Results of the

National Child Measurement Programme

Leeds 2019-2020

Making Leeds a child friendly city

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Acknowledgements

Contents

Glossary

Term	Definition
Confidence Interval	Gives an indication of the likely error around an estimate that has been calculated from measurements based on a sample of the population. It indicates the range within which the true value for the population as a whole can be expected to lie, taking natural random variation into account.
Deprivation decile	All parts of England have a deprivation score generated by the Index of Multiple Deprivation 2019 (IMD2019). Imagine splitting England into ten equally sized chunks based on these IMD2019 scores. If you put the "most deprived 10%" parts of England together into one group, the "least deprived 10%" parts of England into another group, and so on, until all of England has been divided into ten groups ranging from the most deprived to the Least deprived. These ten groups are referred to as "**deciles**". **Decile 1** is the most deprived 10% of England, **Decile 2** is the *second* most deprived 10% of England, **Decile 10** is the *least* deprived 10% of England. These **deciles** can be used to organise data and show the relationship between obesity and deprivation for instance.
Deprivation quintile	This is the same concept as **Deprivation Decile (tenths)**, except in this case data is grouped into five, from "most deprived 5th" to "least deprived 5th".
Overweight and Obese	Body mass index (BMI) is commonly used to determine a child's weight status. BMI is calculated by dividing a person's weight in kilograms by the square of height in meters. Children's body composition varies as they age and varies between boys and girls. Therefore, BMI levels among children and teens need to be expressed relative to other children of the same age and sex. Using the age and sex-specific UK90 growth reference centiles, the BMI calculated is then compared to this reference sample of measurements, which takes age and sex into account. A child is classed as Overweight = greater than or equal to 85th centile and less than 95th centile. Obese = greater than or equal to 95th centile.
Prevalence	The rate of obesity in the population being observed. For example "25% of Ward A are obese" is the same as saying "Prevalence of obesity in Ward A is 25%"
School Cluster	The grouping of schools within the same geographical location.
Statistically significant	In this report "**statistically significant**" refers to an instance where 95% confidence interval ranges *do not overlap*. This means that even when we take into account the margin of error around two measurements, the two measurements are never expected to be the same value. Put another way, "If the rate of obesity in Ward A is in the range **20% -25%,** and the rate of obesity in Ward B is in the range **30%-35%** then Ward A and Ward B are statistically significantly different"
Rolling aggregate rate	NCMP data fluctuates a lot between years when we cut it down into ward or cluster sized groups, mainly due to small numbers being measured. This means a single years data may not be the best way to understand obesity in a ward or cluster. It is possible to "smooth" this variation by taking an average, aggregating data over the most recent 5 years. For example the number of obese children in a ward for the last 5 years is summed, then the number of children in that ward over the last 5 years is summed, then the obesity rate is calculated from these two aggregated totals.

Introduction

The National Child Measurement Programme (NCMP) is a statutory public health function of the Local Authority. Each year, school children in Reception (4-5 years old) and Year 6 (10-11 years old) are weighed and measured across England. This annual report presents the information collected from the NCMP and summarises the findings of over 12,000 Leeds school children measured in the school year 2019/20.

Due to the Government requesting the NCMP programme being stopped in March 2020 because of the coronavirus pandemic, a lower coverage of children was measured compared to previous years. Because of the lower counts NHS Digital classify the Reception data for Leeds as being "*fit for publication but interpret with caution*", this is the 2nd highest level of quality they award. The Year 6 data is classified as "*Reliable*", which is the highest level of quality.

The parents of every child measured receives a letter informing them about their child's weight and outlining what support there is available locally. Parents of children identified with obesity also receive a phone call from the Public Health Integrated School Nursing Service offering further support.

The data collected from this programme:

- Is a key performance indicator in several local reports including Leeds Best Council Plan, Leeds Health and Wellbeing Plan and Leeds Children and Young People's Plan. It helps to influence commissioning and to ensure services are targeted where they are particularly needed
- It allows us to monitor and assess how we are addressing our local challenges of ensuring all Leeds children can achieve a healthy weight
- It informs service planning to ensure services are provided in areas of greatest need

Key Findings

The key findings from the analysis of the data obtained from school children in the academic year 2019-20.

- 12,523 Leeds school children were weighed and measured, with included 61% of Reception and 83% of Year 6 children. This is a much lower coverage rate to the previous year.

- One in 10 (10.1%) children in Reception measured is obese (574 children), with around a quarter 24% either overweight or obese (1,370). The obesity rate for Reception children has increased slightly compared to last year (9.8%).

- One in five in Year 6 is obese, 20.8% (1,422) with 34.7% (2.369) of the children either overweight or obese. The obesity rate has slightly decreased compared to last year (21%).

- In 2019/20 obesity levels in Reception are a little above England rate (9.9%) but not significantly so. Rates in Year 6 are lower than England (21%) though not statistically significantly so.

- The rate of obesity among Year 6 school children remains more than double the rate for Reception children both locally and nationally

- 29.9% (3,789) of all school children measured Reception and Year 6 were overweight or obese (excess weight)

- In both school year groups, there are a slightly larger number of obese boys than girls, particularly in Year 6, where the difference in percentage was statistically significant

- The prevalence rate of underweight children is very low. These rates have stayed at 0.6% for Reception children and dropped to 1.0% for Year 6 children in 2019/20 compared to last year of 1.2%.

- The five-year rolling aggregate obesity rates are relatively stable among the Reception Year and has slightly increased for Year 6 school children.

- Only one ethnic group is significantly above the national five year rolling aggregate obesity rate compared to Leeds rates which is Year 6 "White and Asian".

- There is a strong relationship between obesity and deprivation. Five year rolling aggregate rates shows that children living in areas in the most deprived decile in Leeds have significantly higher obesity levels for both age groups; Reception at 11.9% and Year 6 at 26.5%. The least deprived children, have much lower rates of obesity; Reception at 4.6% and Year 6 at 10.3%. (see figures 3&4)

- Looking at year on year changes: the gap in obesity rates between deprived and not-deprived areas has decreased in Reception and increased in Year 6 with currently 4.4% in Reception and 10.1% in Year 6. (see figures 5&6)

- The five-year aggregated school cluster data show that the prevalence of obesity among Reception children was highest in the Inner East cluster at 12.1%, closely followed by J.E.S.S at 12.0%. In Year 6 the obesity rate was highest in J.E.S.S. at 28.4% followed by Inner East and 'Beeston, Cottingley and Middleton' both at 26.2%.

- The five-year aggregated analysis found that the local authority wards with the highest child obesity prevalence were Burmantofts and Richmond Hill increasing to 13.4% for Reception, and Hunslet and Riverside also increasing at 29.9% for Year 6.

- The five-year aggregated data showed the following four school clusters have both school year groups within the top five highest obesity rates; Inner East, J.E.S.S., 'Seacroft Manston', and ACES.

Results

Weight prevalence and coverage

Table 1: Prevalence of underweight, healthy weight, overweight and obese by school year compared to national and regional for 2019/20 (LA of Residence)

School Year	Area Name	Underweight	Healthy Weight	Overweight	Obese	Combined overweight and obese
Reception	Leeds	0.6%	75.4%	13.9%	10.1%	24.0%
	Yorkshire and the Humber	0.8%	75.2%	13.6%	10.5%	24.1%
	England	0.9%	76.1%	13.1%	9.9%	23.0%
Year 6	Leeds	1.1%	64.4%	13.8%	20.8%	34.7%
	Yorkshire and the Humber	1.4%	62.9%	13.8%	21.9%	35.8%
	England	1.4%	63.4%	14.1%	21.0%	35.2%

A total of 5,701 Reception children were measured and out of these 10.1% children are obese (574) with 24% overweight or obese (1,370). This is similar obesity rate to regional level (24.1%) and above the national level (23%).

This year, the percentage of obese Year 6 children has not really changed, last year it was 20.9% and now it is 20.8%. This is slightly below national and regional levels (21.0% and 21.9%), both of which have increased a little this year. A total of 6,822 Year 6 children were measured and of these, one fifth are obese (1,422) and over a third (34.7%) are overweight or obese (2,369).

For 2019-20, Public Health Integrated School Nursing Service measured 12,523 school children in Reception and Year 6 and found 29.9% of children (3,739) surveyed were overweight or obese.

Figure 1: Prevalence of obesity from 2008/09 to 2019/20 by school year compared regionally and nationally

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
England Reception: Prevalence of obesity	9.6	9.8	9.4	9.5	9.3	9.5	9.1	9.3	9.6	9.5	9.7	9.9
England Year 6: Prevalence of obesity	18.3	18.7	19.0	19.2	18.9	19.1	19.1	19.8	20.0	20.1	20.2	21.0
Yorkshire and the Humber region Reception: Prevalence of obesity	9.6	9.1	9.1	9.1	8.9	9.2	8.8	9.4	9.7	9.9	10.2	10.5
Yorkshire and the Humber region Year 6: Prevalence of obesity	18.6	18.7	19.2	19.2	19.0	19.2	19.2	20.3	20.4	20.6	21.0	21.9
Leeds Reception: Prevalence of obesity	10.3	10.1	9.6	9.3	8.7	9.5	8.8	8.7	8.5	9.5	9.8	10.1
Leeds Year 6: Prevalence of obesity	21.1	20.0	19.8	19.7	19.6	19.3	19.3	20.4	19.3	19.9	21.0	20.8

The obesity rate for Leeds Reception children followed a downward trend from 10.3% in 2008/09 to 8.5% in 2016/17. In 2017/18 the rate began rising and the general trend has continued with the rate reaching 10.1% in 2019/20. This Reception obesity rate is still slightly lower than the region (10.5%) and virtually identical to the national obesity rate (9.9%).

From 2008/09 until 2014/15 the obesity rate for Year 6 school children followed a steady downward trend; from 21.1% in 2008/09 to 19.3% in 2014/15. The rate began to fluctuate from 2015/16 and the general trend is upwards. This year the rate fell slightly to 20.8% which is a little below England (21.0%), and Yorkshire and the Humber (21.9%).

Despite these differences, Leeds obesity rate is not statistically significantly different to England in either Reception or Year 6.

