
National Child Measurement Programme

Leicester
2019/20 school year



Leicester
City Council

Key facts for Leicester children

This report presents findings from the National Child Measurement Programme (NCMP) for the 2019-20 school year.

It covers children in Reception (aged 4-5 years) and Year 6 (aged 10-11 years) in mainstream state-maintained schools in Leicester.

The report contains analyses of Body Mass Index (BMI) classification rates by age, sex and ethnicity as well as analysis at a local level.

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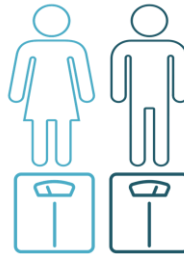


In Reception obesity prevalence remained similar to 2018/19, at 9%.

Year
6



Obesity prevalence also remained similar to 2018/9 for Year 6s, at 24%.



Year 6 boys were significantly less likely to be a healthy weight than girls.



Underweight prevalence was higher than England for both Year 6 and Reception. Obesity prevalence was higher than England for Year 6.

NCMP Data is a National Statistic



National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is NHS Digital's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

Find out more about the Code of Practice for Official Statistics at:

www.statisticsauthority.gov.uk/assessment/code-of-practice.

Introduction

This report is based on the [NCMP report for England](#).

Child obesity is a good indicator of adult obesity which can lead to poor health outcomes.

The NCMP provides reliable data on rates of childhood obesity. Children are measured in Reception (aged 4–5 years) and Year 6 (aged 10–11 years) in mainstream state-maintained schools¹ in every local authority in England.

The programme was launched in the 2005/06 academic year and now holds twelve years of reliable data².

NCMP data enables local areas to plan services to tackle child obesity and monitor progress.

In Leicester, and most other local authorities, parents also receive feedback on their child's weight status along with the offer of further advice and support on achieving a healthy weight for their child.

This report contains analyses of the 2019/20 data showing Body Mass Index (BMI) classification rates with breakdowns by: child age and sex; local authority and region; levels of deprivation; as well as comparisons with other local authorities and England

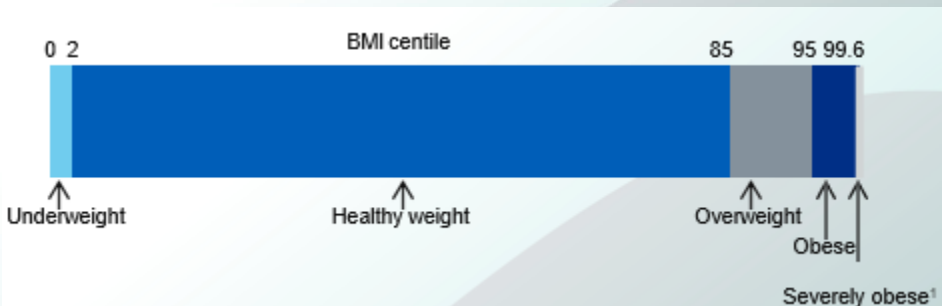
Comparisons between groups and over time have been statistically tested to determine whether differences are likely to be genuine (i.e. statistically significant) or the result of random natural variation. Only statistically significant differences have been described with terms such as “higher”, “lower”, “increase” or “decrease”.

1. Independent and special schools are excluded. See “Coverage” in [annex B](#) for more details.
2. 2006/07 is the first year that the data are considered to be robust due to the low participation in 2005/06.

Technical information

Body Mass Index is calculated by dividing a child's weight in kilograms by their height in meters squared (kg/m^2).

The BMI classification of each child is derived by calculating the child's BMI centile and classifying as shown in the diagram below. This calculation uses age and sex as well as height and weight to take into account different growth patterns in boys and girls at different ages.



The NCMP uses the British 1990 growth reference (UK90) to define the BMI classifications. This approach is recommended by The National Institute for Health and Care Excellence (NICE).

The prevalence of children in a BMI classification is calculated by dividing the number of children in that BMI classification by the total number of children and multiplying the result by 100.

Geographical analyses in this report are all based on the postcode of the child's home address which is mapped to a lower super output area.

1. The BMI classification "Severely obese" is a subset of "Obese". Children with a BMI centile of between 95 and 100 are classified as "Obese" and those with a BMI centile of between 99.6 and 100 are classified as "Severely obese". **For more information:** See [annex B](#)

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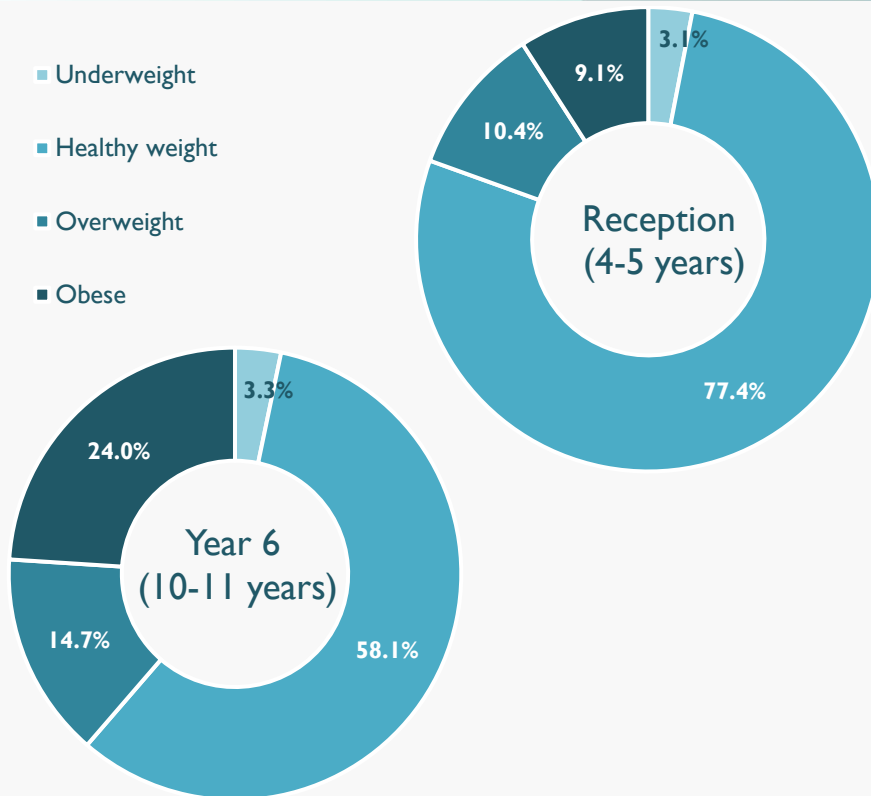
Age

In Leicester, around three quarters (77%) of Reception children were a healthy weight. In Year 6 it was significantly lower, with six in ten (58%) children a healthy weight.

