- In Warrington obesity prevalence fluctuates from year to year, mostly between 7% and 10%. However, there was an unusual sharp rise in 2017/18 (11.5%), but in 2018/19 it has returned to more usual levels (9.7%).
- In the past few years, prevalence has been quite similar, with a slight upward trend, in both boys and girls.
- From 2017/18 to 2018/19, prevalence of overweight/obesity returned to more usual levels in boys (from 12.3% to 9.6%), and in girls (from 10.8% to 9.7%).
- There was a slight increase in England in both boys (from 9.9% to 10.0%) and girls (from 9.1% to 9.4%).

Reception (aged 4/5): Severe Obesity

- In 2018/19, a lower proportion of boys (1.7%) than girls (2.9%) were severely obese, although this difference was not statistically significant.



TRENDS IN WARRINGTON, GIRLS AND BOYS, YEAR 6

Year 6 (aged 10/11): Overweight/obesity

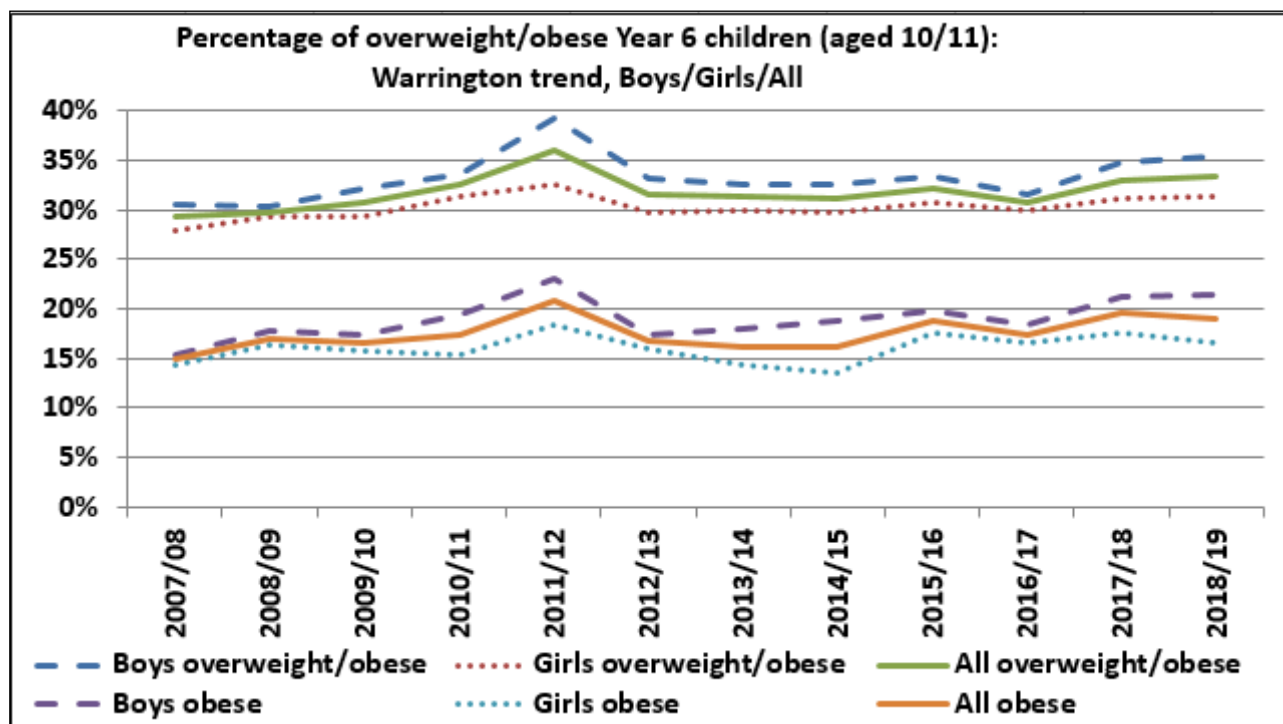
- There was a slight rise in overweight/obesity prevalence in Warrington, from 33.0% in 2017/18 to 33.4% in 2018/19.
- In Warrington there is substantial fluctuation from year to year, but Warrington prevalence is consistently and substantially lower than England for both boys and girls. In 2018/19 it was 33.4% (i.e. 1 in 3 children), lower than England (34.3%) and significantly lower than the North West (35.9%).
- Since 2012/13 prevalence of overweight/obesity in Warrington has been relatively stable, apart from increasing substantially in boys over the past 2 years, from 31.6% in 2016/17 to 35.5% in 2018/19. Despite this increase, Warrington prevalence was still lower than England for both boys and girls.
- Prevalence is consistently higher in boys than in girls (a pattern also seen nationally). In 2018/19, prevalence in Warrington in boys was 35.5% (36.7% in England), and 31.3% in girls (31.8% in England).

Year 6 (aged 10/11): Obesity

- There was a slight drop in overweight/obesity prevalence in Warrington from 19.5% 2017/18 to 19.0% in 2018/19.
- Warrington prevalence is consistently lower than England in both boys and girls.
- Although there is substantial fluctuation from year to year, in Warrington obesity prevalence in boys has increased substantially in recent years (from 17.3% in 2012/13 to 21.5% in 2018/19). In comparison, across England it rose from 20.4% to 22.5%.
- In Warrington, over the same time period, from 2012/13 to 2018/19, prevalence in girls fluctuated from year to year between 13.6% and 17.6%, and in 2018/19 was 16.5% (17.8% in England).
- Prevalence is consistently higher in boys than in girls (a pattern also seen nationally); in Warrington in 2018/19 it was significantly higher.

Year 6 (aged 10/11): Severe Obesity

- A higher proportion of boys (5.4%) than girls (3.7%) were severely obese, although this difference was not statistically significant.



CHILD OBESITY PREVALENCE AND ETHNICITY

Nationally, significant differences in obesity prevalence are found in different ethnic groups. (More information is contained in the NHS Digital publication⁴ *National Child Measurement Programme - England, 2018-19*.)

Across England, in Reception in 2018/19, obesity prevalence was highest (16.1%) in Black ethnic groups (Black African, Black Caribbean, and Other Black categories combined), and lowest in Chinese (6.4%) and mixed white/Asian (6.5%) children.

In Year 6, obesity prevalence was highest (28.9%) in children in Black ethnic groups (Black African, Black Caribbean, and Other Black), and lowest in Irish (16.2%), Mixed White/Asian (18.0%) and Chinese (18.7%) children. (NB There is debate over the validity of using the 1990 growth charts to categorise some ethnic groups).

In Warrington, there are so few children in most ethnic groups (other than White British) that no significant differences can be seen, and the small number of children in most ethnic groups does not produce a robust statistical analysis.