Figure 2: Five year rolling aggregated obesity rates for Leeds from 2013 to 2020 for Year Reception and Year 6

	2013/14 to 2017/18	2014/15 to 2018/19	2015/16 to 2019/20
Reception	9.0%	9.1%	9.2%
Year 6	19.6%	20.0%	20.3%
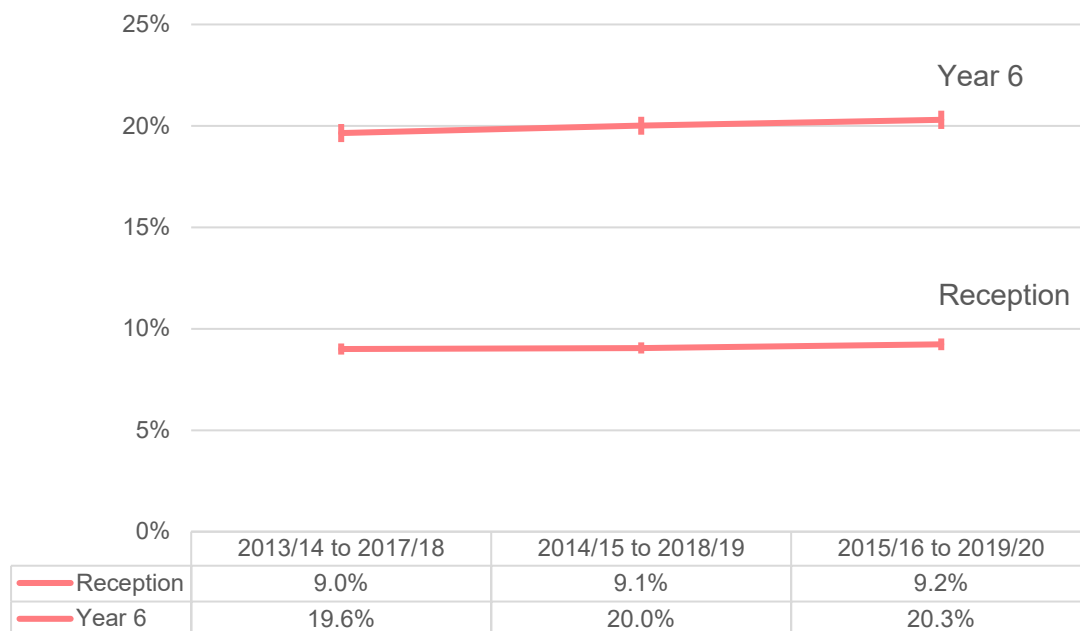
Notes: *UCI = Upper Confidence Interval   LCI = Lower Confidence Interval*

*A **confidence interval** gives an indication of the likely error around an estimate that has been calculated from measurements based on a sample of the population. It indicates the range within which the true value for the population as a whole can be expected to lie, taking natural random variation into account.*

Five year rolling average rates are most commonly used to increase data validity where measuring trends.

This graph shows aggregated data at five year intervals since 2013, these being 2013/14 to 2017/18, 2014/15 to 2018/19 and 2015/16 to 2019/20. The 5 year rolling obesity rate data highlights obesity rates are relatively stable among the Reception Year school groups and has slightly increased for Year 6 over this time period.

Obesity rates by deprivation

The figure below looks at the association between obesity and deprivation. The definition of deprivation presented is based on the 2019 Index of Multiple Deprivation (IMD) which classifies children into a deprivation decile based on the area where they live, where decile 1 is the most deprived and decile 10 is the least deprived. This is the approach taken nationally.

Five year aggregated data are presented to increase the robustness of the findings given the relatively small number of children living in the least deprived decile as compared to the numbers in the most deprived decile. Table 4 in the Appendix, provides further detail of the numbers involved.

Figure 3: Prevalence of obesity in Reception by Leeds school area 2019 IMD decile using 5 year aggregated data from 2015/16 to 2019/20
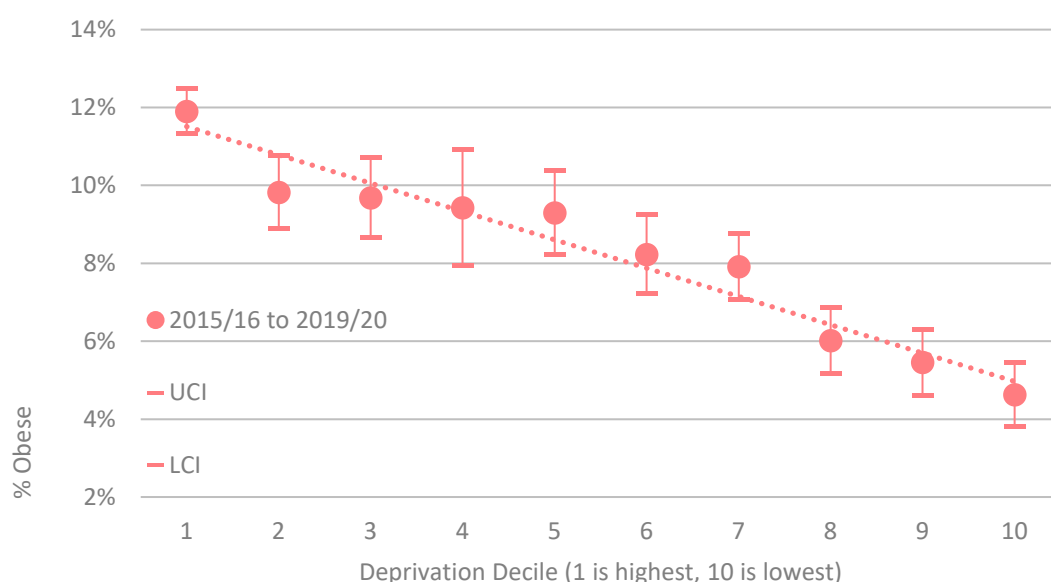
(Note that Deprived and Non Deprived Leeds are slightly different to previous NCMP reports, the areas they represent changed when the Index of Multiple Deprivation was updated to 2019)

National data shows there is a strong relationship between obesity and deprivation* which is also replicated here in Leeds. The obesity rate for Leeds Reception children in decile 1 (most deprived) is, at 11.9% over double the rate of decile 10 (least deprived) at 4.6%.

Figure 4: Prevalence of obesity in Year 6 by Leeds school area 2019 IMD using 5 year aggregated data 2015/16 to 2019/20
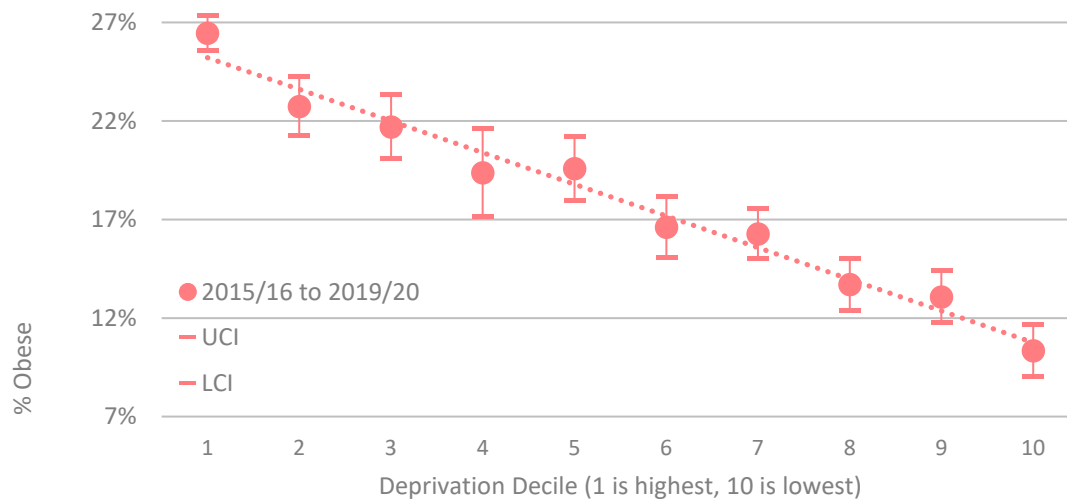
There is an even stronger association with deprivation* for Year 6 children, where again obesity rates are more than double for the deprived (decile 1) population at 26.5% compared to 10.3% for decile 10.

Both graphs show that the most deprived pupils have the greatest percentage of obese children and the least deprived the lowest, with a downward trend from the most to the least deprived deciles.

Trends in obesity prevalence by deprivation

The Adults and Health Directorate has historically compared the prevalence of key health issues in relation to deprived Leeds. This data highlights the scale of health inequalities and enables the monitoring of any targeted actions with regard to reducing the health inequalities gap.

Figure 5: Prevalence of obesity in Reception children from 2014/15 to 2019/20 by deprivation

|	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Gap between Deprived and Not	3.0%	3.2%	3.4%	4.1%	5.3%	4.4%
Deprived	10.9%	10.8%	10.7%	12.2%	13.4%	13.2%
Not Deprived	7.9%	7.7%	7.3%	8.1%	8.1%	8.8%
Leeds	8.8%	8.7%	8.5%	9.5%	9.8%	10.1%
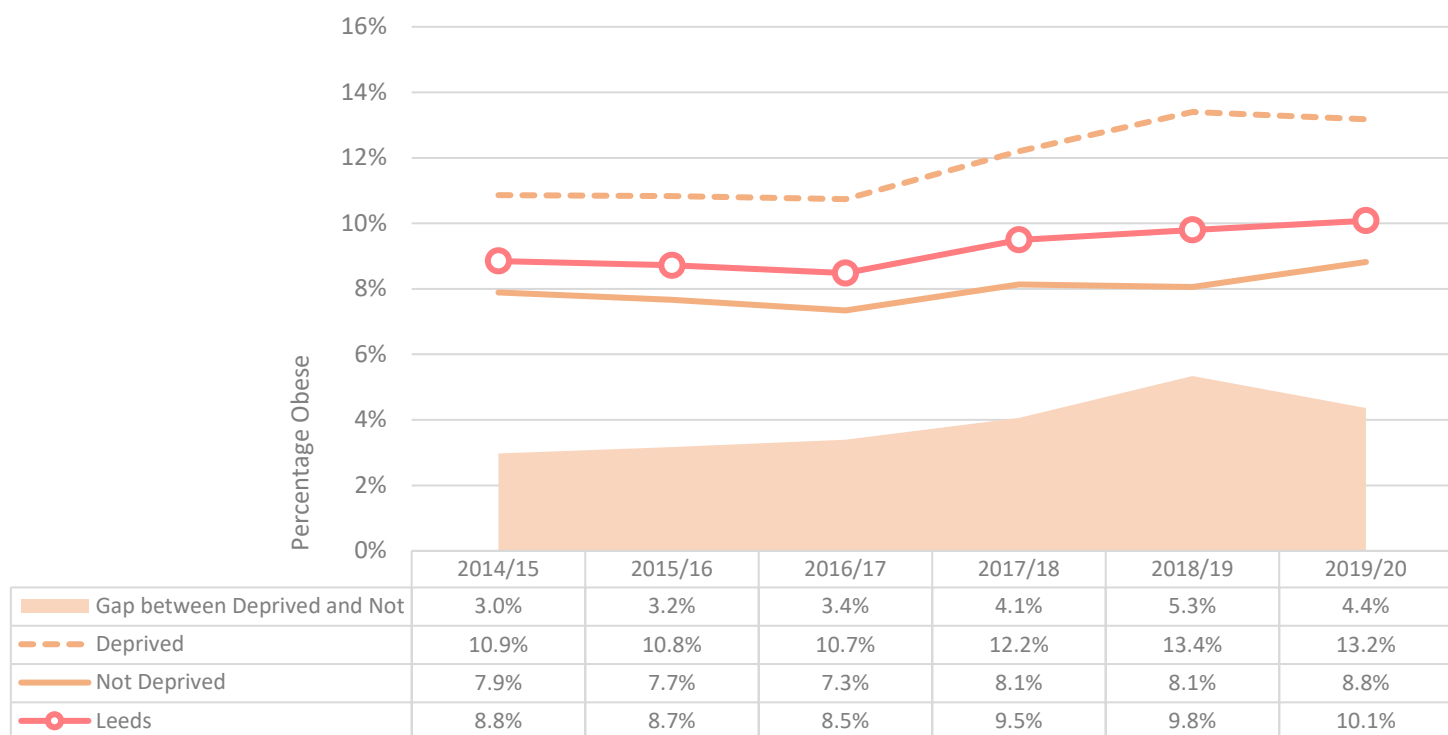
The figures above and below compare the rate of child obesity over the last six years among children living within deprived Leeds (decile 1) and 'not deprived Leeds' (deciles 2-10). (Deciles calculated using IMD 2019)*

Over the last five years, for both age groups, children living in deprived Leeds have significantly higher levels of obesity compared to children living in deprived Leeds and Leeds as a whole.