Obesity prevalence was more than twice as high in Year 6 (nearly one in four obese) compared to Reception year (one in eleven obese). This equates to 1039 obese children in Year 6 and 378 in Reception.

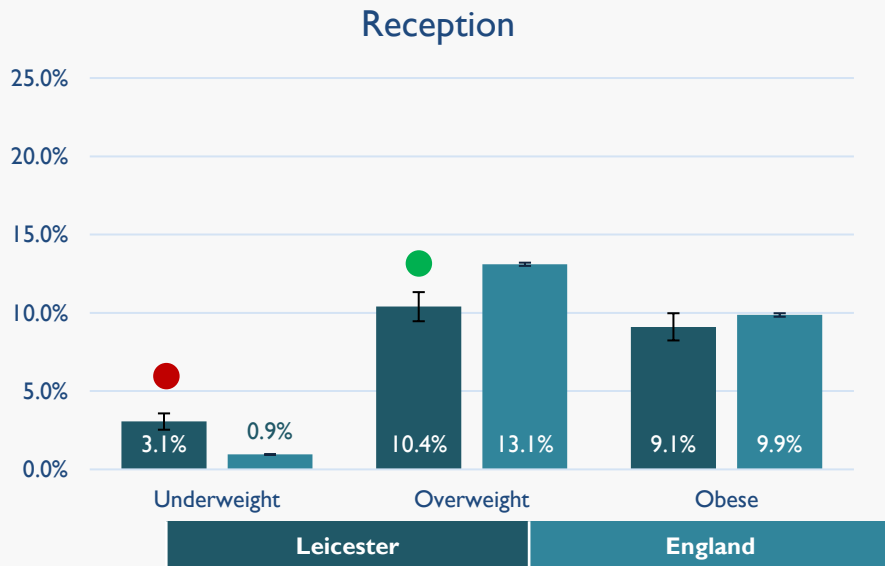
Children in Year 6 were also more likely to be overweight than Reception year children.

The proportion of underweight children was not significantly different between Reception and Year 6.

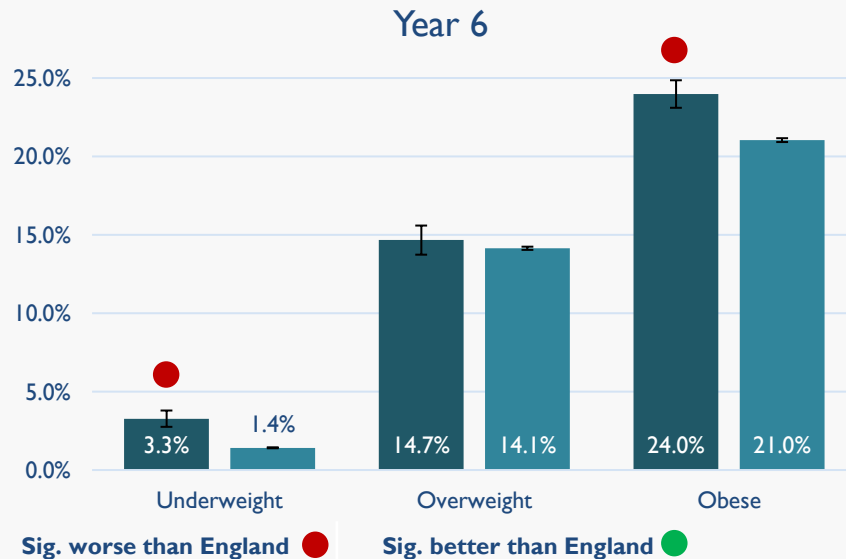


England comparison

Reception children in Leicester were three times as likely to be underweight than in England overall. Obesity prevalence was similar to England while overweight prevalence was significantly lower.



In Year 6, children were significantly more likely to be underweight or obese than children in England.

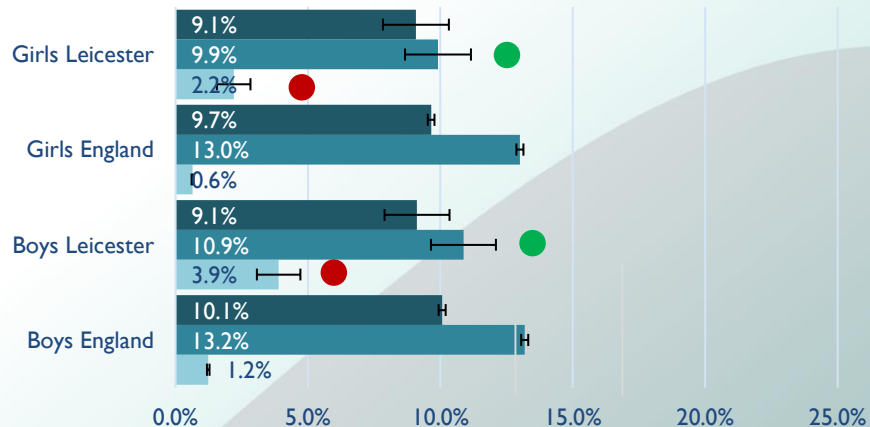


Sex

In Reception, similar proportions of boys and girls in Leicester are overweight or obese. In England, boys and girls are significantly more likely to be overweight than obese.

Both boys and girls in Leicester are significantly more likely to be underweight than their England peers in Reception. Boys are more likely to be underweight than girls.

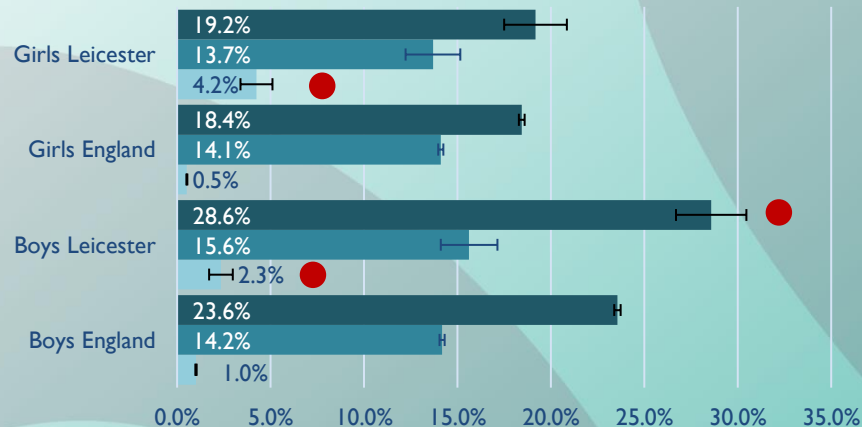
Reception Year



In Year 6, boys are significantly more likely to be obese than girls in both Leicester and England.

