National Child Measurement Programme (NCMP)

Leicester: 2022/23 school year

Date: Apr 2024
Source: OHID and NCMP enhanced dataset
Prepared by:
Public Health Intelligence
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Leicester
City Council

National Child Measurement Programme

The NCMP was launched in the 2005/06 academic year and collects annual measurements of the height and weight of over one million children in Reception (age 4-5 years) and Year 6 (age 10-11 years) in mainstream state-maintained schools in every local authority in England.* Based on their measurements, children are then allocated to a weight category.

Parents 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. For children with excess weight, the NCMP data enables local areas to plan services to tackle child obesity and monitor progress.

This report contains analyses of the 2022/23 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".

Note*: Independent and special schools are excluded.
.2006/07 is the first year that the data are considered to be robust due to the low participation in 2005/06.
Data collection in 2020/21 was disrupted due to COVID-19 and therefore this data is excluded from analysis.

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.

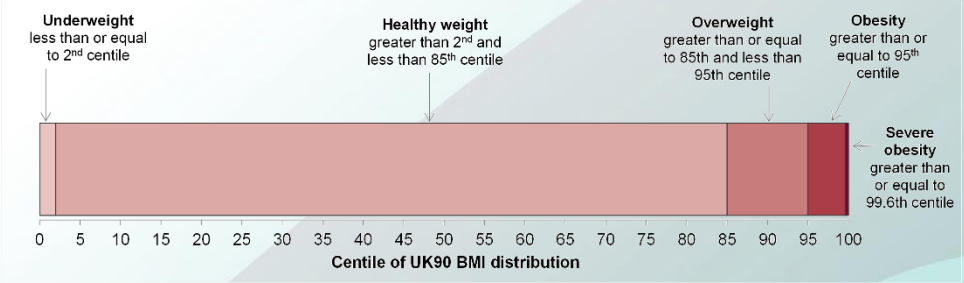
It is NHS Digital's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be 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.

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 super output areas.

Note: 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"

Language Matters: Obesity

Obesity is a complex issue that can be attributed to a combination of environmental and medical factors. Given the sensitivity of the topic and stigma that those living with obesity can face, there is a widespread drive to neutralise the language used when referring to individuals whose weight is above or below what is clinically healthy.

The Body Mass Index (BMI) findings discussed in the following slide pack are based upon a scientific measure with medical classifications. Therefore, the clinical terms ‘underweight’, ‘healthy’, ‘overweight’, ‘obese’ and ‘severely obese’ will be used in graphs and tables to facilitate an accurate description of results.

Nevertheless, the interpretation of these findings will follow the neutral, person-centred conventions used in wider communication e.g. result letters to parents. This means describing children as ‘living with’ obesity rather than ‘being’ obese, for example.

Key facts for Leicester children: 2022/23

Year R

In Reception, around 1 in 5 (19.1%) were classified as living with overweight or obesity. In England overall, this was 21.3%.

Both boys and girls in Reception are significantly more likely to be underweight, compared to their England peers.

Boys in Reception are significantly less likely to have a BMI in the overweight or obese category compared to their England peers.

Reception year Asian children were significantly more likely to be classed as underweight, while White British children were significantly more likely to have a BMI in the overweight and obese category compared to their England peers.

Time series data shows that overweight and obesity has remained relatively stable over the past decade in Reception year children.

Year 6

In Year 6, around 2 in 5 (38.4%) children had a BMI classification of overweight or obese, which is significantly higher than for England overall at 36.6%.

Year 6 children are significantly more likely to be underweight compared to year 6 children in England. Year 6 boys are also significantly more likely to be living with obesity compared to their England peers (year 6 boys in England).

Obesity is significantly more likely in Year 6 boys than girls.