In 2018/19, 2122 out of 2363 (90%) measured Reception children, and 2278 out of 2526 (90%) measured Year 6 children, had their ethnicity recorded as White (this includes 'White British', 'White Irish', 'White Irish Traveller', 'White Romany' and 'Other White'). The next biggest NCMP ethnic category in Reception was 'Mixed' (98), then 'Asian' (77); in Year 6 it was 'Asian' (73), then 'Mixed' (61).

CHILD OBESITY PREVALENCE AND SOCIO-ECONOMIC DEPRIVATION

Nationally, there is a strong correlation between socio-economic deprivation⁵ and obesity prevalence. The following four charts show obesity prevalence, and prevalence of severe obesity, in deprivation deciles across England. In both age groups, the slope of inequality between more and less deprived areas can clearly be seen, with higher obesity prevalence in the most deprived areas.

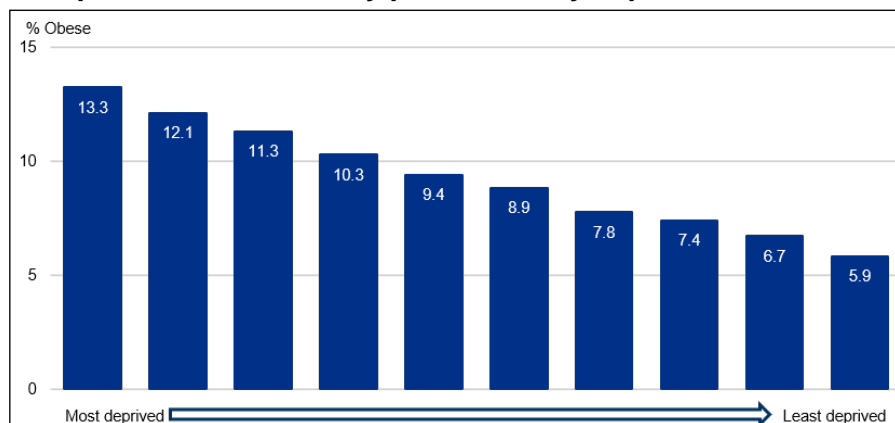
Nationally, the gap between the most and least deprived areas has gradually widened over time. In Reception, this is due to obesity prevalence steadily increasing in the most deprived areas and reducing in the least deprived. In Year 6, it is due to obesity prevalence increasing in the most deprived areas and remaining fairly static in the least deprived.

⁴ Available at <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2018-19-school-year>

⁵ The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small geographical areas (lower super output areas) in England. IMD deciles are calculated by ranking the 32,844 small areas in England from most deprived to least deprived and dividing them into 10 equal groups. These range from the *most* deprived 10 percent of small areas nationally (Decile 1) to the *least* deprived 10 percent (Decile 10). Children's records were allocated to a decile based on their home postcode. Further information is available at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

CHILD OBESITY PREVALENCE AND SOCIO-ECONOMIC DEPRIVATION - ENGLAND

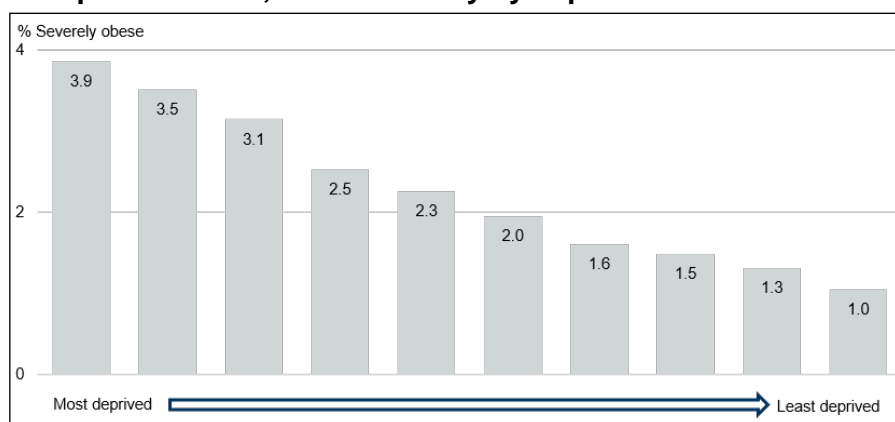
Reception 2018/19, obesity prevalence by deprivation



In all 4 charts, the steady slope of inequality is very clearly seen at a national level.

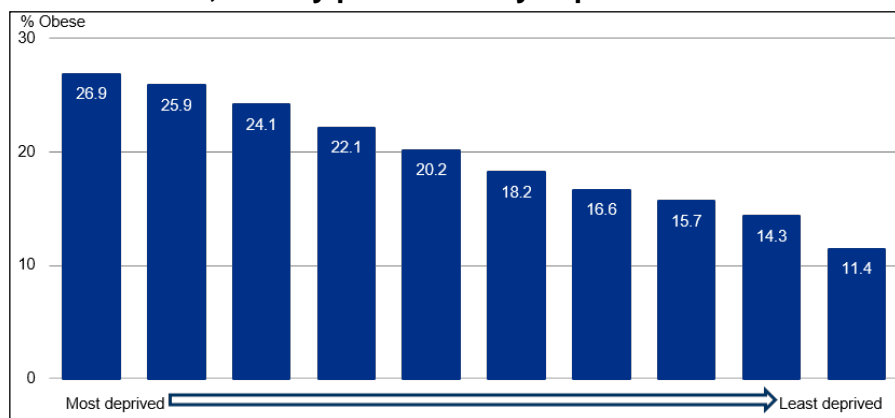
Obesity prevalence was over twice as high for children living in the most deprived areas (13.3%) than for children living in the least deprived areas (5.9%).

Reception 2018/19, severe obesity by deprivation



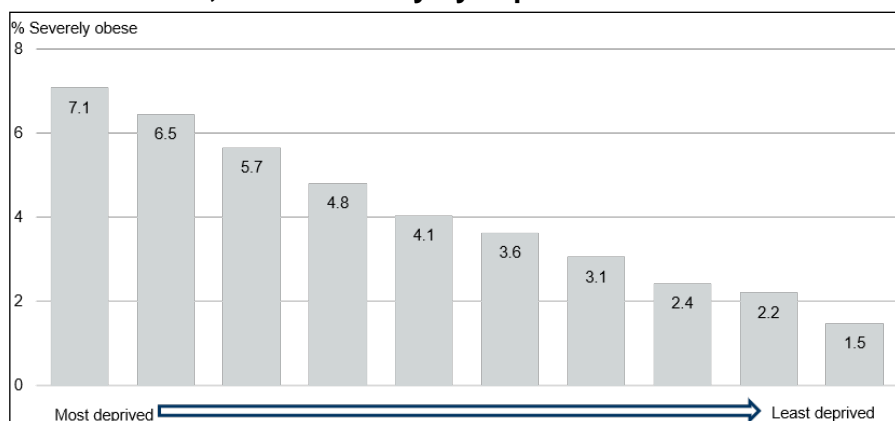
Severe obesity prevalence was almost four times as high for children living in the most deprived areas (3.9%) than for children living in the least deprived areas (1.0%).