Underweight prevalence is higher in Year 6 boys and girls in Leicester than boys and girls in England. Within Leicester underweight levels are similar between boys and girls whilst in England, girls have higher levels of underweight than boys in England

Year 6

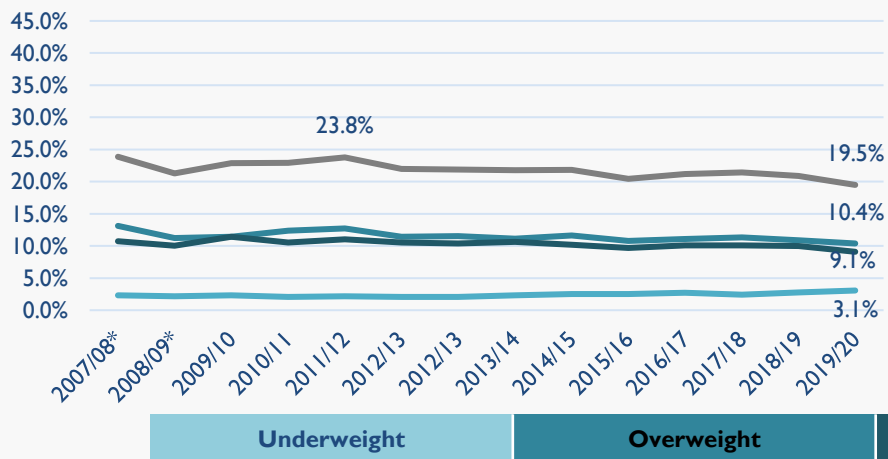


The proportion of children in the healthy weight category is not shown as it would lengthen the scale making the differences for the other categories harder to see.

Time series

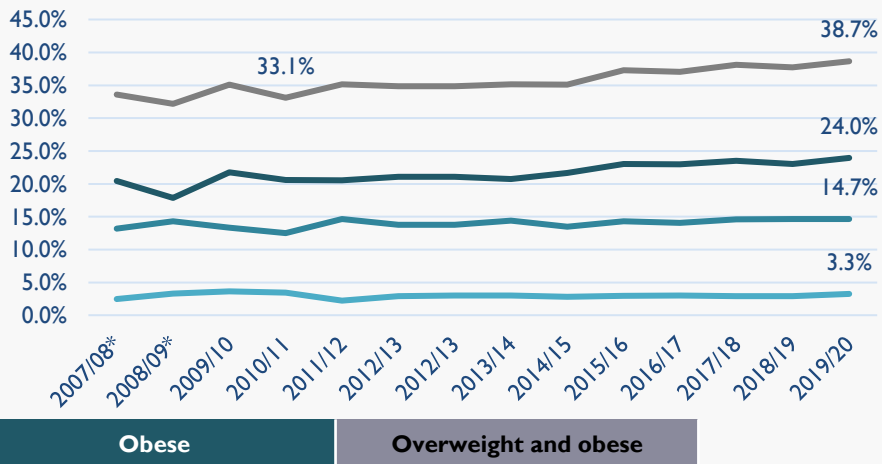
Excess weight prevalence in Reception year children is now significantly lower compared with every year before 2011/12, although there have been no statistically significant changes when the obese and overweight categories are taken alone.

Reception



For Year 6 children, rates of underweight, overweight and obesity prevalence individually have not changed significantly. However, when overweight and obesity prevalence are combined, the increase since 2010/11 is statistically significant.

Year 6



*For Year 6 comparisons are not possible with the first years of the NCMP (2006/07 to 2008/09) as obesity prevalence was an underestimate due to low participation. This, and the impact of other improvements in data quality, should be considered when making comparisons over time. More details in [annex B](#).

Technical information – BMI and ethnicity

Obesity is a term used to describe abnormal or excessive fat accumulation that may impair health.

BMI has been found to underestimate body fat in South Asian children both in Reception and Year 6, and overestimate body fat in Black African children in Year 6.¹

Overweight and obesity prevalence is likely to be lower among Black Year 6 children than reported. Underweight prevalence may be lower and obesity and overweight prevalence higher than reported for Asian children in both age groups.

Relative to England overall, Leicester has large Black and South Asian populations. 43% of children in both Reception and Year 6 measured in 2019/20 were Asian, and 10% of Year 6 children were Black.

This means city-wide underweight prevalence is likely to be lower than reported and overweight and obesity prevalence is likely to be higher.

Comparisons between ethnic groups will also be affected: the true gap in obesity prevalence between White and Asian Reception children may be smaller than BMI scores suggest, for example.

Body fat mis-estimations apply to all members of a specific ethnic group so comparisons between ethnic groups at a Leicester and England level, as presented by slide 12, should not be affected.

1. Further information on ethnicity and BMI is available in this [Public Health England briefing](#).

Ethnicity

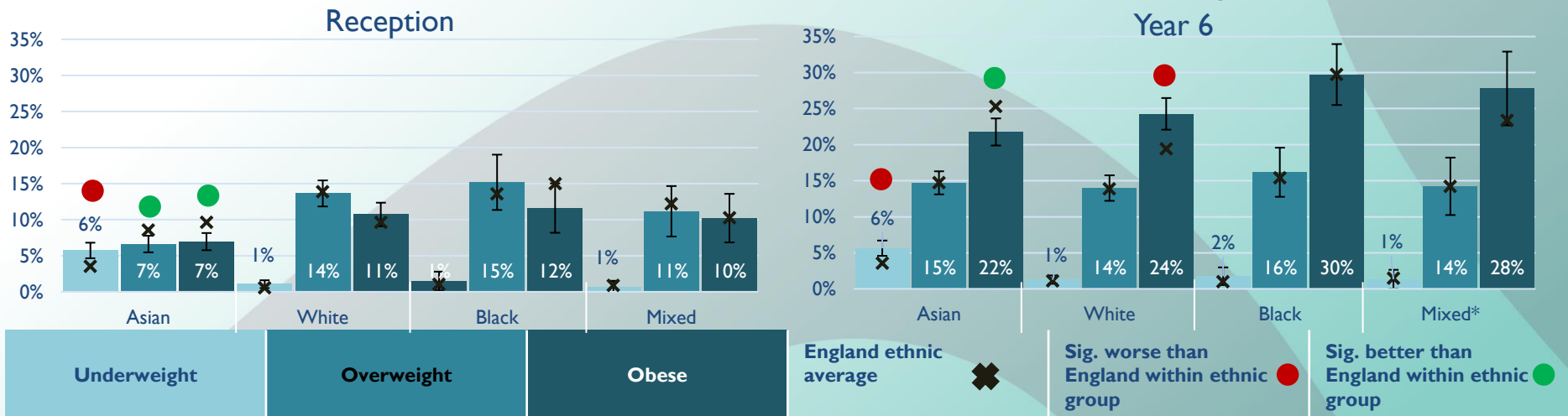
Similar to England, Reception children of White and Black ethnicities are more likely to be obese or overweight than Asian children.