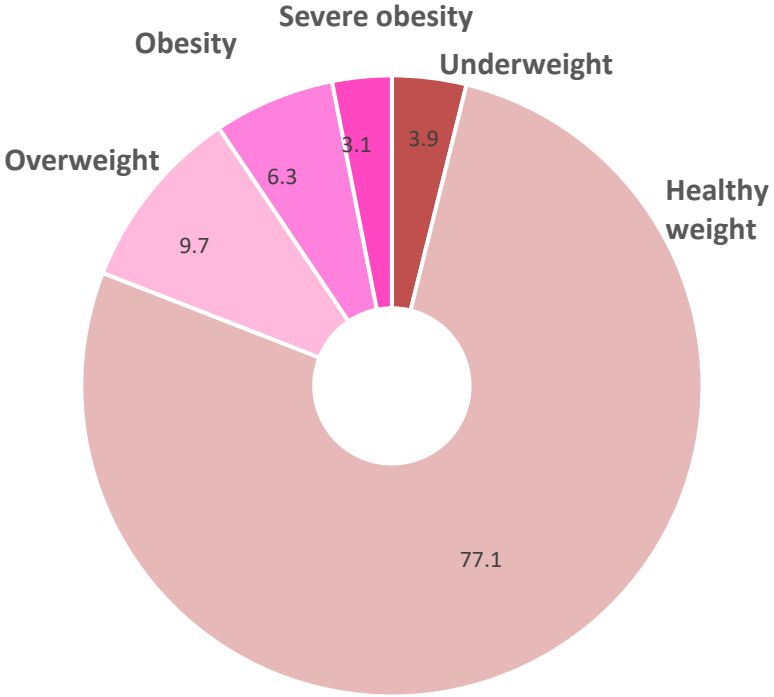
Year 6 Asian children were significantly more likely to have a BMI in the underweight category, while White British children were significantly more likely to have theirs in overweight and obese.

Time series data shows that overweight and obesity has been on an upward trend over the past decade in Year 6 children.

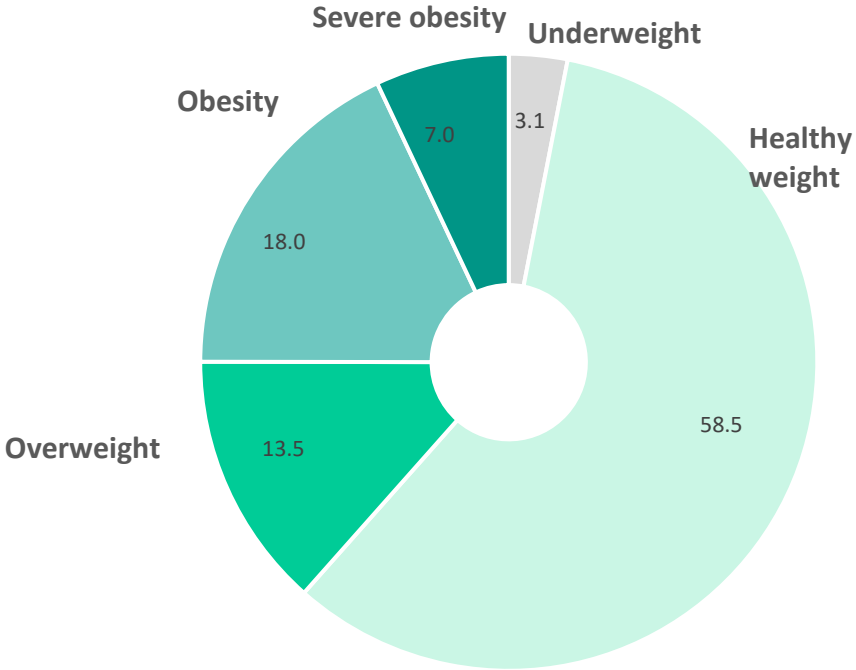
BMI status of children by **year-group** in Leicester