Year 6 2018/19, obesity prevalence by deprivation



Obesity prevalence was over twice as high for children living in the most deprived areas (26.9%) than for children living the least deprived areas (11.4%).

Year 6 2018/19, severe obesity by deprivation

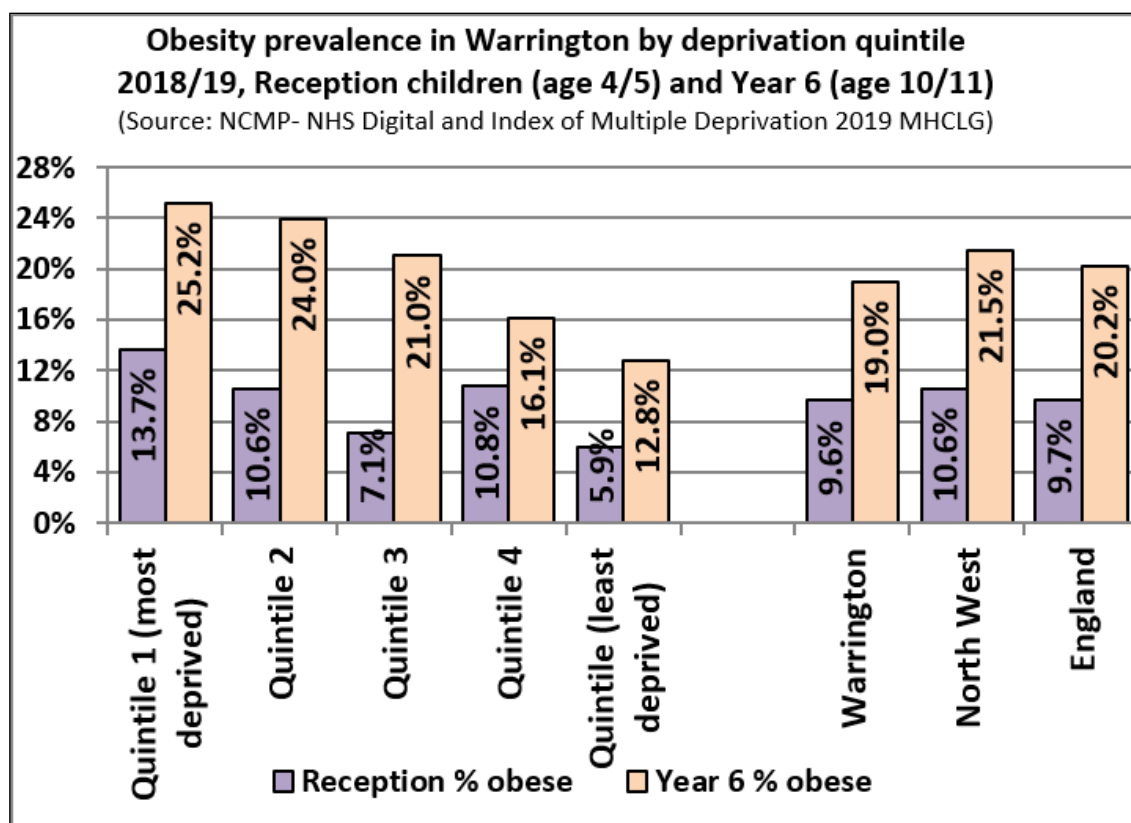


Severe obesity prevalence was over four times as high for children living in the most deprived areas (7.1% and 1.5% respectively).

Data source: *National Child Measurement Programme England, 2018/19 school year. Copyright © 2019, NHS Digital.*

Obesity prevalence in Warrington Reception and Year 6 (2018/19), by socio-economic deprivation

- The correlation with deprivation can also be seen in Warrington, with generally higher prevalence in more deprived areas. Analysis of Warrington data uses deprivation quintile, where areas have been split into 5 groups (rather than the 10 groups used in national analysis), Quintile 1 being the most deprived and Quintile 5 the least deprived. Children’s records were allocated to a quintile based on their home postcode. Map 1 shows the spread of deprivation across Warrington.
- In Year 6 a clear slope of inequality exists; obesity prevalence is highest (25.2%) in Quintile 1 (most deprived) and gradually reduces by quintile to 12.8% in Quintile 5 (least deprived).
- In Reception, there is not such an obvious pattern, although obesity prevalence is highest in Quintile 1 (13.7%) and lowest in Quintile 5 (5.9%).
- In almost all quintiles, obesity prevalence in Year 6 is almost, or more than, double the prevalence in Reception.



Severe obesity prevalence in Warrington Reception and Year 6 (2018/19), by deprivation

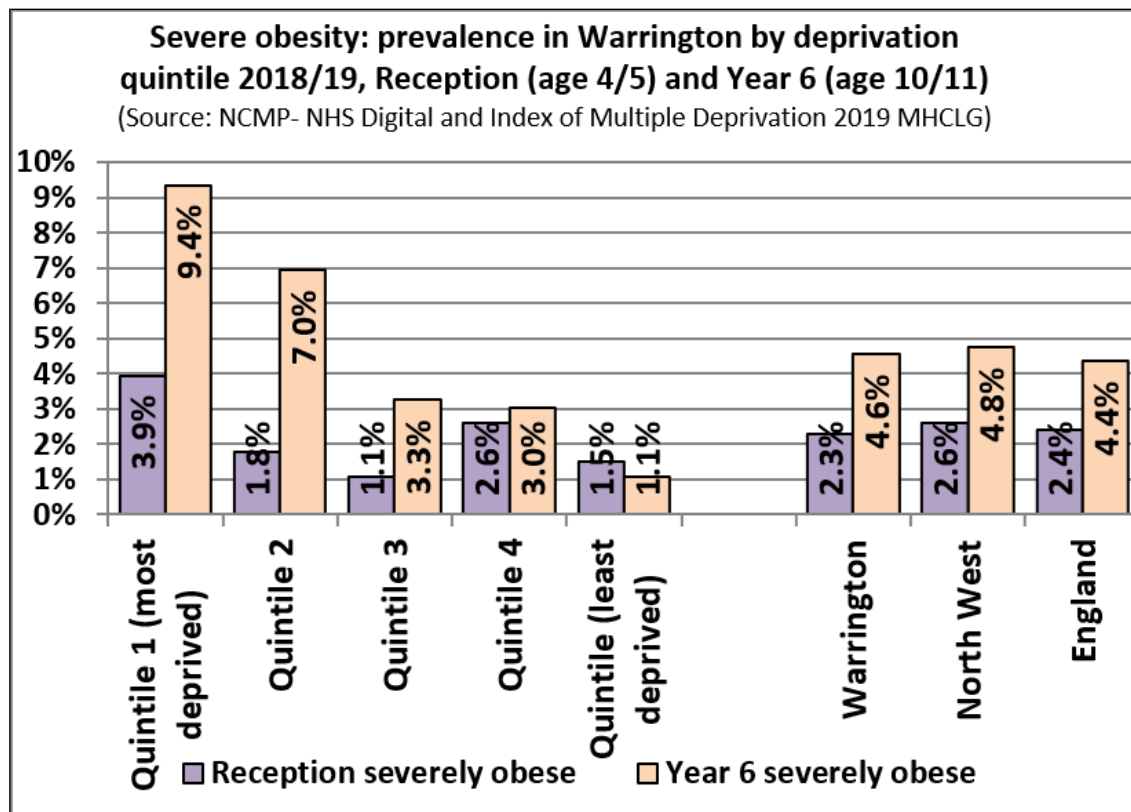
In 2017/18, for the first time figures were published by NHS Digital on the prevalence of ‘severe obesity’, defined as above the 99.6th centile⁶