The data shows a very slight fall this year in obesity prevalence for Reception aged children living in deprived Leeds. The gap in obesity rates between deprived and not-deprived areas has decreased in Reception with the gap dropping from 5.3% to 4.4%.

Figure 6: Prevalence of obesity in Year 6 children from 2014/15 to 2019/20 by deprivation

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Gap between Deprived and Not	8.0%	8.4%	9.9%	8.9%	8.8%	10.1%
Deprived	24.7%	26.1%	25.9%	25.8%	26.8%	28.0%
Not Deprived	16.7%	17.7%	16.0%	16.9%	18.0%	17.9%
Leeds	19.3%	20.4%	19.1%	19.8%	20.9%	20.8%
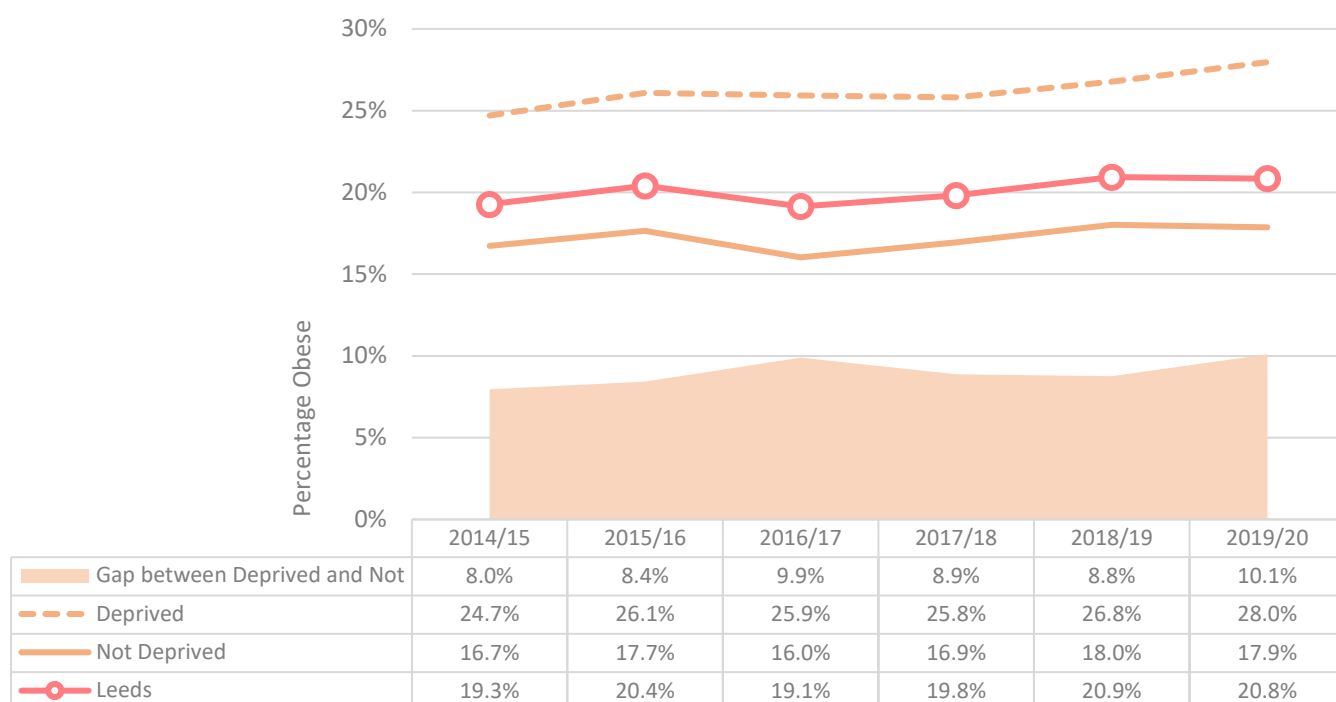
The gap in Year 6 obesity rates between deprived and not-deprived areas has increased, and is larger than it has been in the past*. The deprivation gap for Year 6 grew mainly due to an upturn in the obesity rate in 'deprived Leeds'. The Year 6 obesity rate for Leeds overall actually fell very slightly to 20.8%.

Figure 7: Prevalence of obesity Reception children, aggregated 5 yearly from 2009/10 to 2019/20 by deprived quintiles
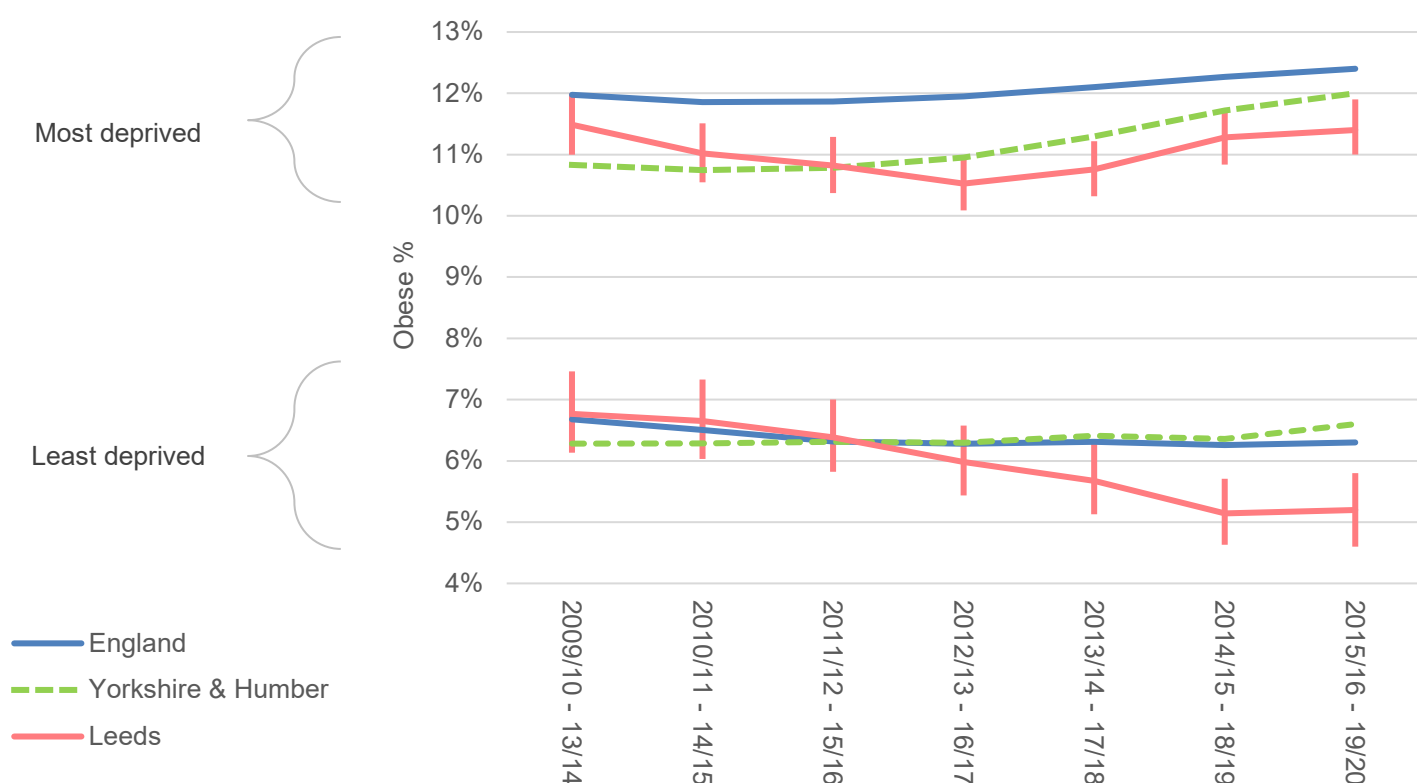
Reception obesity %		2009/10 - 13/14	2010/11 - 14/15	2011/12 - 15/16	2012/13 - 16/17	2013/14 - 17/18	2014/15 - 18/19	2015/16 - 19/20
Least deprived quintile	England	6.7%	6.5%	6.3%	6.3%	6.3%	6.3%	6.3%
	Leeds	6.8%	6.7%	6.4%	6.0%	5.7%	5.1%	5.2%
	Yorkshire and Humber	6.3%	6.3%	6.3%	6.3%	6.4%	6.4%	6.6%
Most deprived quintile	England	12.0%	11.9%	11.9%	11.9%	12.1%	12.3%	12.4%
	Leeds	11.5%	11.0%	10.8%	10.5%	10.8%	11.3%	11.4%
	Yorkshire and Humber	10.8%	10.7%	10.8%	11.0%	11.3%	11.7%	12.0%

This graph shows the trend of Reception child obesity levels in the least deprived quintile and most deprived quintile at 5 yearly aggregates. The obesity rate for Reception children shows that Leeds is statistically significantly lower than England and Yorkshire and Humber in the most recent three periods for the least deprived quintile. For children living in the most deprived quintile Reception obesity rates in Leeds have been well below the England value for many years, and Leeds is currently significantly below the Yorkshire and Humber rate too.

Figure 8: Prevalence of obesity Year 6 children, aggregated 5 yearly from 2009/10 to 2019/20 by deprived quintiles