National Child Measurement Programme 2022/2023

Reception: BMI categories, Leicester, 2022/23



Year-6: BMI categories, Leicester, 2022/23



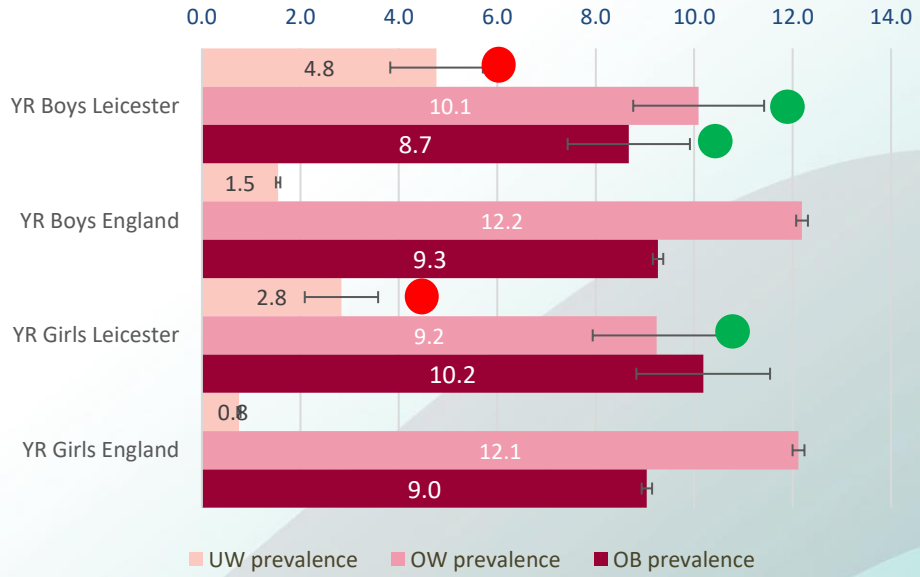
BMI status of children by **year-group** and **sex** in Leicester and England

National Child Measurement Programme 2022/2023

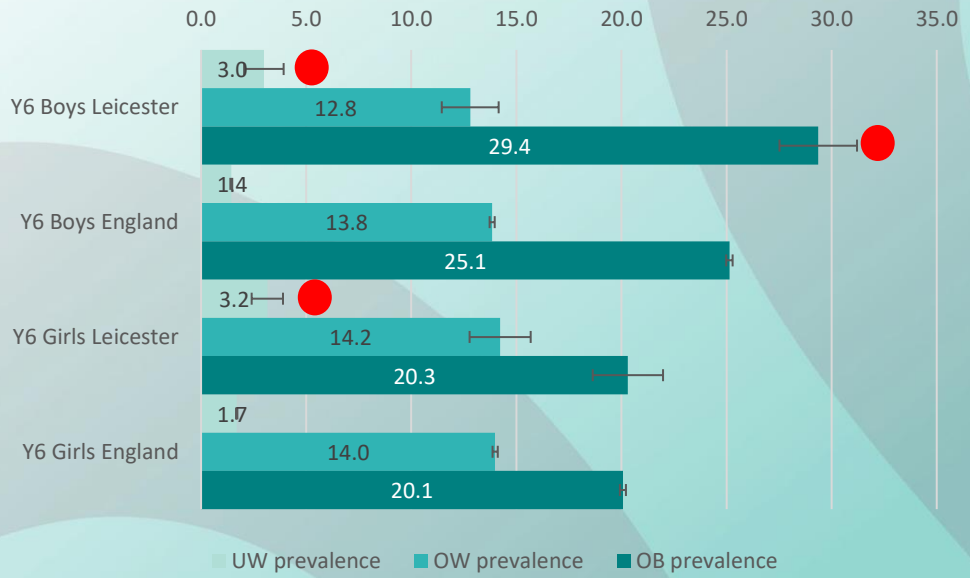
In Reception, both boys and girls are significantly more likely to be underweight than their England peers, and boys are significantly less likely to be living with overweight or obesity than their England peers.

In Year-6, both boys and girls are significantly more likely to be underweight than their England peers, and boys are significantly more likely to have an obese BMI than their England peers.