Reception:

- In Warrington, 2.3% of Reception children were severely obese, slightly lower than England (2.4%) and the North West (2.6%).
- Prevalence of severe obesity was 3.9% in Quintile 1 (most deprived), compared to between 1.1% and 2.6% in the other four quintiles.

Year 6:

- In Warrington, 4.6% of Year 6 children were severely obese, slightly higher than England (4.4%) but slightly lower than the North West (4.8%).
- There was a very stark difference in prevalence of severe obesity between deprivation quintiles; 9.4% in Quintile 1, 7.0% in Quintile 2, 3.3% in Quintile 3, 3.0% in Quintile 4, and only 1.1% in Quintile 5 (least deprived). In Quintile 1, this means that almost 1 in every 11 Year 6 children were severely obese.
- In the more deprived quintiles (Q1 and Q2), prevalence of severe obesity was much higher in Year 6 than in Reception, e.g. in Quintile 1, 9.4% of Year 6 were severely obese compared to 3.9% of Reception.

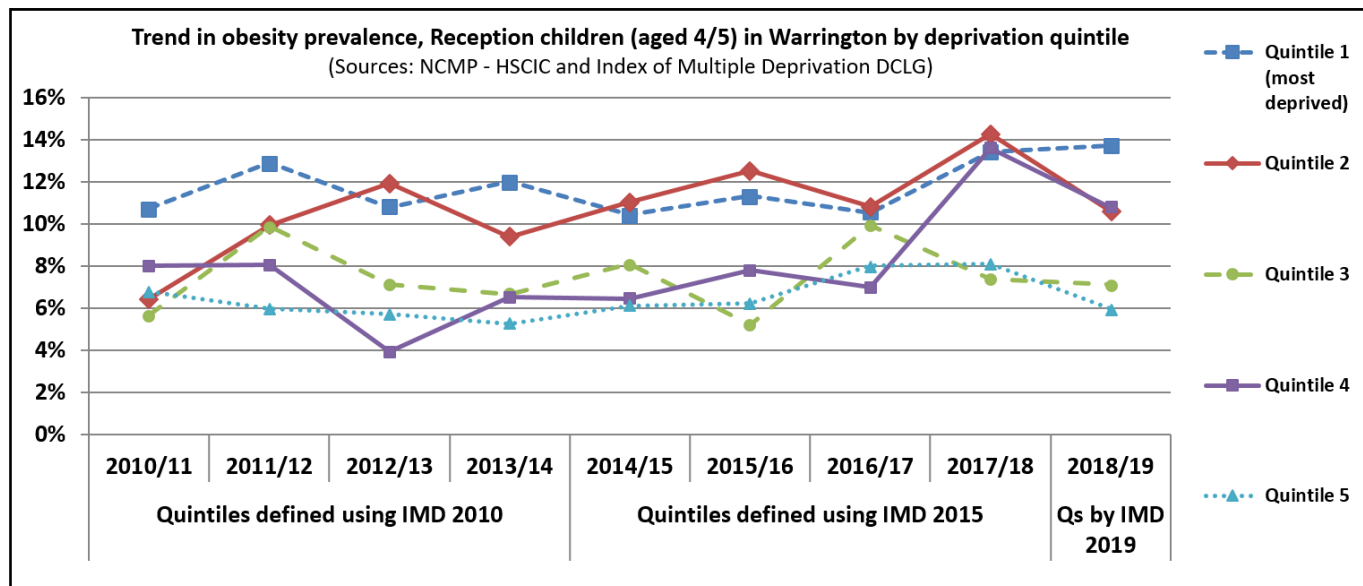


⁶ The 99.6th centile line on the 1990 growth charts is the line above which only 0.4% of the children measured to develop the charts lay (i.e. only 4 children in every 1000 were classified as severely obese at the time the growth charts were produced).

Child obesity and socio-economic deprivation – Warrington trend

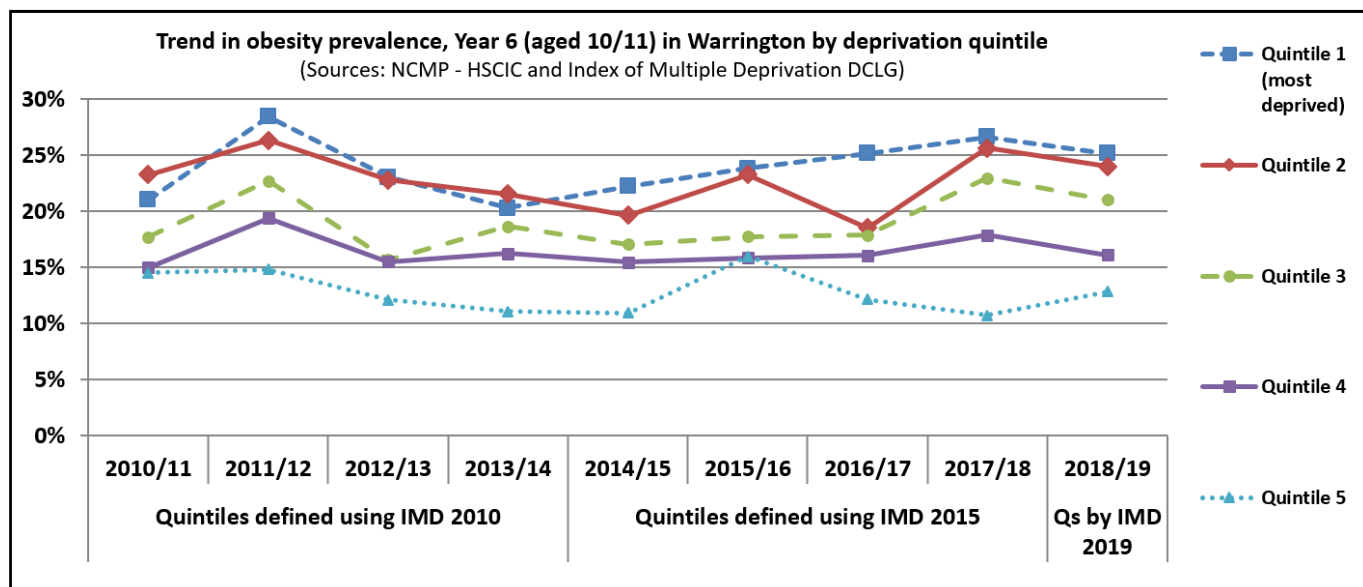
Reception: Trend in obesity prevalence by socio-economic deprivation⁷