	Year 6	2009/10 - 13/14	2010/11 - 14/15	2011/12 - 15/16	2012/13 - 16/17	2013/14 - 17/18	2014/15 - 18/19	2015/16 - 19/20
Least deprived quintile	England	13.4%	13.1%	12.9%	12.7%	12.8%	12.8%	12.9%
	Leeds	14.9%	14.2%	13.3%	12.9%	12.7%	11.7%	11.9%
	Yorkshire and Humber	13.3%	13.1%	12.8%	12.8%	12.9%	12.8%	12.9%
Most deprived quintile	England	23.9%	24.2%	24.5%	24.9%	25.4%	25.8%	26.1%
	Leeds	22.6%	23.1%	23.7%	24.0%	24.3%	25.3%	25.6%
	Yorkshire and Humber	22.8%	23.3%	23.7%	24.1%	24.6%	25.2%	25.6%
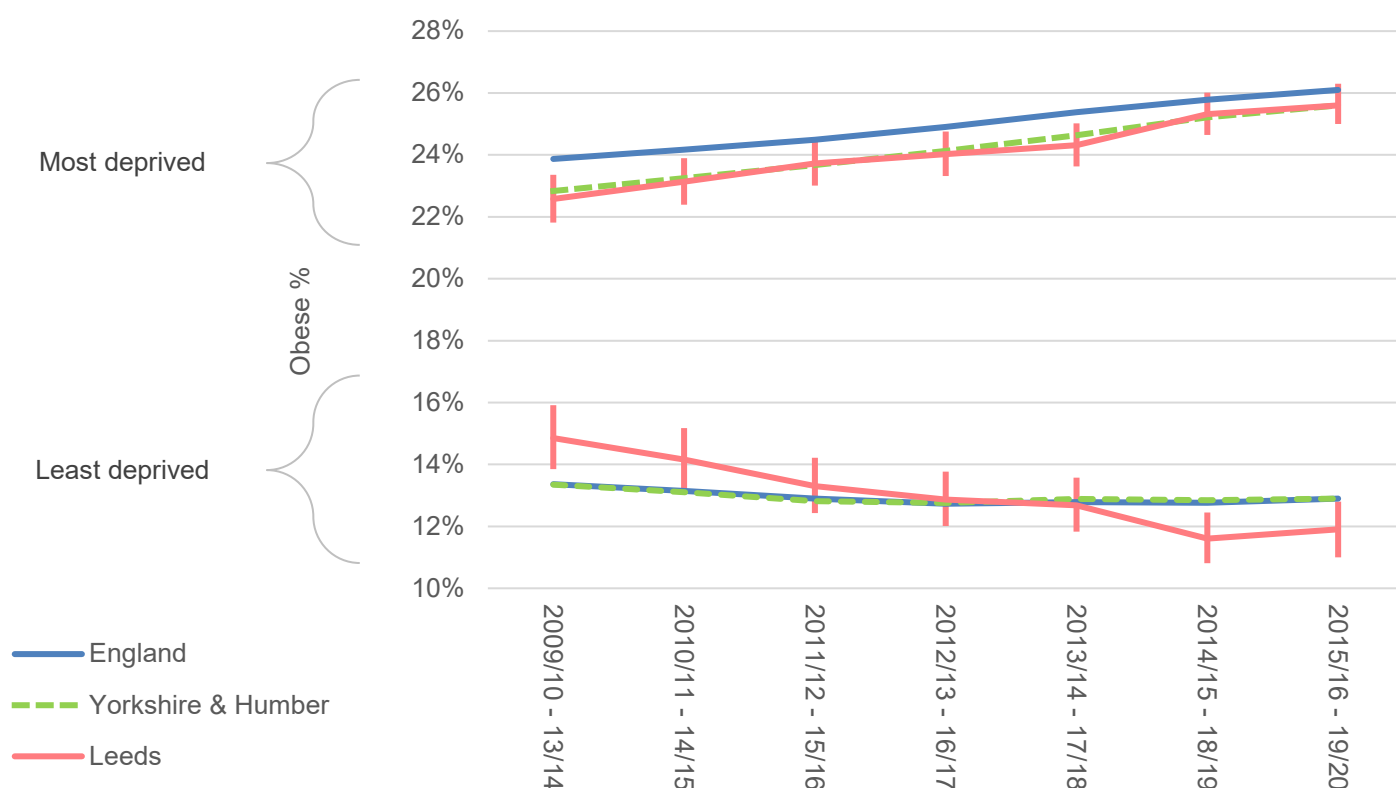
For Year 6 children, the Leeds obesity ate is not statistically significantly different to England or Yorkshire and Humber in either the most deprived or in the least deprived quintiles.

Obesity rates by ethnicity

Figure 9: Prevalence of obesity in Reception by ethnicity compared to England aggregated 2015/16 to 2019/20
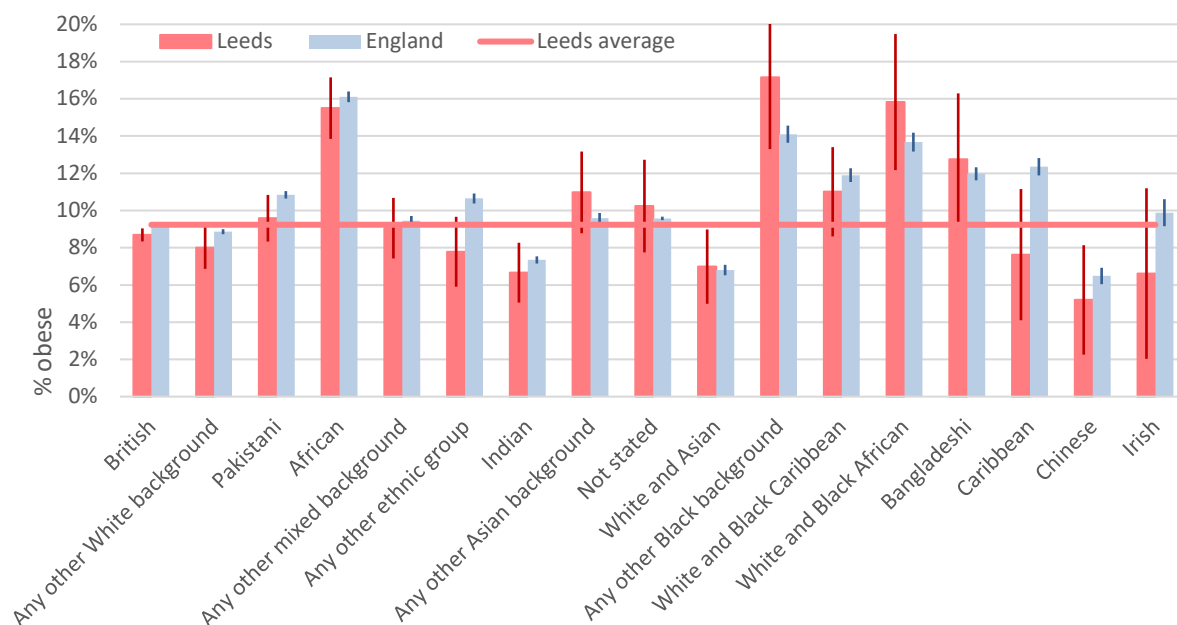
This graph shows the five year aggregate obesity rates by ethnicity. For Reception children, the largest population group, "British" is (just) significantly below England. Other ethnic groups in Leeds that are significantly below English equivalents are: "any other ethnic group", and "Caribbean".

None of the ethnic groups in Leeds are significantly above their English counterparts. The "Any other Black background" group comes closest to being above the English rates, but not in any meaningful way.

In comparison to the Leeds overall rate, the "African", "Any other black background", and "White and Black African" groups are all significantly above the Leeds average. The groups with significantly lower rates than Leeds are "British", "Any other White background", "Indian", White and Asian", and "Chinese".

Figure 10: Prevalence of obesity in Year 6 by ethnicity compared to England aggregated 2015/16 to 2019/20
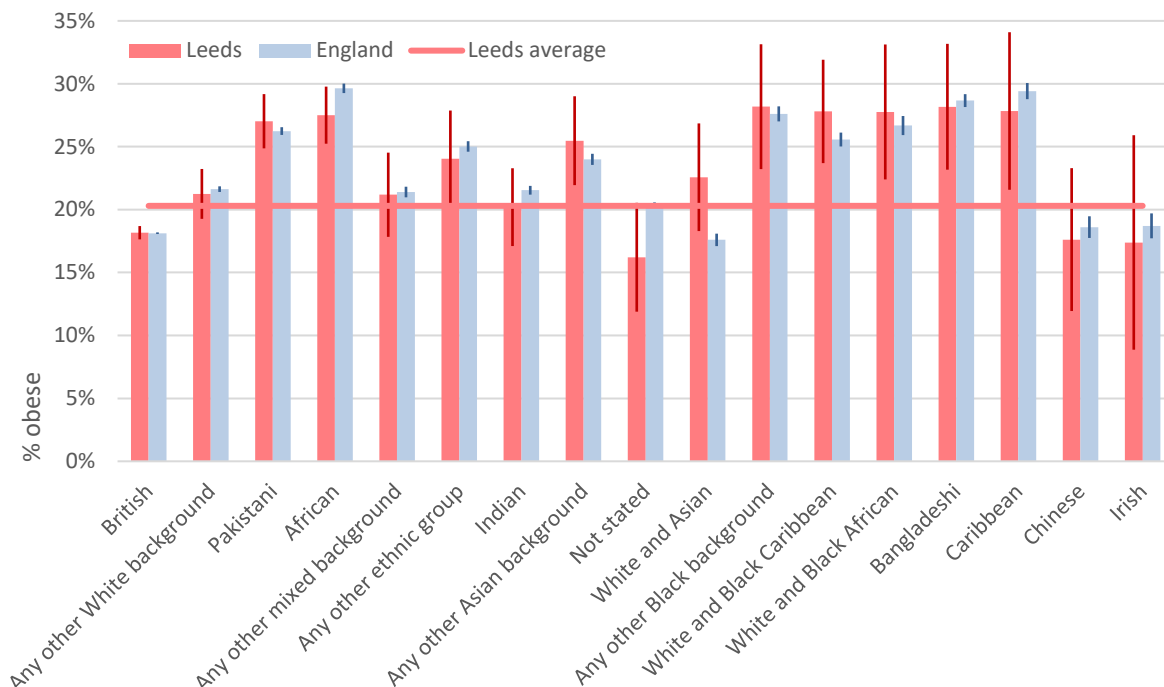
For Year 6 children, the largest population group, "British" is virtually identical to England. Only one ethnic group is significantly different to its English counterpart - "White and Asian", which is significantly above the National group.

In comparison to the Leeds *overall* rate, all of the "Pakistani", "African", "Any other Asian Background", "Any other Black Background", "White and Black Caribbean", "White and Black African", "Bangladeshi", and "Caribbean" groups are significantly above the Leeds average.

Only one ethnic group is significantly *below* the Leeds average - "British".

Caution with ethnicity data:

These findings need to be treated with caution as there are known associations between ethnicity and area deprivation. Nationally it is known that deprived urban areas in England tend to also have a higher proportion of individuals from non-White ethnic groups, so it is likely that there are confounding factors which affect obesity prevalence by ethnic group. There is also national recognition that further investigation is required to determine whether BMI, particularly when using the current UK growth charts, can be used to accurately determine whether a child is obese and overweight across all ethnic groups.

Obesity rates by gender

Figure 11: Prevalence of obesity in Reception and Year 6 by gender from 2013/14 to 2019/20
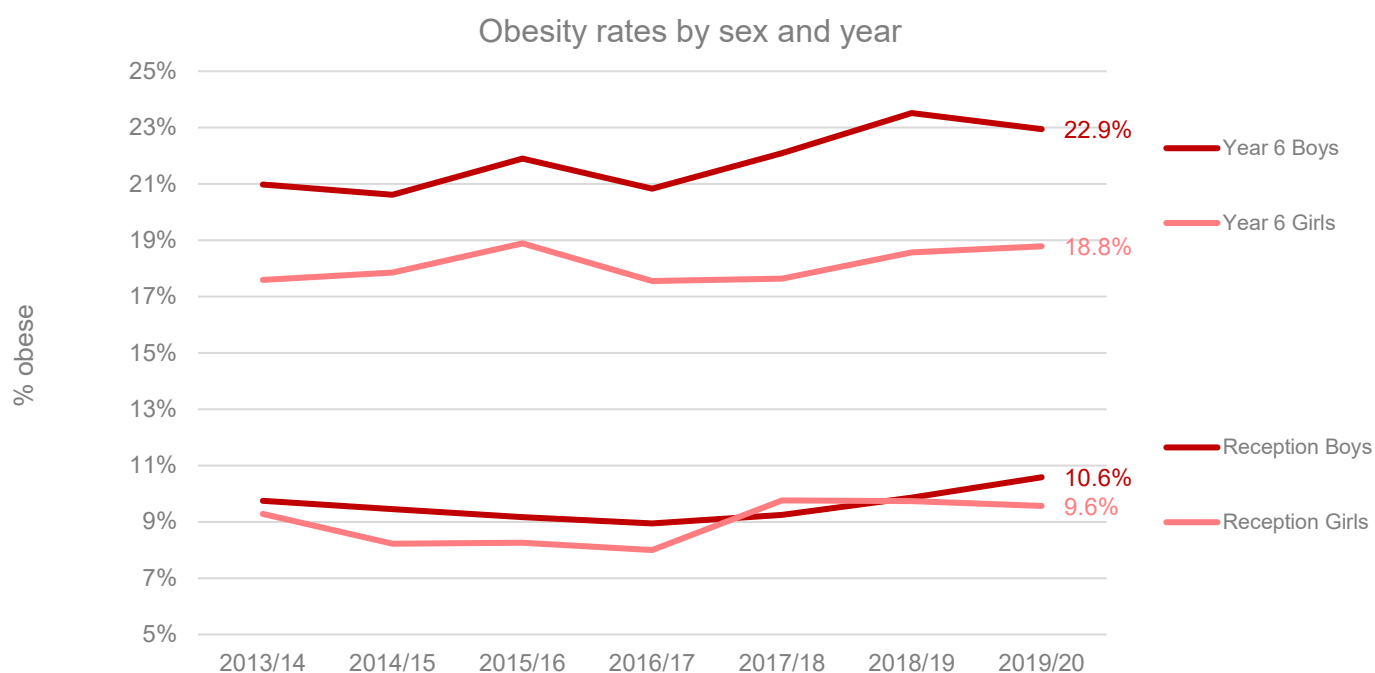
This year, obesity rates for boys and girls in Reception have diverged (10.6% vs 9.6%). The girls rate has fallen slightly again, while the boys' rate increased.