Reception: prevalence of underweight, overweight and obesity 2022/23



Year 6: prevalence of underweight, overweight and obesity 2022/23

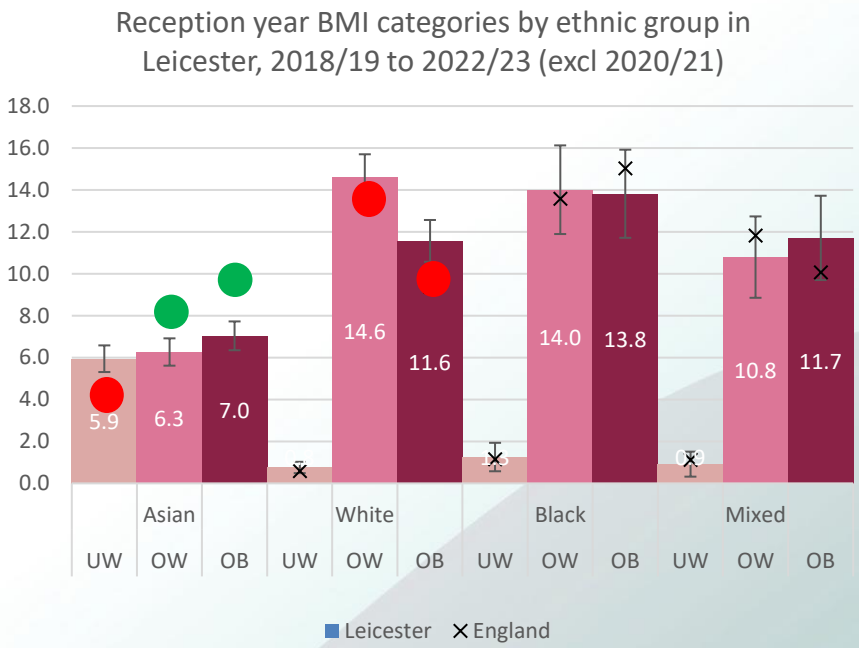


Sig. worse than England

Sig. better than England

BMI status by **ethnicity:** prevalence by broad ethnic group in Leicester and England

National Child Measurement Programme



In Reception year, children of Asian ethnicity were significantly more likely to be underweight and were significantly less likely to be overweight and obese, when compared to their England peers.*

Children in Leicester of White ethnicity with overweight and obesity was significantly more prevalent compared to their England peers.

There were no significant differences between Leicester and England for Reception children of Black or Mixed ethnicity.

England Peers refers to children within the same ethnic group

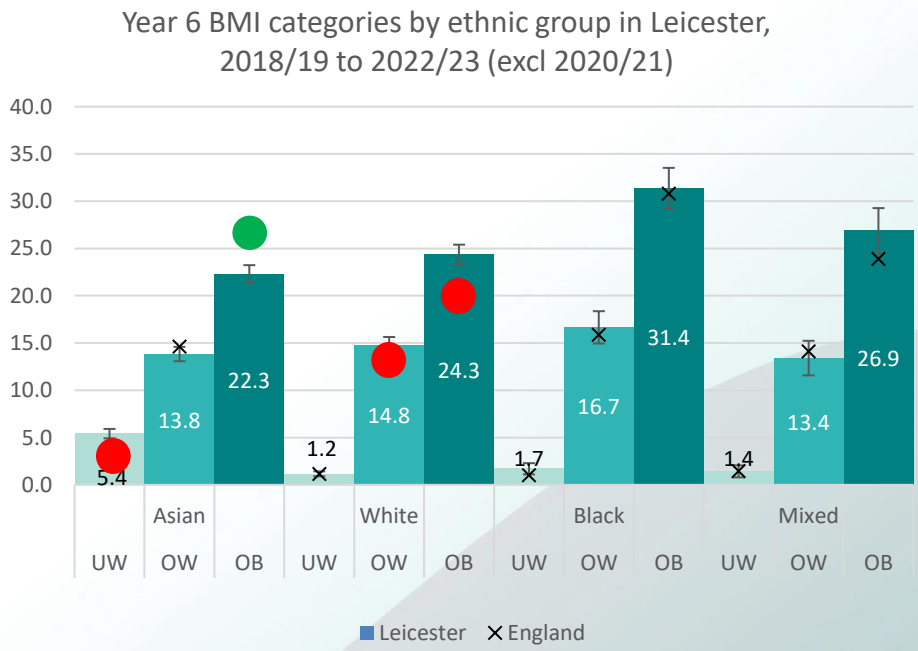
Note: BMI has been found to underestimate body fat in South Asian children both in Reception and Year 6. Leicester has a large South Asian population which may partly explain why underweight prevalence is higher in the city. [1]

Underweight	Overweight	Obese	England ethnic average	Sig. worse than England within ethnic group	Sig. better than England within ethnic group

1. Further information here

BMI status by **ethnicity:** prevalence by broad ethnic group in Leicester and England

National Child Measurement Programme



A BMI classification of underweight in Year 6 children of Asian ethnicity was significantly more likely when compared to England peers.*

A BMI classification of obese in Year 6 children of Asian ethnicity was significantly more likely when compared to England peers.*

Children of White ethnicity were significantly more likely to be overweight and obese compared to England peers.