Asian children in both Reception and Year 6 were significantly more likely to be underweight, and less likely to be obese compared with Asian children in England overall.

Obesity prevalence was higher in Year 6 than Reception across all ethnic groups. This difference is most stark among Asian children, for whom obesity prevalence was more than three times higher in Year 6 than Reception.

Among Year 6 children in Leicester, obesity prevalence was similar across ethnic groups.

Comparing children in Leicester with children of the same ethnicity in England, obesity prevalence was significantly higher among Leicester White Year 6s than White Year 6s in England overall.



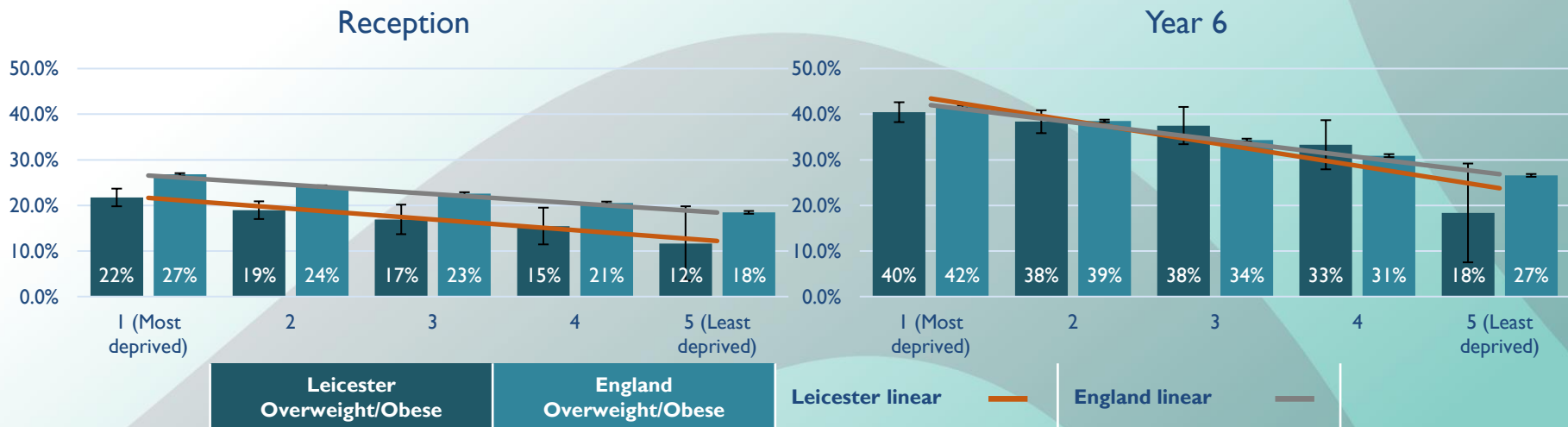
*Data for 'other' and 'Chinese' ethnic groups as well as Reception year underweight for Reception Black and Y6 Mixed has been suppressed due to small numbers. | 2
 Ethnic categories displayed here have been derived by combining lower level NHS ethnic categories. Lower level breakdowns are available.

Deprivation (National)¹ – Reception and Year 6

There is a clear relationship between excess weight (overweight and obesity) prevalence and deprivation. In England, Reception children who live in the most deprived areas are almost 50% more likely to be overweight or obese than children in the least deprived areas.

In both age groups in Leicester the least deprived are significantly less likely to be overweight or obese than the most deprived. However incremental differences in excess weight prevalence between quintiles are less visible and not statistically significant in Leicester.

In both England and Leicester underweight prevalence was similar for all quintiles in both age groups.



1. Deprivation is defined by the national ranking of the Local Super Output Area (LSOA) where the child lives based on the Indices of Multiple Deprivation 2019. These are grouped into fifths (quintiles) for analysis and presentation.

Deprivation (Local)¹ – Reception and Year 6

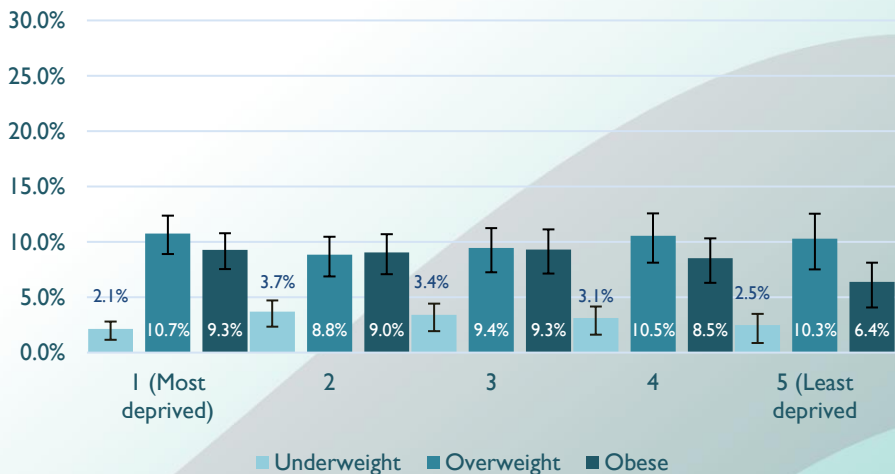
Only a small number of Leicester children live in the most least deprived areas of England. Here, deprivation quintile is based on ranking among only LSOAs in the Leicester local authority district to help identify local health inequalities.

For reception year there were no significant differences between any weight categorisations by locally defined deprivation quintile.