In Year 6, boys have reversed their steady climb, while girls increased slightly to 18.8%. This gender difference is significant.

Aggregated underweight rates

Figure 12: Prevalence of underweight children in Reception, aggregated 5 yearly from 2006/07 to 2019/20
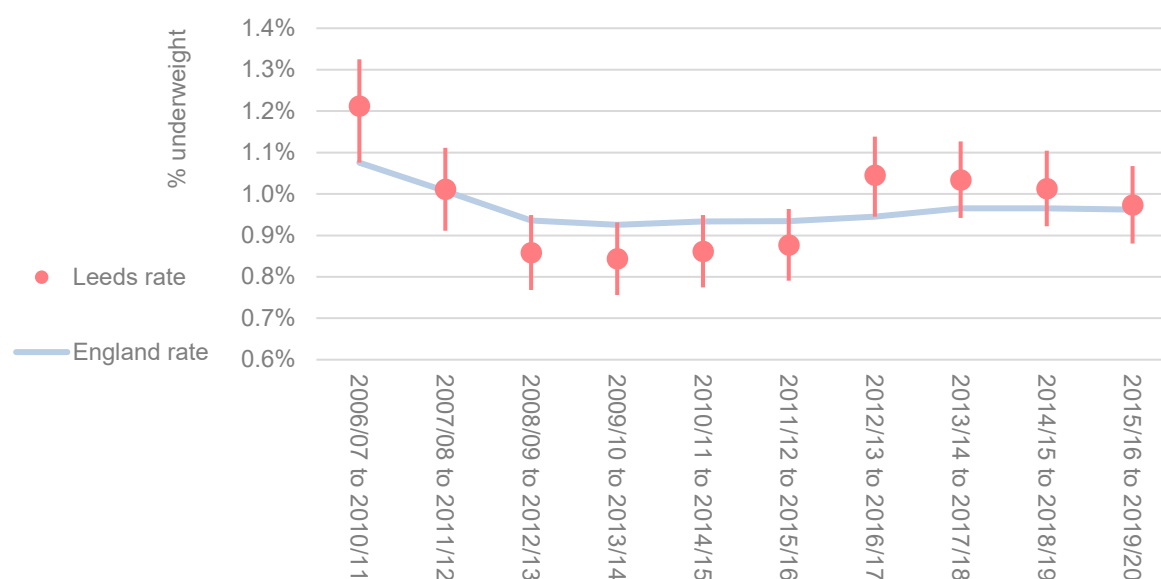
Figure 13: Prevalence of underweight children in Year 6, aggregated 5 yearly from 2006/07 to 2019/20

The prevalence rates of underweight children are very low in comparison to overweight and obese children with 0.6% (35) children in Reception and 1.1% (70) children in Year 6 found to be underweight in the 2019/20 data.

This year, the aggregated data shows that underweight rates are still falling steadily, however neither Reception nor Year 6 are significantly different to England.

Aggregated obesity rates by school cluster

Figure 14: Prevalence of obesity in Reception aggregated from 2015/16 to 2019/20 by school cluster
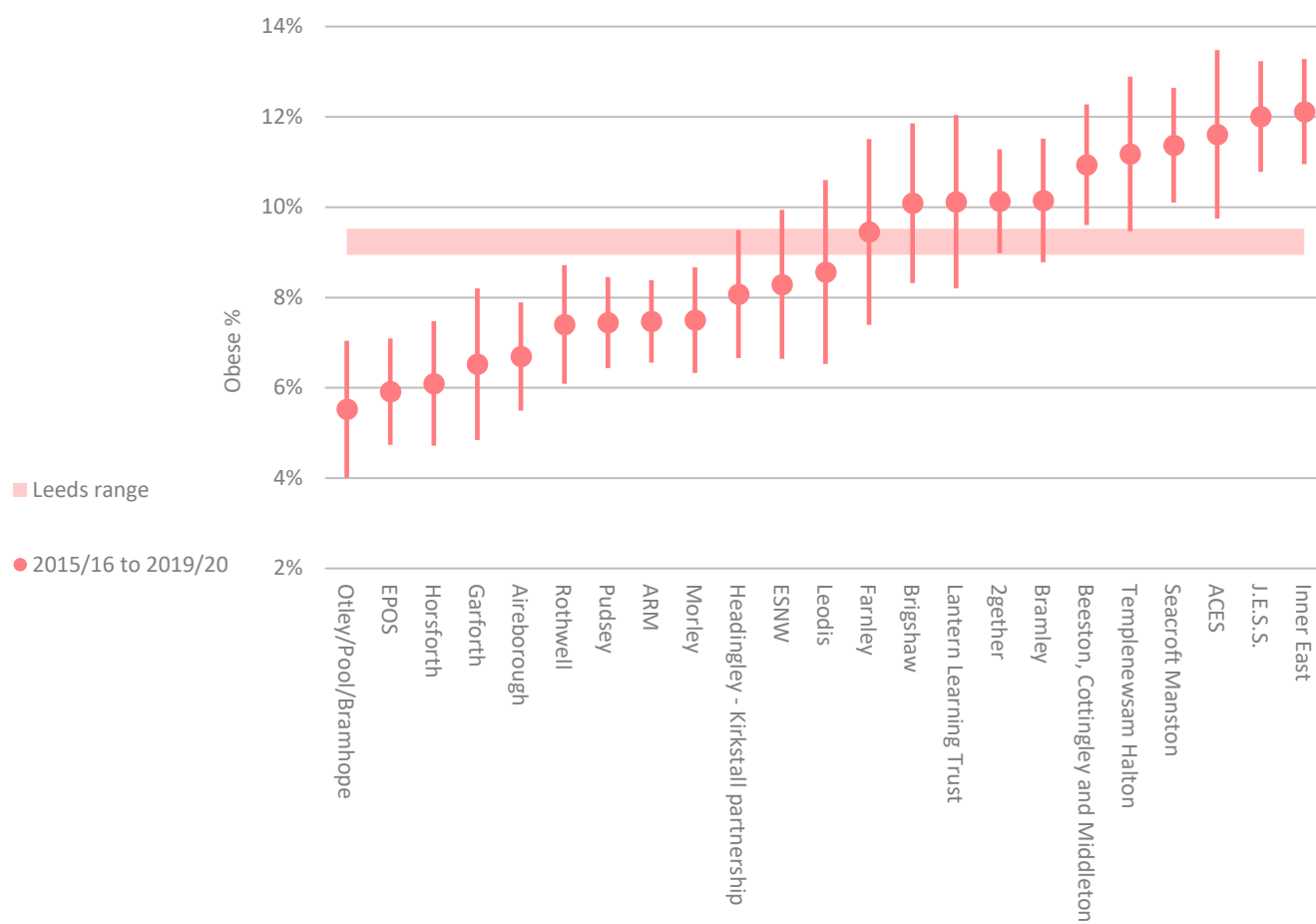
Figure 15: Prevalence of obesity in Year 6 aggregated from 2015/16 to 2019/20 by school cluster
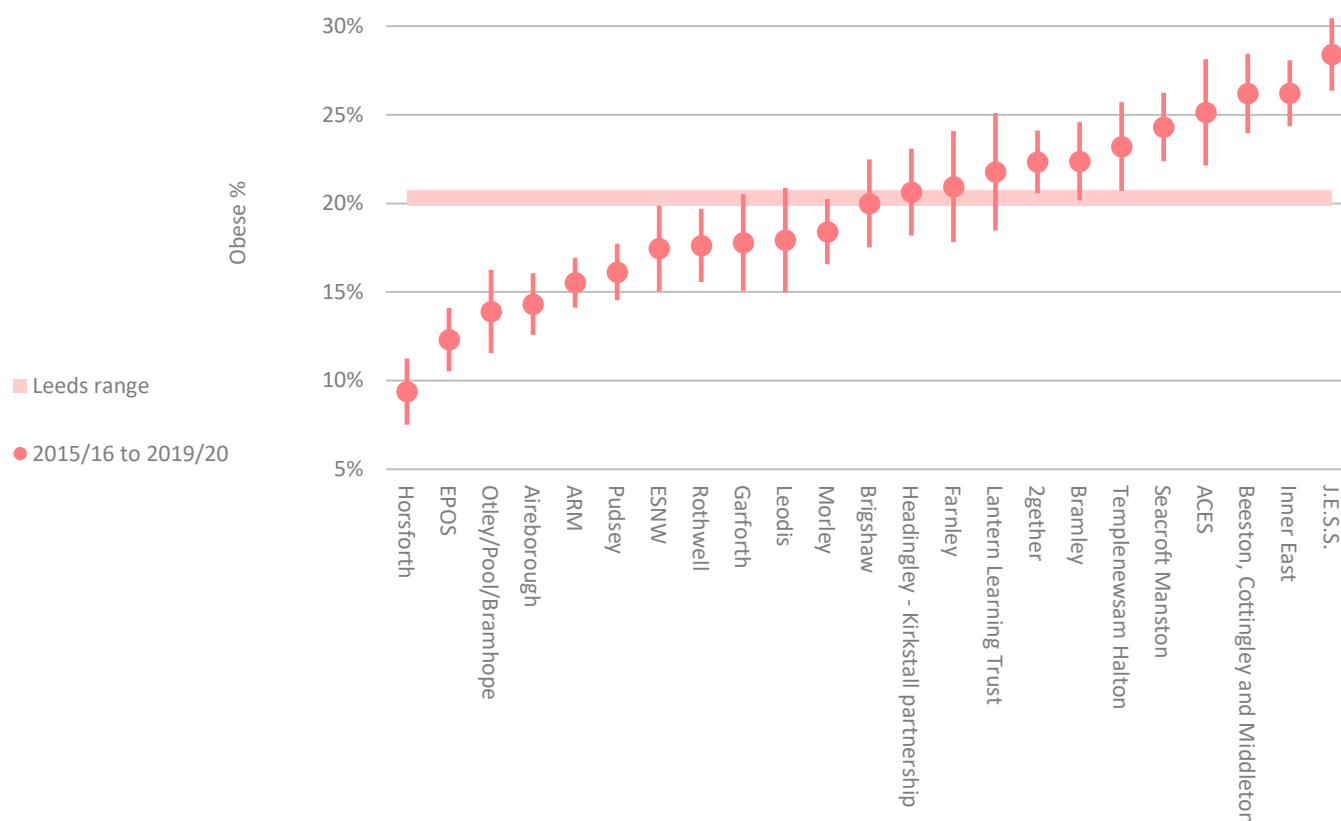
This five year aggregated data shows that prevalence for obesity in Reception school children is the highest in the Inner East school cluster (12.1%) closely followed by J.E.S.S at (12.0%) and ACES (11.6%). All three clusters have statistically significantly higher rates than the Leeds aggregated average of 9.2%; Seacroft Manston, and 'Beeston, Cottingley and Middleton' are also significantly above Leeds rates.