There were no significant differences between Leicester and England for Year 6 children of Black and Mixed ethnicity.

England Peers refers to children within the same ethnic group

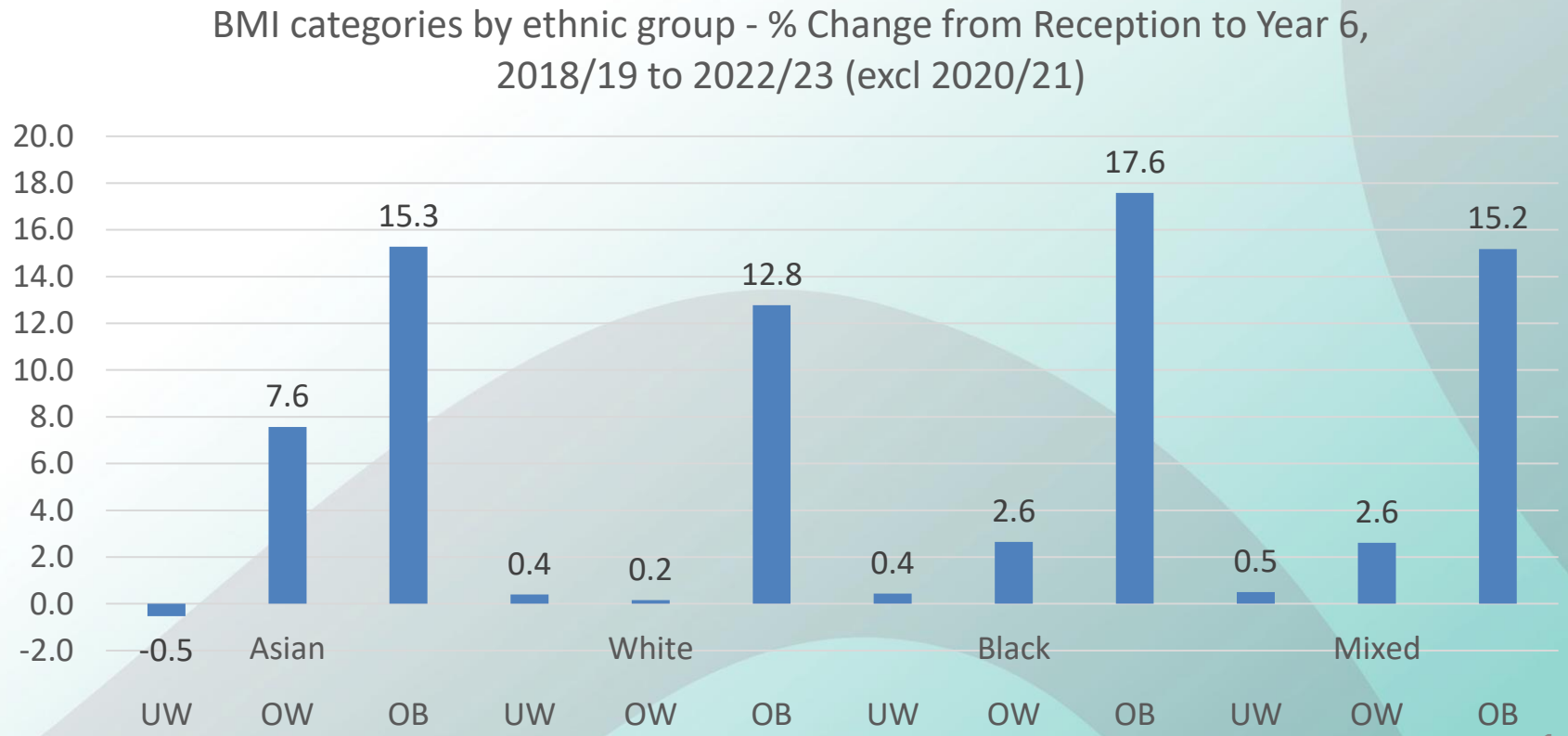
Note: BMI has been found to underestimate body fat in South Asian children both in Reception and Year 6. Leicester has a large South Asian population which may partly explain why underweight prevalence is higher in the city. [1]