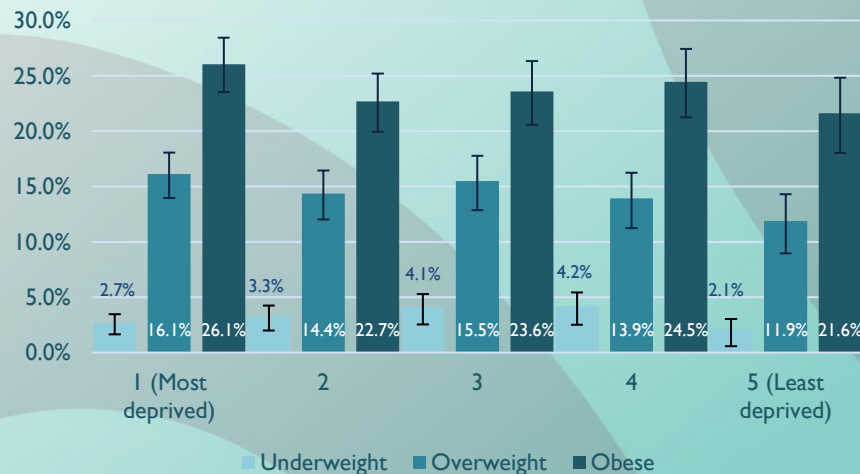
For Year 6 there were no significant differences in underweight, overweight or obesity prevalence between locally defined deprivation quintiles.

When obese and overweight were combined, excess weight prevalence was significantly higher in the most deprived areas (42.2%) compared to the least deprived (33.5%)

Reception



Year 6



1. Here, deprivation is defined by the ranking of the Index of Multiple deprivation scores (2019) for the Lower Super Output Areas (LSOA) within Leicester only. The previous slide uses the ranking of the LSOA deprivation scores across England

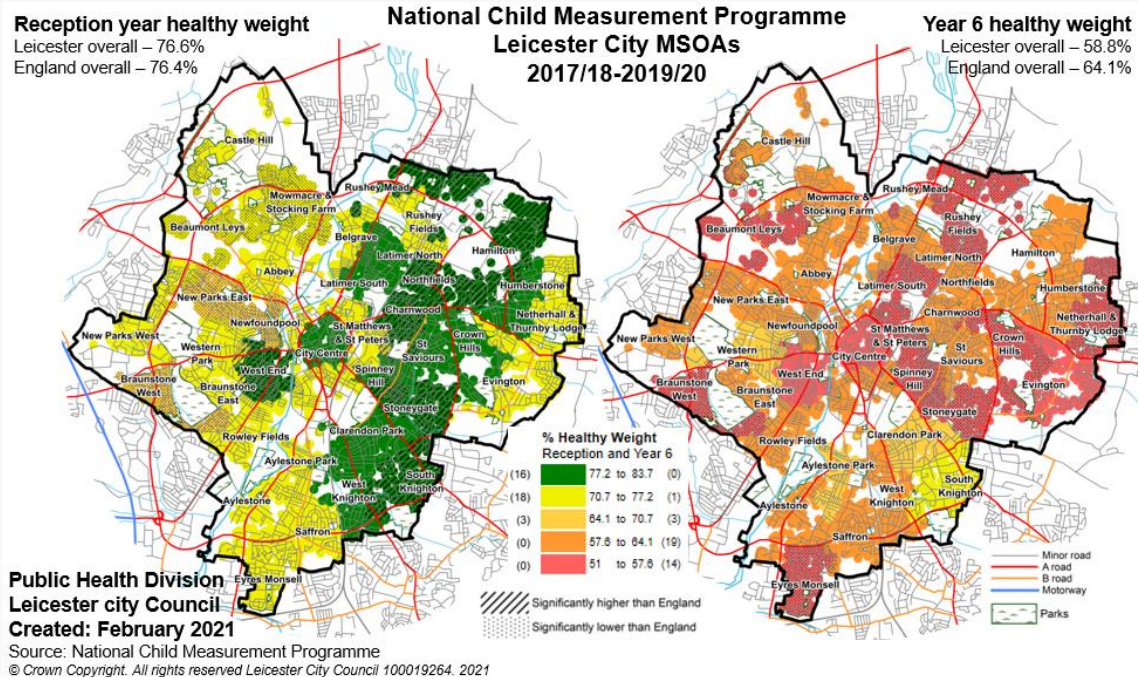
Healthy weight prevalence – Reception and Year 6

Reception year children in seven Leicester MSOAs were significantly more likely to be a healthy weight than their peers in England. Five of these areas were in the East of the city, and had large Asian populations. South Knighton and West End, two of the least deprived areas in Leicester, also had a significantly higher healthy weight prevalence than England among reception year children.

Healthy weight prevalence in reception was significantly lower than England in five MSOAs, all in the West of the city. New Parks West was the lowest, at 69%.

The prevalence of healthy weight was higher for reception children than year 6 children in every Leicester MSOA. Areas with the highest healthy weight disparity between year groups were typically in the East of the city. The largest gap in healthy weight between reception year and year 6 was in City Centre North (30% lower) and smallest in New Parks East (7% lower).

For year 6, 11 of Leicester's 37 MSOAs had significantly lower healthy weight prevalence than England. The lowest was Rushey Fields, where only 51% were a healthy weight.



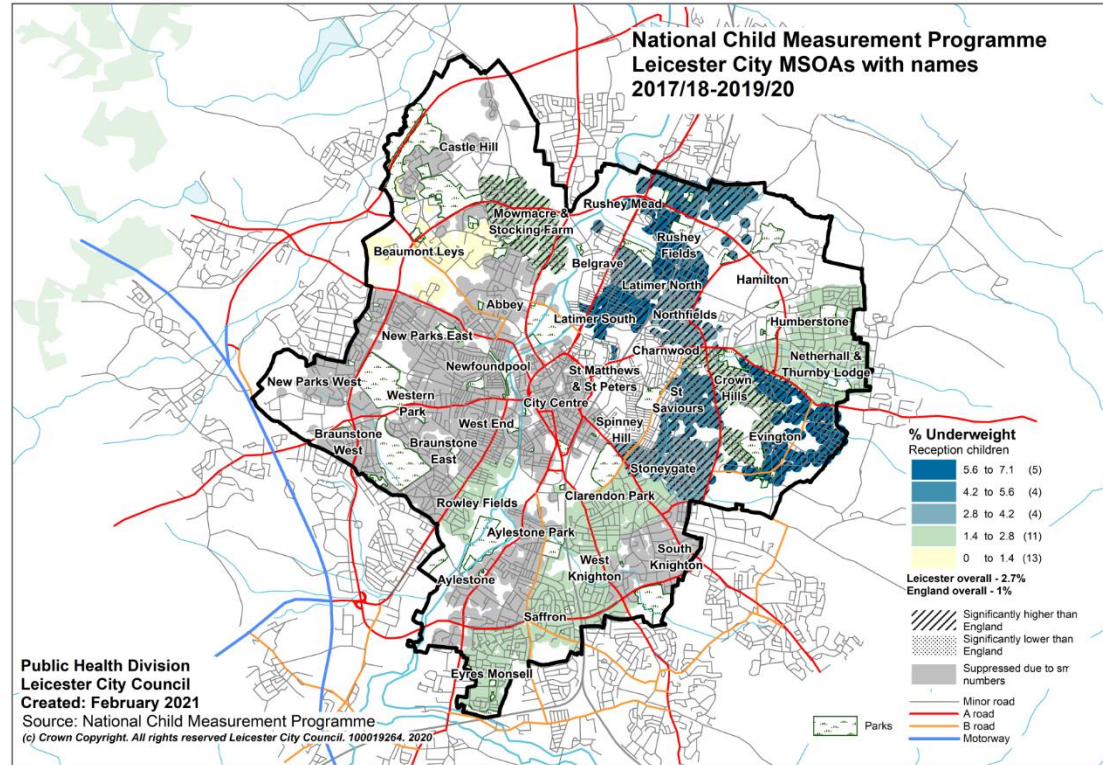
A Middle Super Output Area (MSOA) is a with a population of around 8500 people. MSOAs in Leicester have been given informal names. Three-year averages have been used to avoid suppression of data when dealing with small areas.