In Year 6, the obesity rate was statistically significantly higher than Leeds in J.E.S.S, Inner East, 'Beeston Cottingley and Middleton', ACES, and Seacroft Manston clusters.

Of the school clusters in the top five for the highest obesity rates there were four school clusters that appeared for both school years, these were Seacroft Manston, Inner East, ACES, and J.E.S.S. There were seven clusters that appeared in the top 10 for obesity in both Reception and Year 6.

While the graphs broadly highlight the positive correlation between deprivation and obesity this association is complicated as children from the most deprived areas of the city are also most likely to experience food poverty.

The maps below highlight how prevalence in obesity rates which have been aggregated for the last five years of data for the different MSOA areas across the city vary from the Leeds rate. School clusters are outlined.

Figure 16: Aggregated percentage of obesity in Reception children from 2015/16 to 2019/20 – significance of difference to Leeds by MSOA (2011)
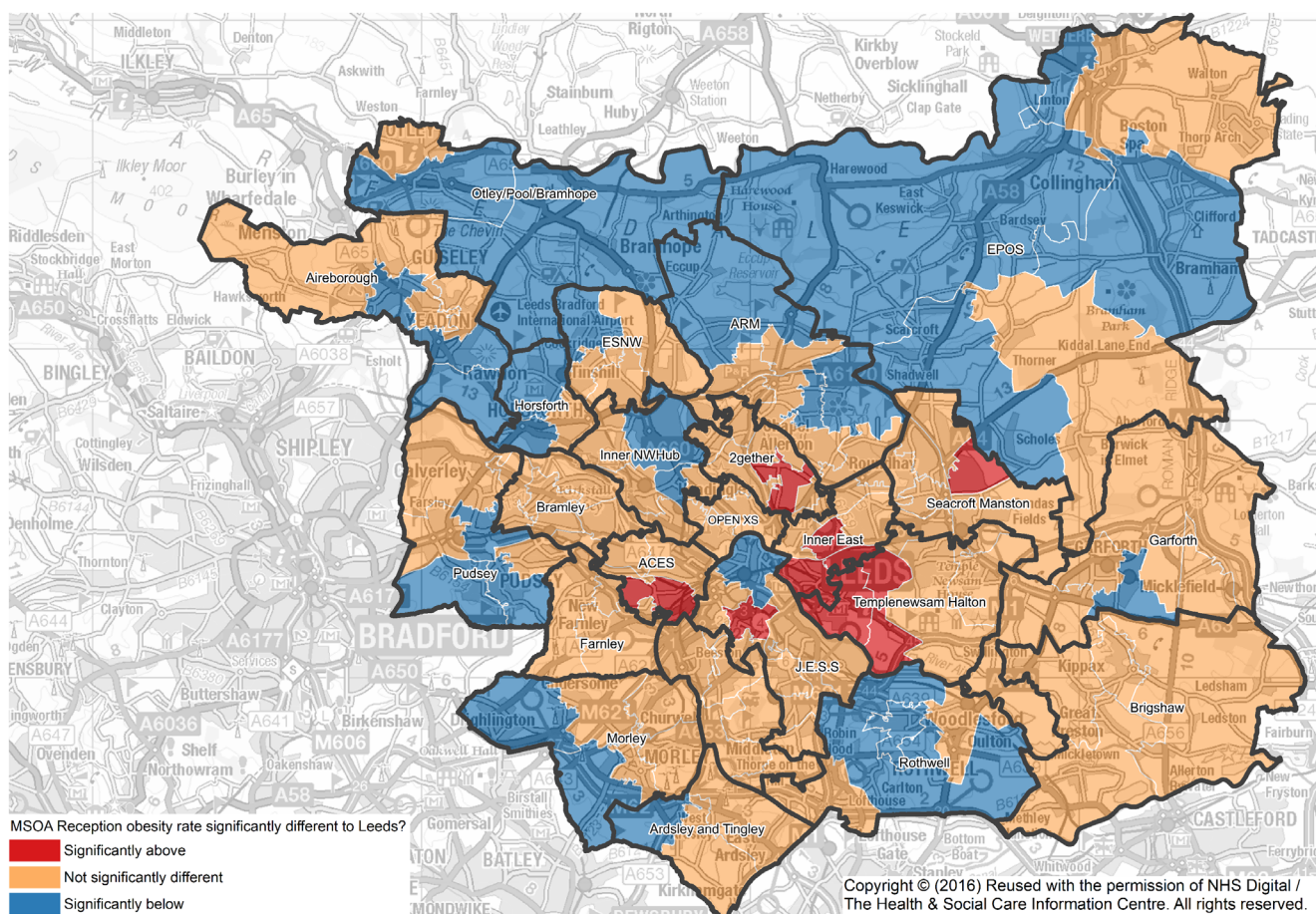
The map shows the differences in obesity levels for aggregated Reception age children in the five years 2015/16 to 2019/20, by 2011 Middle Super Output Area (MSOA). There are three categories; blue MSOAs are significantly below the Leeds rate, orange MSOAs are not significantly different to Leeds, and red MSOAs are significantly above the Leeds rate. The association between obesity and deprivation can be seen with concentrations of red MSOAs around the centre of town, and blue MSOAs toward the outer edges. School cluster areas are outlined in dark grey and labelled.

Ward analysis (not mapped) of the 5 year rate shows that Burmantofts and Richmond Hill ward had the highest child obesity prevalence for Reception school children at 13.4%, while 'Adel and Wharfedale' at 5.6% had the lowest reception obesity prevalence.

A list of the obesity rates for Reception age children by Cluster residence and Ward can be found in the Appendix.

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Figure 17: Aggregated percentage of obesity in Year 6 children from 2015/16 to 2019/20 - significance of difference to Leeds by MSOA (2011)

The map shows the differences in obesity levels for aggregated Year 6 children in the five years 2015/16 to 2019/20, by 2011 Middle Super Output Area (MSOA). There are three categories; blue MSOAs are significantly below the Leeds rate, orange MSOAs are not significantly different to Leeds, and red MSOAs are significantly above the Leeds rate. The association between obesity and deprivation can be seen with concentrations of red MSOAs around the centre of town, and blue MSOAs toward the outer edges. School cluster areas are outlined in dark grey and labelled.

Ward analysis (not mapped) of the 5 year rates showed that 'Hunslet & Riverside' had the highest rate of obesity in Year 6 children at 29.9% followed by 'Beeston and Holbeck' at 27.4%, while Horsforth at 9.8% had the lowest.

A list of the obesity rates for Year 6 children by Cluster residence and Ward can be found in the Appendix.

For Reception in 2019/20 Leeds has the second lowest child obesity rate of the eight Core Cities and is significantly lower than two other core cities. For Year 6 children, Leeds has the second lowest child obesity rate of the Core Cities and is significantly lower than five other cities. (Graphs showing this can be found in the Appendix, pages 29&30).

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Further sources of information

Deb Lowe – Advanced Health Improvement Specialist – deborah.lowe@leeds.gov.uk

Change 4 Life – https://www.nhs.uk/change4life

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The PHE Obesity Knowledge & Information team conduct additional analyses on the NCMP data, including regional and local analyses, and produce a range of reports and tools which are available at: https://digital.nhs.uk/services/national-child-measurement-programme/

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Appendix

Definition of Body Mass Index

Prevalence rates were calculated by deriving every child's BMI and referencing the age and sex specific centiles calculated using the British 1990 growth reference (UK90) to determine the number of children defined as underweight, healthy weight, overweight or obese as a proportion of the number measured. Body mass index (BMI) is an indicator of body mass based on height and weight. BMI = weight (kg) / height^2 (m^2)

The age and sex-specific UK90 growth reference centiles were based on UK growth data: a large representative sample of 37,700 children was constructed by combining data from 17 separate surveys. The sample was rebased to 1990 levels and the data were then used to express BMI as a centile based on the BMI distribution, adjusted for skewness, age and sex using Cole's LMS method (Growth monitoring with the British 1990 growth reference'. Cole *Arch Dis Child.*1997; 76: 47-49)

The BMI cut-offs used for population monitoring as used in the NCMP are:
- Underweight: 2nd centile and clinical assessment
- Overweight: 85th centile
- Very Overweight (Obese): 95th centile

These thresholds are those conventionally used for population monitoring and are not the same as those used in a clinical setting where overweight is defined as a BMI greater than or equal to the 91st but below the 98th centile and obese is defined as a BMI greater than or equal to the 98th centile.

Table 2: Prevalence of underweight, healthy weight, overweight, obese and combined overweight and obese by school year and gender for 2019/20

		Underweight		Healthy weight		Overweight		Obese		Overweight *or* obese	
Reception	Girls	10	*0.4%*	2,126	*74.9%*	408	*14.4%*	267	*9.4%*	675	*23.8%*
	Boys	26	*0.9%*	2,169	*74.4%*	388	*13.3%*	307	*10.5%*	695	*23.8%*
	Both	36	*0.6%*	4,295	*74.6%*	796	*13.8%*	574	*10.0%*	1,370	*23.8%*
Year 6	Girls	37	*1.1%*	2,245	*64.9%*	459	*13.3%*	626	*18.1%*	1,085	*31.4%*
	Boys	31	*0.9%*	2,140	*60.9%*	488	*13.9%*	796	*22.6%*	1,284	*36.5%*
	Both	68	*1.0%*	4,385	*62.9%*	947	*13.6%*	1,422	*20.4%*	2,369	*34.0%*