Underweight	Overweight	Obese	England ethnic average	Sig. worse than England within ethnic group	Sig. better than England within ethnic group

1. Further information here

BMI status by **ethnicity:** prevalence by broad ethnic group in Leicester and England

Changes in weight from reception to year 6 children: 2018/19 to 2022/23 (exc. 2020/21)

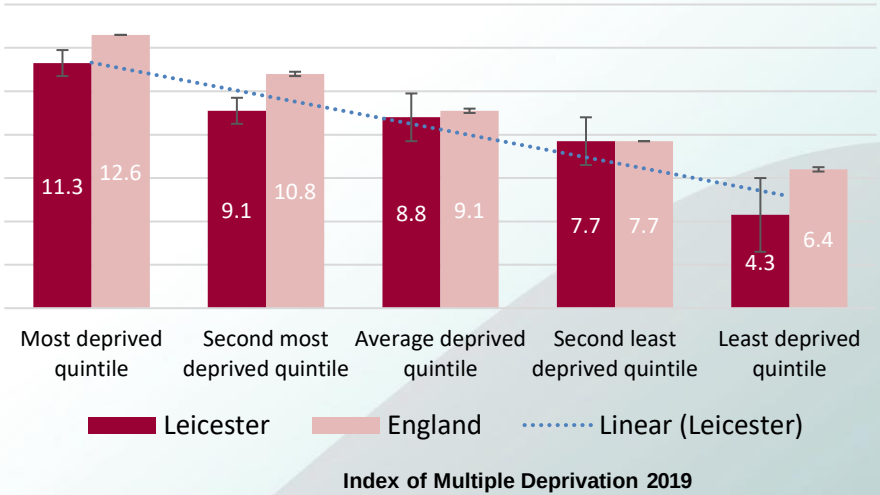


BMI status by deprivation: Obesity prevalence by deprivation in Leicester

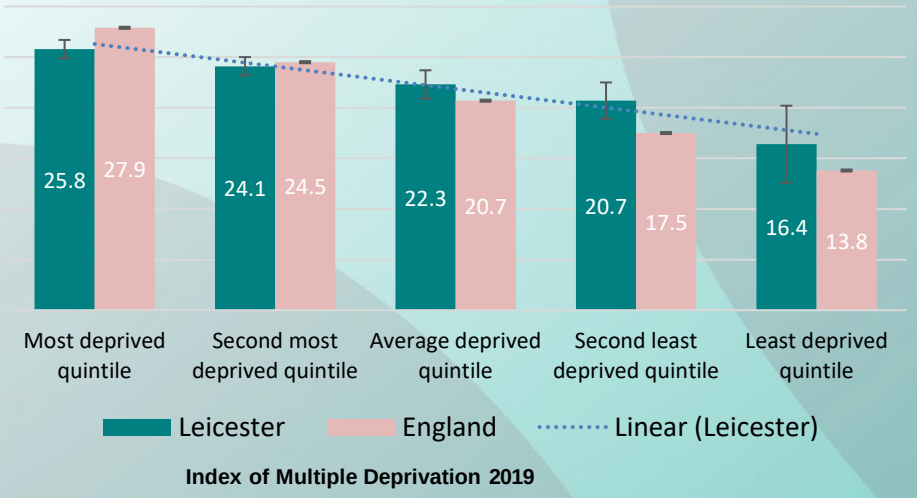
National Child Measurement Programme

A clear gradient can be seen between deprivation and obesity for both Reception year and Year 6 children, with those in the more deprived quintiles reporting *higher* obesity rates, and those in the least deprived quintiles reporting *lower* obesity rates.

Reception prevalence of obesity (including severe obesity), 5 years data combined 2018/19 - 22/23



Year 6 prevalence of obesity (including severe obesity), 5 years data combined 2018/19 - 22/23