- Prevalence fluctuates substantially from year to year, but in general, the more deprived quintiles (Q1 and Q2) have higher prevalence than the less deprived quintiles (Q3, Q4 and Q5), although Q4 had unusually high prevalence in 2017/18.
- There is so much fluctuation in each quintile from year to year that it is difficult to determine whether the gap between most and least deprived areas is widening, or narrowing, or is stable.



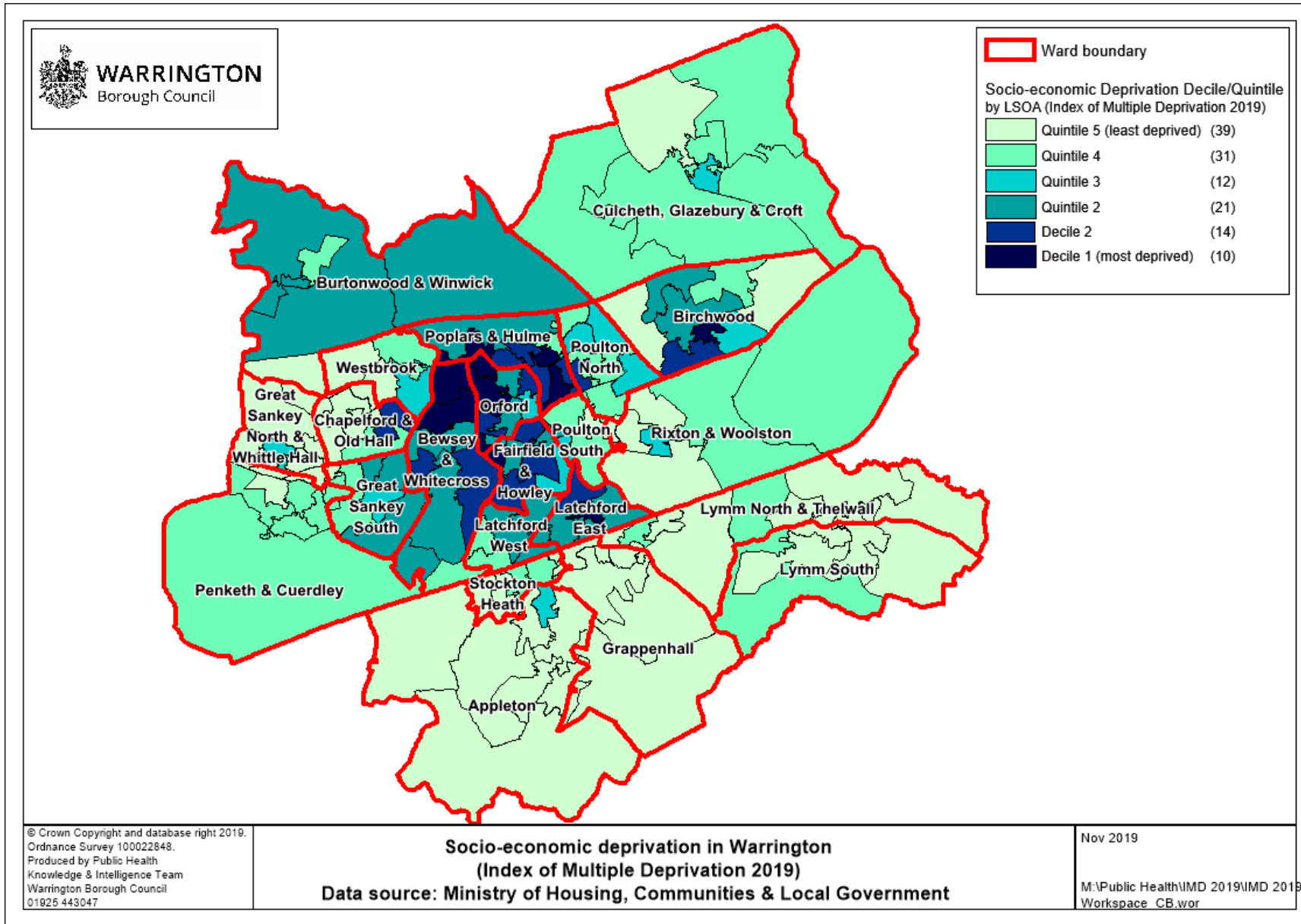
Year 6: Trend in obesity prevalence by socio-economic deprivation

- Prevalence fluctuates substantially from year to year, but in general, the 5 trend lines are almost separate, and in order, with Quintile 1 (most deprived) generally having highest prevalence, down to Quintile 5 (least deprived) generally having lowest prevalence.
- There is so much fluctuation in each quintile from year to year that it is difficult to determine whether the gap between most and least deprived areas is widening, or narrowing, or is stable.