Figure 18: Prevalence of obesity in Reception by Core Cities for 2019/20
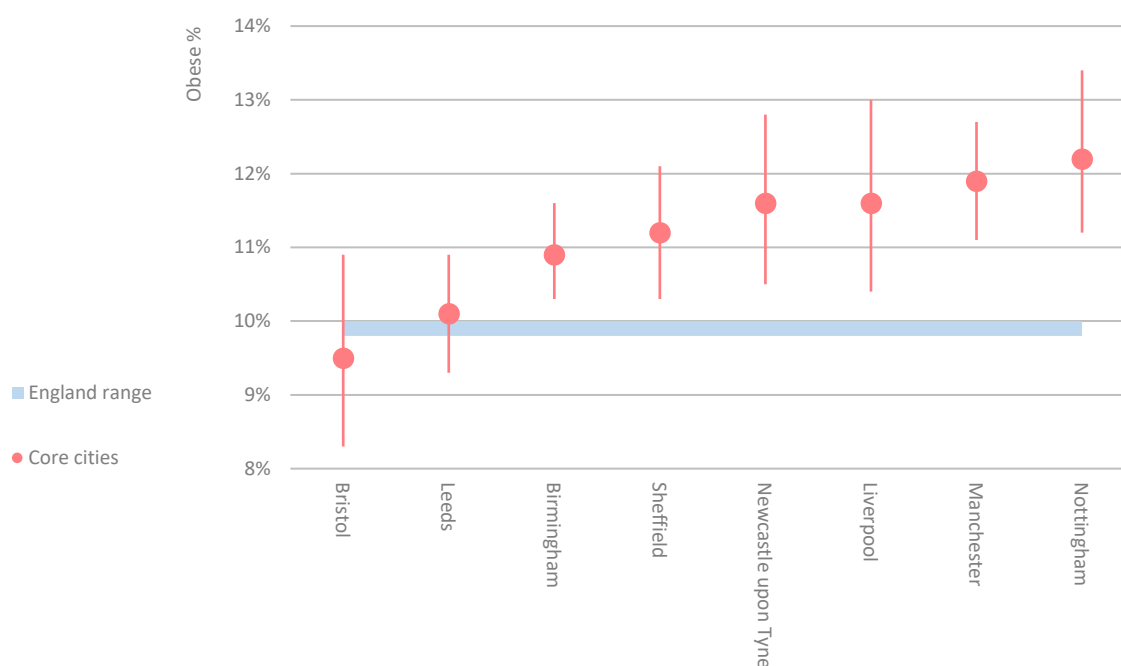
Note: 95% Confidence intervals are shown for core cities as bars

Figure 19: Prevalence of obesity in Year 6 by Core Cities for 2019/20
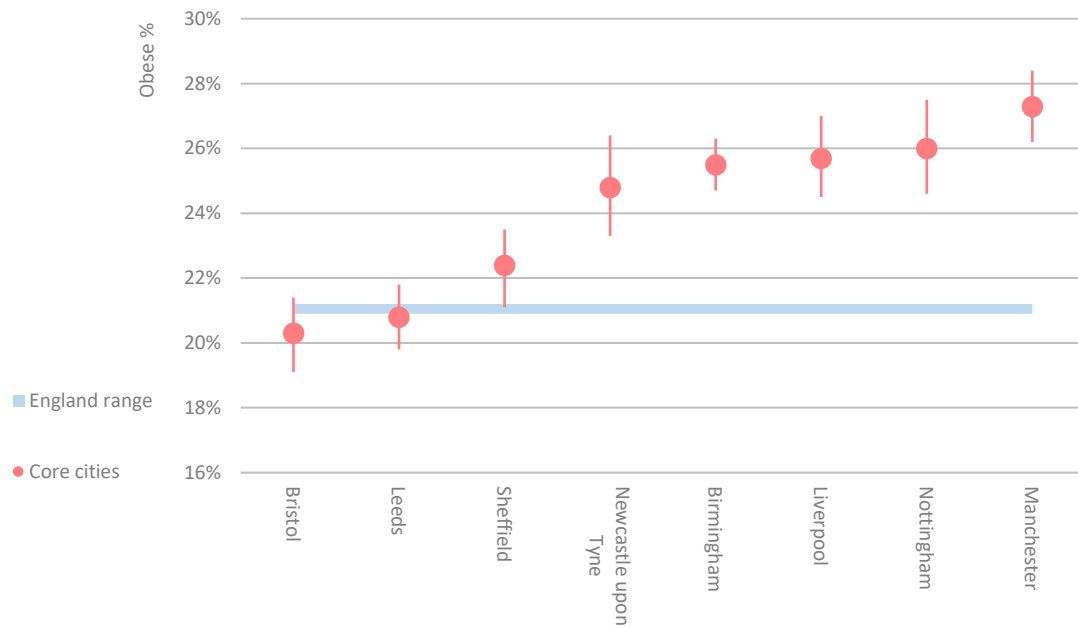
Note: 95% Confidence intervals are shown for core cities as bars

Table 3: Prevalence of underweight, healthy weight, overweight and obese by school year and by Local Authority Management Area for 2019/20

	Management Area	Underweight		Healthy Weight		Overweight		Obese	
Reception	East North East	14	0.9%	1,145	74.4%	220	14.3%	161	10.5%
	South East	15	0.7%	1,577	74.3%	304	14.3%	226	10.7%
	West North West	6	0.3%	1,432	77.2%	247	13.3%	169	9.1%
	Leeds Resident	35	0.6%	4,154	75.3%	711	14.0%	556	10.1%
Year 6	East North East	17	1.0%	1,094	63.4%	238	13.8%	376	21.8%
	South East	23	0.9%	1,558	61.8%	366	14.5%	576	22.8%
	West North West	27	1.2%	1,556	67.5%	305	13.2%	417	18.1%
	Leeds Resident	67	1.0%	4,208	64.2%	909	13.9%	1,369	20.9%

Table 4: Number of children by school area deprivation (2019 IMD Decile) from 2015/16 to 2019/20

	2015/16		2016/17		2017/18		2018/19		2019/20	
	Least	Most	Least	Most	Least	Most	Least	Most	Least Deprived	Most Deprived
Reception	555	3,129	548	3,194	523	3,033	599	2,903	432	1,608
Year 6	468	2,549	465	2,433	472	2,616	485	2,847	411	1,959

This table highlights the number of measured children in the most and least deprived areas over time. It shows the numbers in the least deprived areas are much smaller and these figures will be even smaller when split into the different levels of weight.

Table 5: Single year number of healthy weight, obese, overweight and underweight, 1 year and aggregate 5 year Obesity Rates: Reception children from 2015/16 to 2019/20 by school cluster

Reception	Single Year - 2019/20						*5 Year Obesity Rate 2015/16 to 2019/20*
	Total Children	Under weight	Healthy weight	Overweight	Obese	*Obesity Rate 2019/20*	
Farnley	61	-	38	10	13	*21.3%*	*9.5%*
Seacroft Manston	401	1	276	67	57	*14.2%*	*11.4%*
Inner East	384	4	270	57	53	*13.8%*	*12.1%*
Bramley	194	1	136	31	26	*13.4%*	*10.1%*
Beeston, Cottingley and Middleton	362	5	264	47	46	*12.7%*	*10.9%*
J.E.S.S.	448	6	331	59	52	*11.6%*	*12.0%*
Temple Newsam Halton	190	1	142	25	22	*11.6%*	*11.2%*
Aireborough	227	1	175	25	26	*11.5%*	*6.7%*
2gether	266	2	202	34	28	*10.5%*	*10.1%*
ACES	78	-	56	14	8	*10.3%*	*11.6%*
Brigshaw	167	-	127	23	17	*10.2%*	*10.1%*
Lantern Learning Trust	135	1	103	18	13	*9.6%*	*10.1%*
Morley	271	-	202	43	26	*9.6%*	*7.5%*
Leodis	96	1	70	16	9	*9.4%*	*8.6%*
Otley/Pool/Bramhope	176	-	135	26	15	*8.5%*	*5.5%*
ESNW	139	-	110	18	11	*7.9%*	*8.3%*
ARM	420	8	327	53	32	*7.6%*	*7.5%*
Pudsey	414	-	330	54	30	*7.2%*	*7.4%*
Horsforth	247	-	202	28	17	*6.9%*	*6.1%*
Rothwell	251	1	193	40	17	*6.8%*	*7.4%*
EPOS	240	-	191	33	16	*6.7%*	*5.9%*
Garforth	157	-	121	26	10	*6.4%*	*6.5%*
Headingley - Kirkstall	192	3	153	24	12	*6.3%*	*8.1%*
Leeds resident	5,516	35	4,154	771	556	*10.1%*	*9.2%*

Table 6: Single year number of healthy weight, obese, overweight and underweight, 1 year and aggregate 5 year Obesity Rates: Year 6 children from 2015/16 to 2019/20 by school cluster

Year 6	Single Year - 2019/20					*Obesity Rate 2019/20*	*5 Year Obesity Rate 2015/16 to 2019/20*
	Total Children	Under weight	Healthy weight	Overweight	Obese		
Inner East	400	3	206	70	121	*30.3%*	*26.2%*
J.E.S.S.	467	6	275	52	134	*28.7%*	*28.4%*
Beeston, Cottingley and Middleton	404	4	230	58	112	*27.7%*	*26.2%*
Seacroft Manston	424	6	230	72	116	*27.4%*	*24.3%*
ACES	130	2	77	17	34	*26.2%*	*25.1%*
Farnley	67	-	43	8	16	*23.9%*	*21.0%*
Leodis	112	2	62	22	26	*23.2%*	*17.9%*
Lantern Learning Trust	174	5	105	25	39	*22.4%*	*21.8%*
Rothwell	278	1	172	43	62	*22.3%*	*17.6%*
ESNW	220	3	134	34	49	*22.3%*	*17.5%*
Temple Newsam Halton	277	1	178	37	61	*22.0%*	*23.2%*
Bramley	303	1	187	49	66	*21.8%*	*22.4%*
2gether	288	6	185	35	62	*21.5%*	*22.3%*
Brigshaw	217	1	143	32	41	*18.9%*	*20.0%*
Headingley-Kirkstall	195	3	124	33	35	*17.9%*	*20.6%*
Aireborough	359	4	247	46	62	*17.3%*	*14.3%*
Morley	437	1	295	67	74	*16.9%*	*18.4%*
Pudsey	479	2	346	57	74	*15.4%*	*16.1%*
EPOS	240	-	181	22	37	*15.4%*	*12.3%*
ARM	524	5	371	68	80	*15.3%*	*15.5%*
Garforth	170	4	121	22	23	*13.5%*	*17.8%*
Otley/Pool/Bramhope	201	4	148	24	25	*12.4%*	*13.9%*
Horsforth	187	3	148	16	20	*10.7%*	*9.4%*
Leeds Resident	6,553	67	4,208	909	1,369	*20.9%*	*20.3%*

Table 7: Percentage of obesity by <u>school cluster</u> of residence for Reception and Year 6 from 2015/16 to 2019/20

	Single Years *percent* obesity									
	Reception					Year 6				
	2015/16	2016/17	2017/18	2018/19	2019/20	2015/16	2016/17	2017/18	2018/19	2018/19
2gether	10.2	9.3	9.6	11.3	10.5	22.2	22.1	23.4	22.0	21.5
ACES	12.7	10.9	11.4	11.8	10.3	25.7	21.0	25.9	26.7	26.2
Aireborough	7.0	5.3	6.1	5.6	11.5	14.1	12.8	14.9	12.6	17.3
ARM	7.7	6.6	7.7	7.8	7.6	17.5	15.2	15.2	14.5	15.3
Beeston, Cottingley and Middleton	9.6	11.9	9.9	11.1	12.7	24.9	25.2	26.1	27.0	27.7
Bramley	7.9	8.8	9.5	13.2	13.4	24.5	23.6	17.9	24.1	21.8
Brigshaw	11.4	7.8	11.6	9.3	10.2	19.3	20.8	19.7	20.9	18.9
EPOS	6.0	4.9	5.5	6.7	6.7	12.5	12.0	8.6	13.6	15.4
ESNW	6.4	5.9	9.6	11.2	7.9	17.6	15.5	17.0	15.6	22.3
Farnley	7.2	10.4	9.4	7.5	21.3	26.7	15.9	19.1	20.2	23.9
Garforth	6.0	6.5	7.6	6.1	6.4	22.5	19.4	17.5	15.9	13.5
Headingley - Kirkstall partnership	8.6	8.2	8.4	8.1	6.3	20.7	21.1	20.1	22.2	17.9
Horsforth	5.0	5.9	4.1	8.5	6.9	9.7	8.0	7.3	11.3	10.7
Inner East	12.3	10.6	13.3	11.5	13.8	24.9	25.1	25.4	26.6	30.3
J.E.S.S.	10.0	11.6	13.5	13.5	11.6	24.6	25.5	30.9	31.7	28.7
Lantern Learning Trust	9.7	9.5	10.7	11.0	9.6	17.4	20.5	26.0	21.9	22.4
Leodis	7.3	8.4	9.2	9.0	9.4	13.9	14.9	20.0	19.3	23.2
Morley	6.2	8.4	8.1	5.8	9.6	17.3	20.4	17.6	19.7	16.9
Otley/Pool/Bramhope	2.7	4.5	5.8	6.2	8.5	14.1	11.7	14.8	16.3	12.4
Pudsey	8.5	7.9	6.5	7.0	7.2	16.7	15.8	15.3	17.3	15.4
Rothwell	8.9	3.8	9.3	8.5	6.8	18.6	16.9	14.4	16.8	22.3
Seacroft Manston	8.0	8.8	12.7	14.2	14.2	26.3	21.2	23.1	24.0	27.4
Templenewsam Halton	11.1	11.9	10.3	11.1	11.6	22.5	20.4	25.7	25.7	22.0
Leeds schools	8.7	8.5	9.5	9.8	10.1	19.3	20.4	19.2	19.9	20.9

The Clusters with the highest and lowest rates of obesity in each year group are highlighted in yellow and grey respectively.