Underweight prevalence – Reception

The number of underweight reception children is generally very low, and cannot be reported for some parts of the city. However, there are clear differences in the concentration across Leicester.

Areas with high underweight prevalence correspond to areas with large South Asian populations, mostly in the East and North of the city. Rushey Fields (7%), Evington (6.9%), and Belgrave (6.7%) had the highest underweight prevalence.

In some areas of Leicester, no underweight reception year children were reported between 2017/18 and 2019/20.



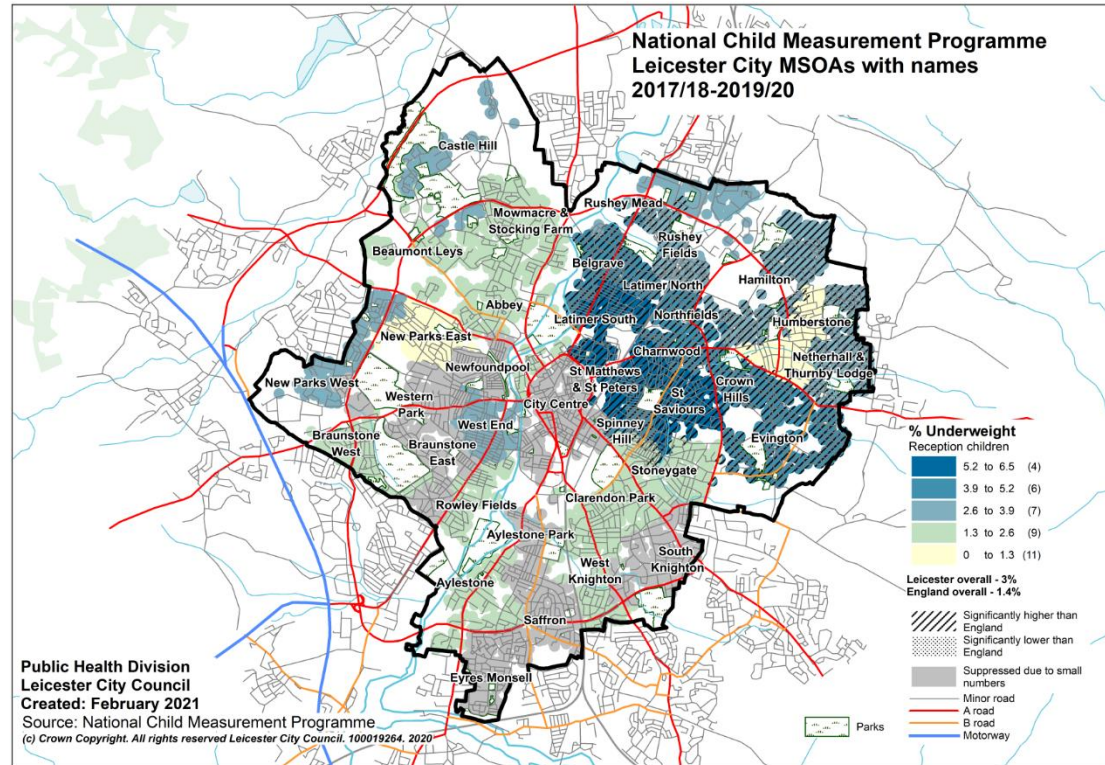
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Underweight prevalence – Year 6

13 of Leicester's 37 MSOAs had a significantly higher underweight prevalence in year 6 than England.

As with reception year, underweight prevalence was generally higher among year 6s in the east of Leicester. St. Matthews and St. Peters (6.4%), Charnwood (6%), Latimer South (5.8%) and St. Saviours (5.3%) had underweight prevalence above 5%.

Some areas of the city, generally in the South and West, had very few underweight year 6s.