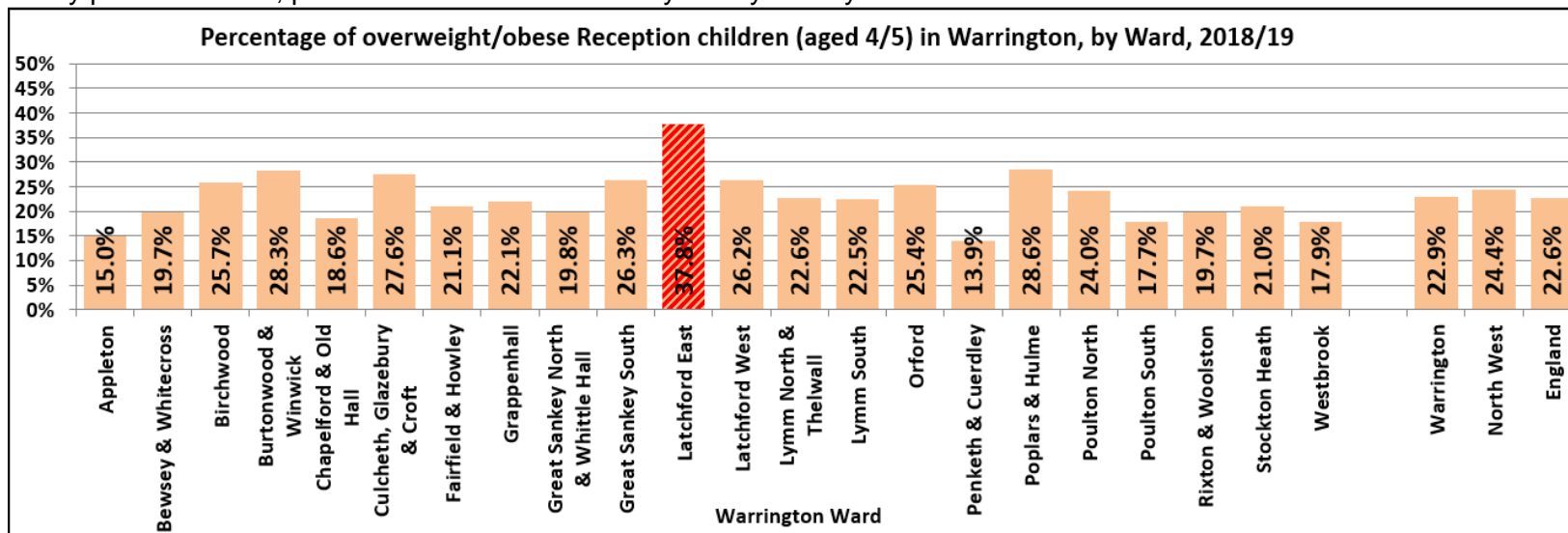
⁷ The Indices of Deprivation are updated periodically. NCMP 2010/11 to 2013/14 has been analysed by IMD 2007, NCMP 2014/15 to 2017/18 has been analysed by IMD 2015 and NCMP 2018/19 has been analysed by IMD2019.

Map 1: Warrington electoral wards and socio-economic deprivation

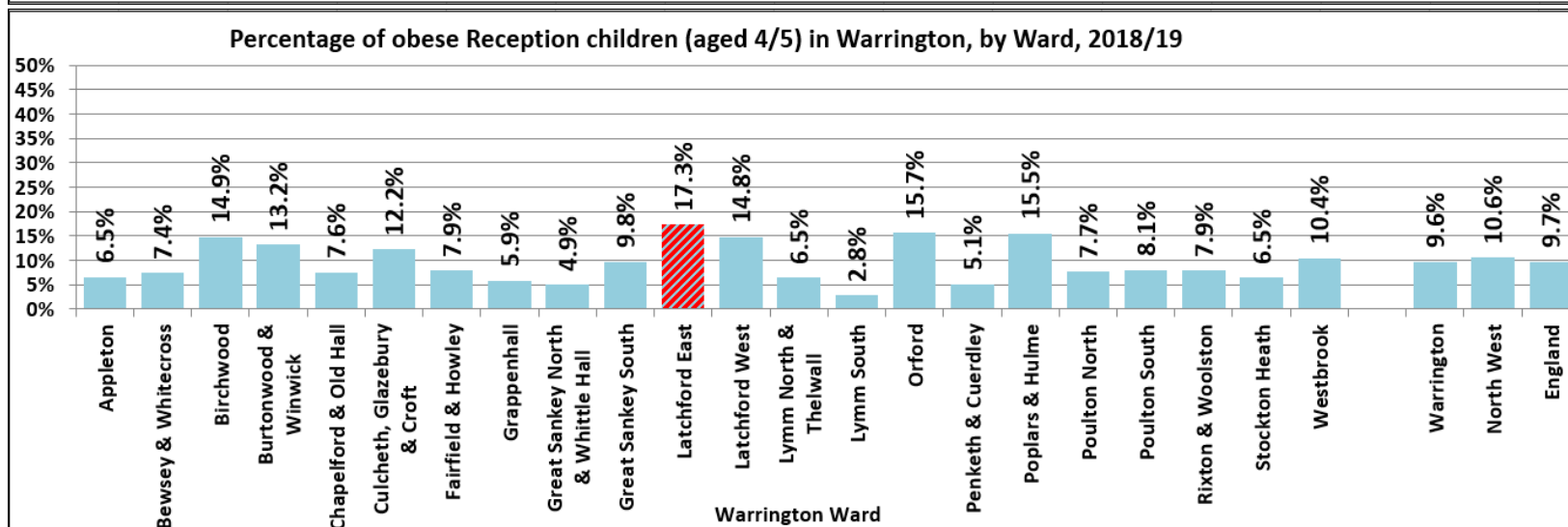


RECEPTION CHILDREN 2018/19 BY ELECTORAL WARD

In any particular ward, prevalence varies substantially from year to year.



Overweight/obesity (top chart). The only ward significantly higher than Warrington overall was Latchford East; no ward was significantly lower.