Table 8: Aggregated percentage from 2015/16 to 2019/20 of obese Reception and Year 6 children by <u>ward</u>

	5 Year *percent* obesity						
	Reception				Year 6		
	2015/16 to 2019/20	Upper	Lower		2015/16 to 2019/20	Upper	Lower
Adel and Wharfedale	5.6	7.1	4.1		13.8	16.3	11.4
Alwoodley	7.4	8.8	5.9		16.9	19.3	14.4
Ardsley and Robin Hood	8.9	10.5	7.2		18.9	21.4	16.5
Armley	9.7	11.3	8.0		23.8	26.6	21.0
Beeston and Holbeck	12.1	13.7	10.4		27.4	30.1	24.7
Bramley and Stanningley	11.1	12.8	9.4		22.5	25.2	19.9
Burmantofts and Richmond Hill	13.4	15.0	11.7		25.5	28.0	23.0
Calverley and Farsley	7.7	9.2	6.3		14.9	17.1	12.7
Chapel Allerton	10.5	12.2	8.8		21.6	24.1	19.1
Cross Gates and Whinmoor	11.1	12.8	9.3		21.9	24.5	19.3
Farnley and Wortley	10.6	12.4	8.8		22.3	24.9	19.6
Garforth and Swillington	7.9	9.7	6.2		18.8	21.5	16.2
Gipton and Harehills	10.8	12.2	9.5		27.2	29.4	25.0
Guiseley and Rawdon	6.7	8.1	5.3		13.4	15.4	11.4
Harewood	6.2	7.8	4.5		13.0	15.6	10.4
Headingley and Hyde Park	8.1	10.6	5.5		20.0	24.5	15.5
Horsforth	5.9	7.1	4.6		9.8	11.6	8.0
Hunslet and Riverside	11.4	13.1	9.6		29.9	33.0	26.8
Killingbeck and Seacroft	10.9	12.5	9.3		25.2	27.7	22.7
Kippax and Methley	9.2	11.0	7.4		19.5	22.1	16.9
Kirkstall	9.5	11.4	7.5		24.8	28.3	21.4
Little London and Woodhouse	9.9	12.1	7.7		21.1	24.8	17.3
Middleton Park	11.2	12.6	9.8		26.1	28.5	23.8
Moortown	8.2	9.8	6.6		14.0	16.2	11.7
Morley North	6.9	8.5	5.4		16.4	18.7	14.0
Morley South	8.0	9.6	6.3		20.1	22.7	17.5
Otley and Yeadon	7.0	8.6	5.3		16.5	19.0	14.0
Pudsey	7.2	8.6	5.8		17.5	19.8	15.2
Rothwell	6.9	8.5	5.3		16.9	19.4	14.4
Roundhay	7.2	8.6	5.8		15.2	17.3	13.2
Temple Newsam	11.8	13.6	9.9		24.1	26.8	21.3
Weetwood	8.8	10.8	6.9		17.5	20.2	14.7
Wetherby	5.7	7.4	4.1		12.1	14.5	9.7

The Wards with the highest and lowest rates of obesity in each year group are highlighted in yellow and grey respectively.

Table 9: Percentage of obesity rates for Reception and Year 6 by ward from 2015/16 to 2019/20

	Single Years *percent* obesity									
	Reception					Year 6				
	2015/16	2016/17	2017/18	2018/19	2019/20	2015/16	2016/17	2017/18	2018/19	2019/20
Adel and Wharfedale	2.9	5.2	6.2	8.7	4.8	10.7	15.7	9.8	15.6	16.9
Alwoodley	6.7	6.0	7.9	7.7	9.1	20.3	18.9	15.8	15.1	14.4
Ardsley and Robin Hood	9.1	6.3	10.4	8.3	11.0	15.4	16.7	18.0	19.9	26.1
Armley	8.6	10.3	9.7	9.9	10.0	23.6	23.9	20.1	27.3	24.2
Beeston and Holbeck	9.6	13.9	11.5	13.4	12.1	24.6	22.2	29.1	29.4	31.2
Bramley and Stanningley	8.5	8.8	10.0	15.6	16.2	26.0	21.3	18.3	24.9	22.2
Burmantofts and Richmond Hill	13.6	12.5	12.9	11.6	19.1	24.2	25.3	25.5	24.2	29.1
Calverley and Farsley	6.0	10.1	7.8	6.2	8.7	15.1	15.5	12.0	18.0	13.4
Chapel Allerton	11.7	10.8	8.9	9.6	12.3	19.6	21.7	21.6	24.2	20.2
Cross Gates and Whinmoor	6.1	9.5	12.2	14.6	13.4	23.7	19.1	20.8	23.6	22.8
Farnley and Wortley	10.5	10.1	10.8	9.3	17.8	26.1	18.2	23.1	20.3	24.5
Garforth and Swillington	9.5	8.6	8.7	4.9	8.0	24.4	20.4	19.1	16.1	14.1
Gipton and Harehills	11.0	8.7	12.3	12.6	8.0	26.8	25.2	27.1	27.5	32.4
Guiseley and Rawdon	7.5	5.0	5.5	5.8	13.8	14.2	12.8	13.8	9.2	17.5
Harewood	6.4	3.9	5.5	6.5	9.0	14.6	11.3	7.6	18.7	12.3
Headingley and Hyde Park	7.4	9.0	6.7	7.4	10.5	13.9	15.3	23.5	23.4	24.4
Horsforth	4.8	5.6	3.9	8.4	6.5	10.1	8.5	7.6	11.9	11.0
Hunslet and Riverside	6.4	10.6	13.6	14.5	11.8	25.6	27.2	36.1	32.4	26.7
Killingbeck and Seacroft	8.5	7.5	13.6	12.4	13.6	27.5	20.6	25.3	23.4	29.3
Kippax and Methley	9.4	5.9	11.0	10.8	8.6	17.3	20.4	18.8	20.5	20.4
Kirkstall	9.7	10.1	11.1	7.9	7.4	25.2	26.1	26.7	25.8	19.2
Little London and Woodhouse	10.6	9.8	10.0	11.7	5.9	19.4	24.6	20.9	20.8	19.5
Middleton Park	12.5	10.5	11.0	9.9	12.3	25.3	26.8	22.7	29.0	26.3
Moortown	6.7	7.7	9.3	8.8	8.9	13.9	15.7	13.2	11.6	16.1
Morley North	4.9	7.3	9.3	4.6	9.3	16.0	16.8	16.8	16.3	16.1
Morley South	6.9	9.0	6.9	7.9	10.1	17.7	21.1	20.0	22.6	19.3
Otley and Yeadon	4.6	6.0	7.0	5.6	12.1	15.1	13.3	18.6	19.8	15.3
Pudsey	10.8	5.9	5.3	7.6	5.8	18.1	16.3	18.5	16.5	17.7
Rothwell	8.4	4.9	8.5	8.3	3.8	19.5	17.4	13.4	15.4	19.8
Roundhay	8.0	6.8	6.7	8.8	4.2	16.3	11.9	16.6	14.8	16.4
Temple Newsam	11.9	12.0	10.2	12.4	12.5	22.7	22.4	26.5	26.0	23.0
Weetwood	9.3	4.9	10.1	10.6	8.8	22.3	11.9	19.2	14.7	20.7
Wetherby	6.2	5.8	5.5	6.1	4.2	11.5	12.2	10.2	10.9	17.5

The Wards with the highest and lowest rates of obesity in each year group and year are highlighted in yellow and grey respectively.

	Leeds Child Healthy Weight Plan:	

Vision: Every child in Leeds will be a healthy weight.

Principles:
- All children will have access to what they need to be a healthy weight and all care givers will feel confident and be equipped to raise their child to be a healthy weight
- Families who are most at risk will be identified early and well supported by a highly skilled workforce
- The current healthy weight inequalities gaps will be narrowed.
- Leeds will be the best city to raise a family to be a healthy weight

Indicator: Obesity rates aged 2-3 years , Reception and Year 6 including health inequalities data

Outcomes	Priorities	Indicators
Leeds is an environment /city which support families to be a healthy weight.	Whole School Approach. Leisure and Green space Healthy built environment Active travel LA Healthy weight charter work including Leeds Food Charter	Increased consumption of healthy snacks especially fruit and vegetables Reduced consumption of sugary drinks and calorie dense high fat and sugar snacks Increased levels of physical activity Reduced levels of sedentariness
All children will have the best start to achieve a healthy weight	Maternal obesity Breast feeding Weaning /HAPPY HENRY Healthy Child Programme Healthy Start in Childcare	BMI in pregnancy Breast feeding initiation and continuation rates Number of families engaged in HENRY Number of nursery providers engaged in Healthy Start in Childcare BMI at 2-3 years Early Years Foundation Stage Physical development score
The causes that put particular groups of children at higher risk of an unhealthy weight will be addressed	Community based lifestyle and environmental interventions (Locality / targeted approach)	Gap in obesity rates at 2-3 years, 4-5 years and 11-12 years between children from Leeds most and least deprived IMD decile.
All children and families have information and support including from a skilled workforce to enable them to be a healthy weight	HENRY incl peer champions Restorative approach to practice Change4life and linked local social marketing work. Local implementation of national digital offer Wider workforce development	Workforce engagement in CPD and feedback Numbers of local families & practitioners signed up to Change4life
Children who are an unhealthy weight are identified early and supported	2-3 year BMI data collection NCMP Integrated Healthy Living activities and services Secondary paediatric support	Child obesity levels & healthy weight levels at 2-3 years ,4-5 years and 11-12 years Child Health Weight Service activity data
Key Leeds stakeholders will work with the government and other bodies to shape national policy and practice	Lobbying Consultation and partnership work	Increase in fiscal, food production and marketing measures that support children to be a healthy weight.