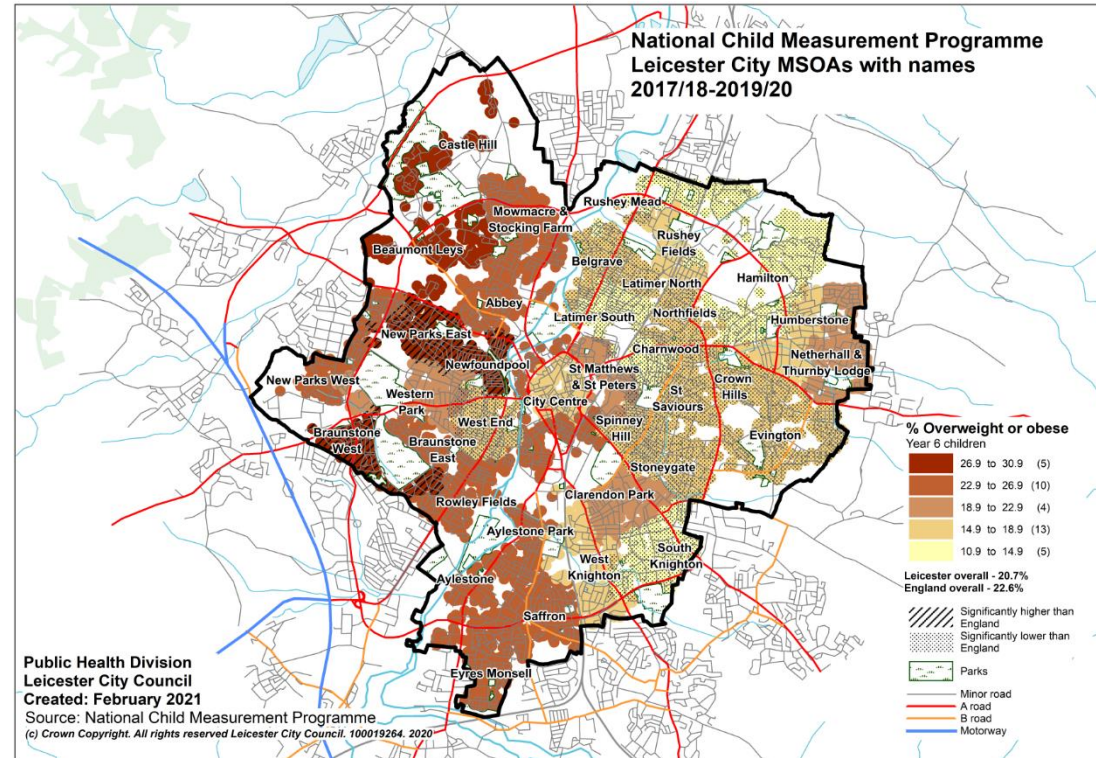


A Middle Super Output Area (MSOA) is a with a population of around 8500 people. MSOAs in Leicester have been given informal names. Three-year averages have been used to avoid suppression of data when dealing with small areas.

Obesity and overweight prevalence – Reception

In reception year, children in the West of the city were significantly more likely to be overweight or obese than England overall. New Parks East (31%), Braunstone West (29%), Newfoundpool (29%), had the highest combined overweight and obesity prevalence.

Children in 14 of Leicester's 37 MSOAs were significantly less likely to be overweight or obese compared to England. Latimer South (14%), Rushey Mead (13%), and Charnwood (11%) had the lowest combined overweight and obesity prevalence.



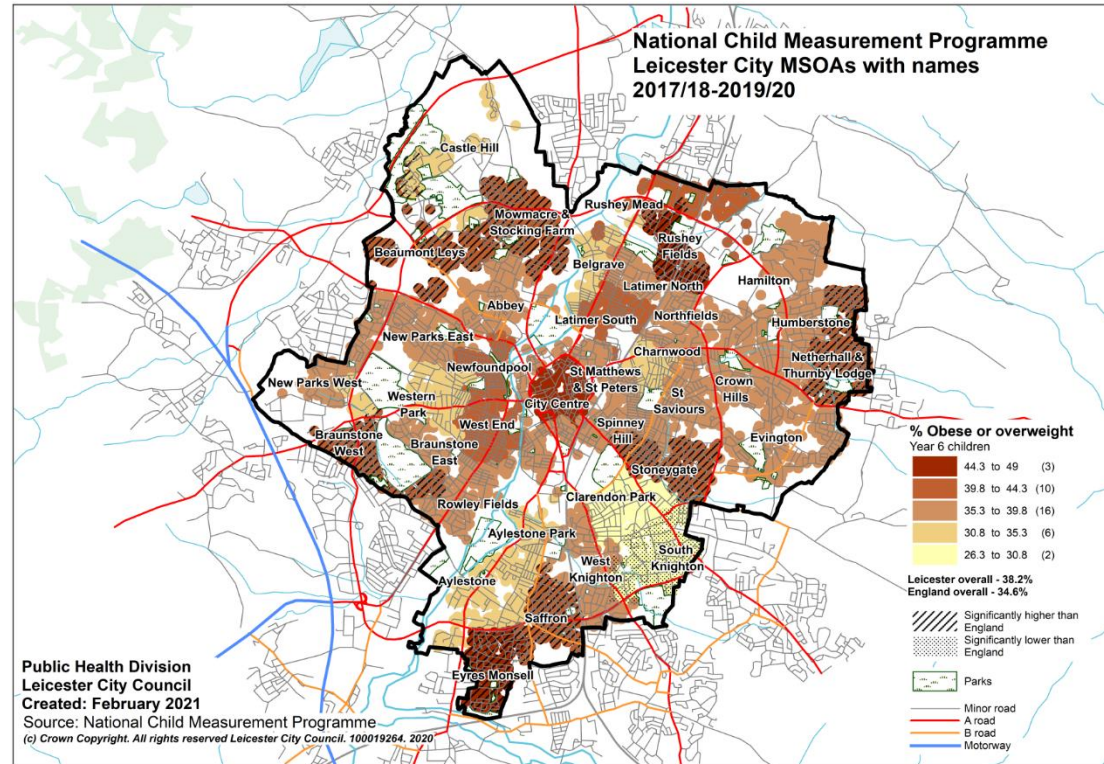
A Middle Super Output Area (MSOA) is a with a population of around 8500 people. MSOAs in Leicester have been given informal names. Three-year averages have been used to avoid suppression of data when dealing with small areas.

Obesity and overweight prevalence – Year 6

Combined overweight and obesity prevalence was significantly higher than England in 8 of Leicester's 37 Middle Super Output Areas.

Pockets of high overweight/obesity prevalence were reported throughout the city: Rushey Fields (45%) in the North, Netherhall and Thurnby Lodge (43%) in the East, Eyres Monsell (45%) in the South, and Braunstone West (42%) were among the areas with significantly higher rates than England.

Areas in the Southeast of the city reported generally lower obesity prevalence. Only South Knighton (14%) had a significantly lower combined obesity and overweight prevalence than England.



A Middle Super Output Area (MSOA) is a with a population of around 8500 people. MSOAs in Leicester have been given informal names. Three-year averages have been used to avoid suppression of data when dealing with small areas.

Participation – Leicester and comparators¹

The NCMP collection ended in March 2020 when schools closed in response to the covid-19 pandemic. Some local authorities had completed their measurements, some were part way through, and some had yet to start their programme.

Data for each local authority has been given a reliability rating based on sample size compared to the mean of the previous three years of results rather than by eligible population as in previous years.

This measure has been used to divide LAs into 3 categories:

- $\geq 75\%$ measured data is considered reliable estimate and comparable to analyses reported in previous years
 - $\geq 25\%$ to $< 75\%$ data is fit for publication, but caution is advised when using the outputs due to low numbers measured
 - $< 25\%$ data has been suppressed from publication due to small sample sizes that may present an unreliable picture of NCMP outputs in that region

On average, Local authorities in England submitted samples 66% the size of the previous three year mean for Reception and 86% the size of the previous three year mean for Year 6.