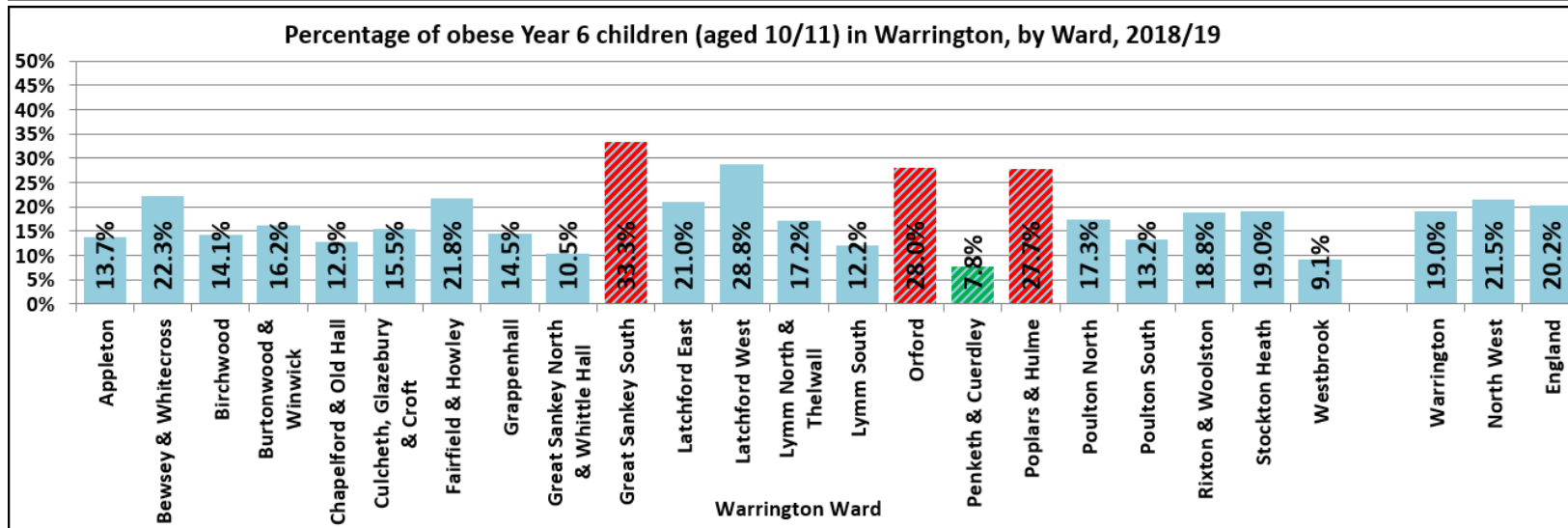
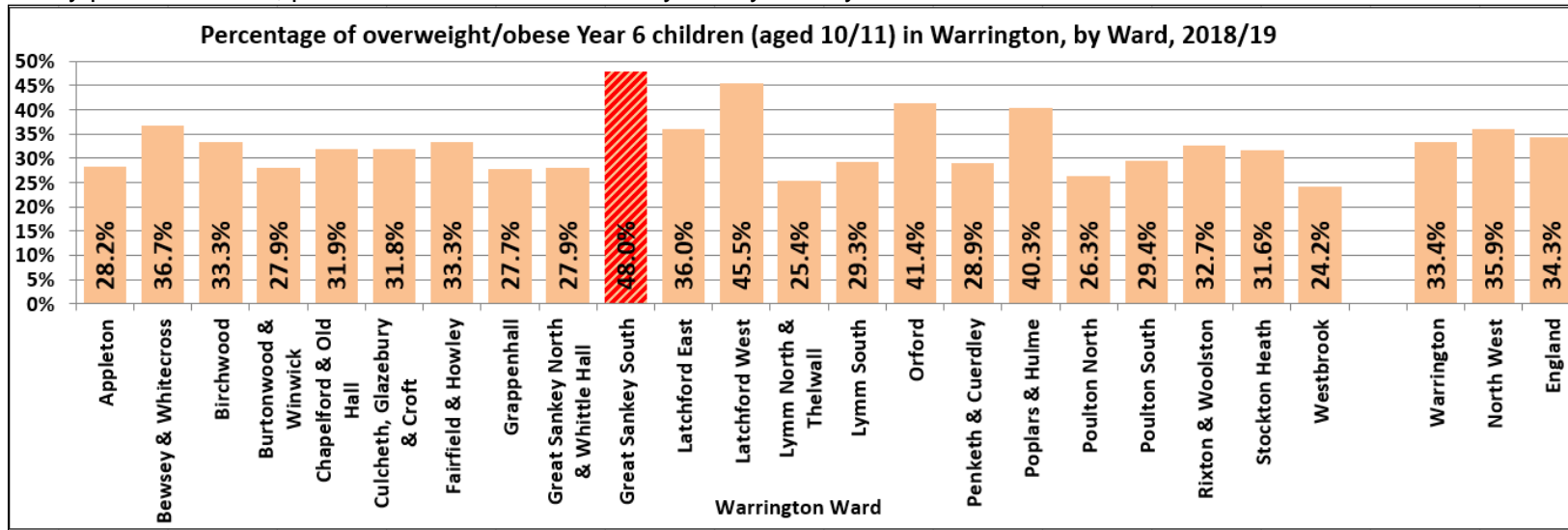
Obesity (bottom chart). The only ward significantly higher than Warrington overall was Latchford East; no ward was significantly lower.

Severely obese (no chart). No ward was significantly different to Warrington (2.3%).

- Bars with red stripes denote wards that are significantly higher than Warrington overall; green stripes denote significantly lower than Warrington.
- Data excludes pupils who live outside the Warrington boundary and therefore can't be allocated to a ward.

YEAR 6 CHILDREN 2018/19 BY ELECTORAL WARD

In any particular ward, prevalence varies substantially from year to year.



- Bars with red stripes denote wards that are significantly higher than Warrington overall; green stripes denote significantly lower than Warrington.
- Data excludes pupils who live outside the Warrington boundary and therefore can't be allocated to a ward.

Overweight/Obesity (top chart). Prevalence of overweight/obesity: Great Sankey South was the only ward significantly higher than Warrington overall; none were significantly lower.

Obesity (bottom chart) Great Sankey South, Orford and Poplars & Hulme were significantly higher than Warrington; Penketh & Cuedrley was significantly lower.

Severely obese (no chart) Chapel Ford & Old Hall was significantly lower than Warrington.

3 wards (Great Sankey South, Orford, and Poplars & Hulme) were significantly higher than Warrington; in each ward, about 1 in 10 children were severely obese. Of all 115 severely obese Year 6 children in Warrington, 45% lived in these 3 wards.

Appendix 1: RECEPTION CHILDREN (AGED 4/5), WARRINGTON AND ENGLAND, 2012/13-2018/19

		% of Reception children					No. measured
		Under-weight	Healthy Weight	Overweight	Obese	Overweight/ Obese	
Warrington 2018/19	Boys	0.1%	76.6%	13.8%	9.6%	23.3%	1,140
	Girls	0.9%	76.7%	12.7%	9.7%	22.4%	1,223
	Both	0.5%	76.6%	13.2%	9.6%	22.9%	2,363
England 2018/19	Boys	1.2%	75.8%	13.0%	10.0%	23.0%	304,820
	Girls	0.7%	77.2%	12.8%	9.4%	22.2%	292,992
	Both	1.0%	76.5%	12.9%	9.7%	22.6%	597,812
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Warrington 2017/18	Boys	0.8%	73.9%	13.1%	12.3%	25.3%	1,271
	Girls	0.3%	73.1%	15.8%	10.8%	26.5%	1,199
	Both	0.6%	73.5%	14.4%	11.5%	25.9%	2,470
England 2017/18	Boys	1.3%	75.8%	13.0%	9.9%	22.9%	311,386
	Girls	0.7%	77.5%	12.7%	9.1%	21.8%	299,049
	Both	1.0%	76.6%	12.8%	9.5%	22.4%	610,435
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Warrington 2016/17	Boys	1.5%	75.7%	13.2%	9.6%	22.8%	1,277
	Girls	1.2%	77.8%	11.9%	9.1%	20.9%	1,222
	Both	1.4%	76.8%	12.6%	9.3%	21.9%	2,499
England 2016/17	Boys	1.2%	75.6%	13.1%	10.0%	23.2%	321,338
	Girls	0.7%	77.2%	12.9%	9.2%	22.1%	308,021
	Both	1.0%	76.4%	13.0%	9.6%	22.6%	629,359
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Warrington 2015/16	Boys	0.8%	76.6%	14.0%	8.6%	22.6%	1,289
	Girls	0.7%	77.9%	12.4%	9.0%	21.4%	1,256
	Both	0.7%	77.2%	13.2%	8.8%	22.0%	2,545
England 2015/16	Boys	1.2%	76.1%	13.1%	9.6%	22.7%	319,437
	Girls	0.7%	77.8%	12.6%	9.0%	21.5%	305,889
	Both	1.0%	76.9%	12.8%	9.3%	22.1%	625,326
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Warrington 2014/15	Boys	1.3%	80.2%	10.7%	7.9%	18.5%	1,258
	Girls	0.3%	79.5%	11.8%	8.4%	20.2%	1,189
	Both	0.8%	79.9%	11.2%	8.1%	19.3%	2,447
England 2014/15	Boys	1.2%	76.2%	13.1%	9.5%	22.6%	311,999
	Girls	0.7%	78.1%	12.5%	8.7%	21.2%	298,637
	Both	1.0%	77.2%	12.8%	9.1%	21.9%	610,636
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Warrington 2013/14	Boys	1.5%	78.2%	12.8%	7.6%	20.3%	1,268
	Girls	0.5%	79.4%	12.0%	8.1%	20.1%	1,178
	Both	1.0%	78.7%	12.4%	7.8%	20.2%	2,446
England 2013/14	Boys	1.2%	75.4%	13.5%	9.9%	23.4%	299,603
	Girls	0.7%	77.7%	12.6%	9.0%	21.6%	287,733
	Both	0.9%	76.5%	13.1%	9.5%	22.5%	587,336
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Warrington 2012/13	Boys	0.5%	76.8%	13.9%	8.7%	22.7%	1,235
	Girls	0.7%	78.3%	14.2%	6.8%	20.9%	1,227
	Both	0.6%	77.6%	14.1%	7.8%	21.8%	2,462
England 2012/13	Boys	1.1%	75.7%	13.5%	9.7%	23.2%	300,337
	Girls	0.7%	78.1%	12.5%	8.8%	21.2%	287,341
	Both	0.9%	76.9%	13.0%	9.3%	22.2%	587,678

Appendix 2: YEAR 6 CHILDREN (AGED 10/11), WARRINGTON AND ENGLAND, 2012/13-2018/19

		% of Year 6 children					No. measured
		Under-weight	Healthy Weight	Overweight	Obese	Overweight/ Obese	
Warrington 2018/19	Boys	1.3%	63.2%	14.0%	21.5%	35.5%	1,264
	Girls	1.7%	67.0%	14.8%	16.5%	31.3%	1,262
	Both	1.5%	65.1%	14.4%	19.0%	33.4%	2,526
England 2018/19	Boys	1.2%	62.1%	14.2%	22.5%	36.7%	305,756
	Girls	1.6%	66.6%	14.0%	17.8%	31.8%	294,693
	Both	1.4%	64.3%	14.1%	20.2%	34.3%	600,449
Warrington 2017/18	Boys	1.3%	63.9%	13.5%	21.3%	34.8%	1,245
	Girls	1.2%	67.7%	13.5%	17.6%	31.1%	1,173
	Both	1.2%	65.8%	13.5%	19.5%	33.0%	2,418
England 2017/18	Boys	1.2%	62.4%	14.2%	22.2%	36.4%	294,252
	Girls	1.6%	66.2%	14.2%	18.0%	32.2%	282,322
	Both	1.4%	64.3%	14.2%	20.1%	34.3%	576,574
Warrington 2016/17	Boys	2.0%	66.4%	13.2%	18.4%	31.6%	1,163
	Girls	1.7%	68.3%	13.5%	16.5%	30.0%	1,115
	Both	1.8%	67.3%	13.3%	17.5%	30.8%	2,278
England 2016/17	Boys	1.2%	62.8%	14.3%	21.8%	36.0%	284,083
	Girls	1.5%	66.1%	14.3%	18.1%	32.4%	272,369
	Both	1.3%	64.4%	14.3%	20.0%	34.2%	556,452
Warrington 2015/16	Boys	1.3%	67.9%	13.2%	17.6%	30.9%	1,105
	Girls	0.7%	65.8%	13.6%	19.8%	33.4%	1,202
	Both	1.0%	66.8%	13.4%	18.8%	32.2%	2,307
England 2015/16	Boys	1.2%	62.9%	14.3%	21.7%	36.0%	277,877
	Girls	1.5%	66.2%	14.3%	17.9%	32.3%	266,738
	Both	1.3%	64.5%	14.3%	19.8%	34.2%	544,615
Warrington 2014/15	Boys	1.1%	66.4%	13.6%	18.9%	32.5%	1,129
	Girls	1.4%	68.9%	16.0%	13.6%	29.7%	1,116
	Both	1.2%	67.7%	14.8%	16.3%	31.1%	2,245
England 2014/15	Boys	1.2%	63.9%	14.2%	20.7%	34.9%	271,542
	Girls	1.6%	66.9%	14.1%	17.4%	31.5%	259,681
	Both	1.4%	65.3%	14.2%	19.1%	33.2%	531,223
Warrington 2013/14	Boys	0.9%	66.5%	14.6%	18.0%	32.5%	1,091
	Girls	1.5%	68.4%	15.6%	14.4%	30.0%	1,049
	Both	1.2%	67.5%	15.1%	16.2%	31.3%	2,140
England 2013/14	Boys	1.2%	63.6%	14.4%	20.8%	35.2%	263,316
	Girls	1.6%	66.7%	14.4%	17.3%	31.7%	250,959
	Both	1.4%	65.1%	14.4%	19.1%	33.5%	514,275
Warrington 2012/13	Boys	0.8%	66.1%	15.8%	17.3%	33.1%	1,177
	Girls	1.2%	69.1%	13.7%	16.0%	29.8%	1,042
	Both	0.9%	67.5%	14.8%	16.7%	31.5%	2,219
England 2012/13	Boys	1.1%	64.1%	14.4%	20.4%	34.8%	250,725
	Girls	1.5%	66.7%	14.4%	17.4%	31.8%	238,421
	Both	1.3%	65.4%	14.4%	18.9%	33.3%	489,146

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