In Leicester both Reception and Year 6 datasets were considered reliable.

4151 Reception year children were measured in 2019/20, representing 97% of the average number of children measured based on the previous three years.

4333 Year 6 year children were measured in 2019/20, representing 103% of the average number of children measured in the previous three years.

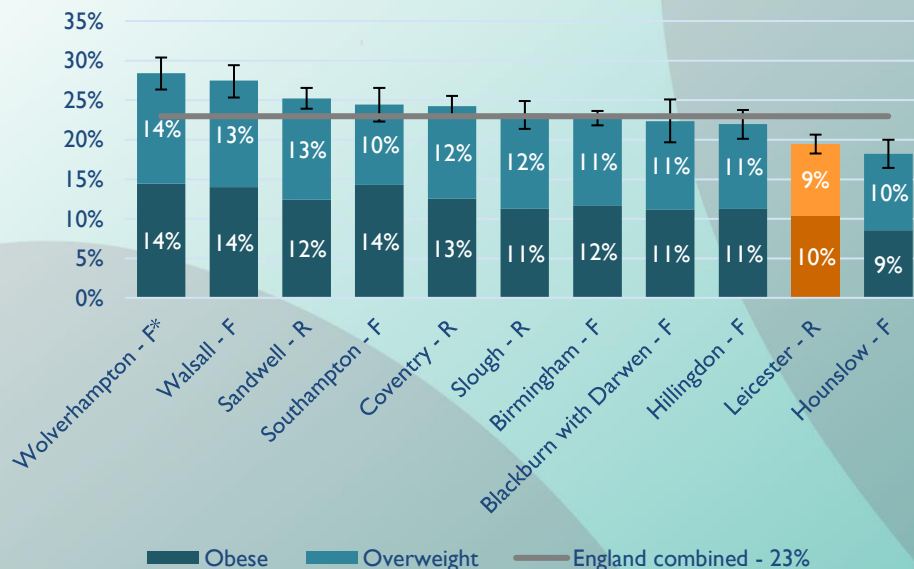
DfE Comparator Authorities¹ – Reception Year

19% of Leicester Reception year children were obese or overweight. Leicester's overweight and obesity prevalence was among the lowest of its peer comparators, and lower than the England average.

All of Leicester's comparators except Blackburn with Darwen (22%), Hillingdon (22%), and Hounslow (18%)² had significantly higher excess weight prevalence.

Underweight prevalence in Leicester (3.1%) was significantly higher than Sandwell (2.1%), Walsall (1.6%), Birmingham (1.4%), Wolverhampton (1.3%), Southampton (1%), and Coventry (1.1%).

Overweight and obese combined



Confidence intervals are based on combined obese and overweight totals.

¹ The National Foundation for Educational Research (NFER) was commissioned in 2007 by the Department for Education (DfE) to identify and group similar Local Authorities in terms of the socio-economic characteristics. This was updated following the release of 2011 Census data. Each Local Authority was assigned 10 'statistical neighbours'.

² Does not tally with chart due to rounding

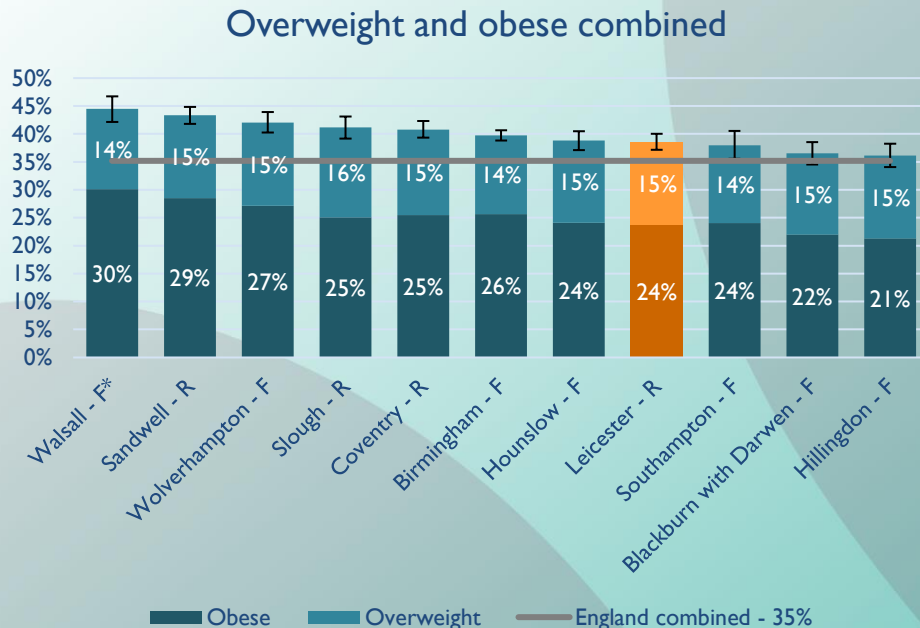
*Data for each local authority has been given a reliability rating based on sample size (R = Reliable, F = Fit for publishing but interpret with caution). See slide 20.

DfE Comparator Authorities¹ – Year 6

39% of Leicester year six children were obese or overweight. Walsall (44%), Sandwell (43%), and Wolverhampton (42%) had a significantly higher prevalence of overweight or obese children in Year 6 compared to Leicester.

Of Leicester's comparators only Blackburn with Darwen and Hillingdon had a lower excess weight prevalence than England.

Underweight prevalence in Leicester (3.3%) was significantly higher than Birmingham (2.3%), Sandwell (2.1%), Walsall (1.9%), Wolverhampton (1.4%), Southampton (1.4%), and Coventry (1.4%).

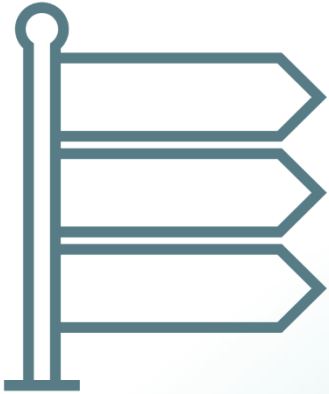


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Useful links



[Leicester Children and Young People's Joint Strategic Needs Assessment](#)

[Leicester Children's Health and Wellbeing Survey 2016](#)

[National Child Measurement Programme](#)

[Public Health England Obesity, Diet and Physical Activity Data and Analysis Tools](#)

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