95% confidence intervals are displayed on the chart

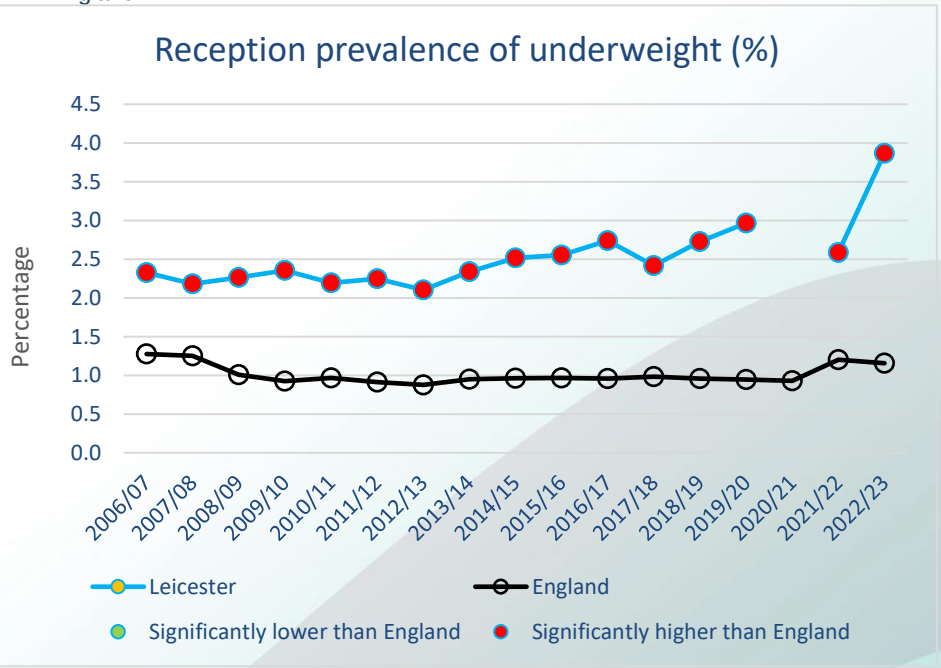
Note: Charts exclude 2020/21 data

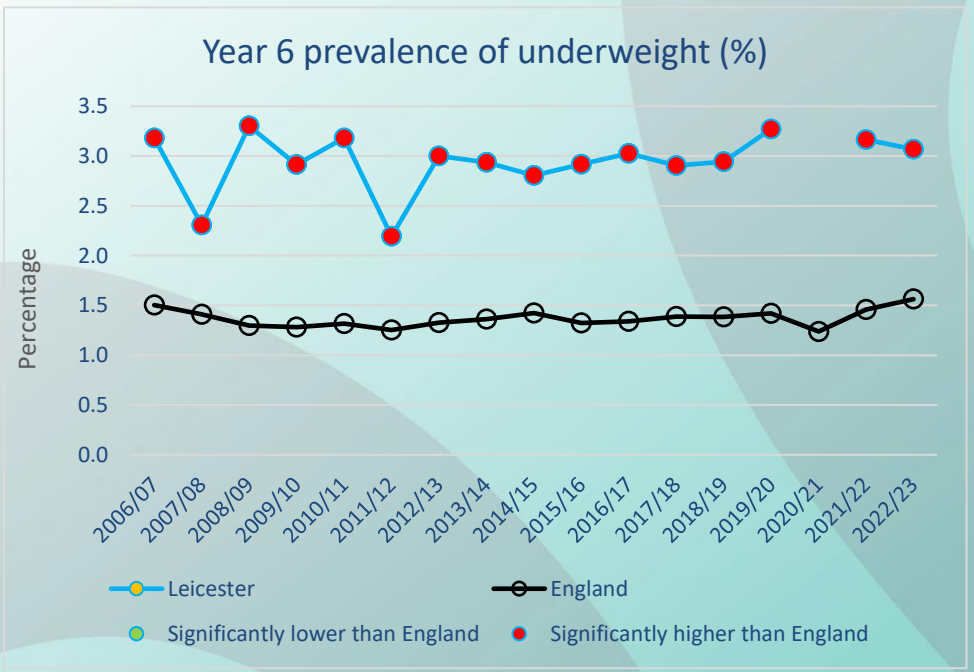
Trend in the prevalence of **underweight**

National Child Measurement Programme 2006/2007 to 2022/23

In Reception, the prevalence of underweight children in Leicester has increased over the past decade, with a particularly large increase between 2021/22 and 2022/23. Underweight prevalence remains significantly higher than England.

In Year 6, the prevalence of underweight children has remained relatively unchanged over the past decade. Underweight prevalence remains significantly higher than England.

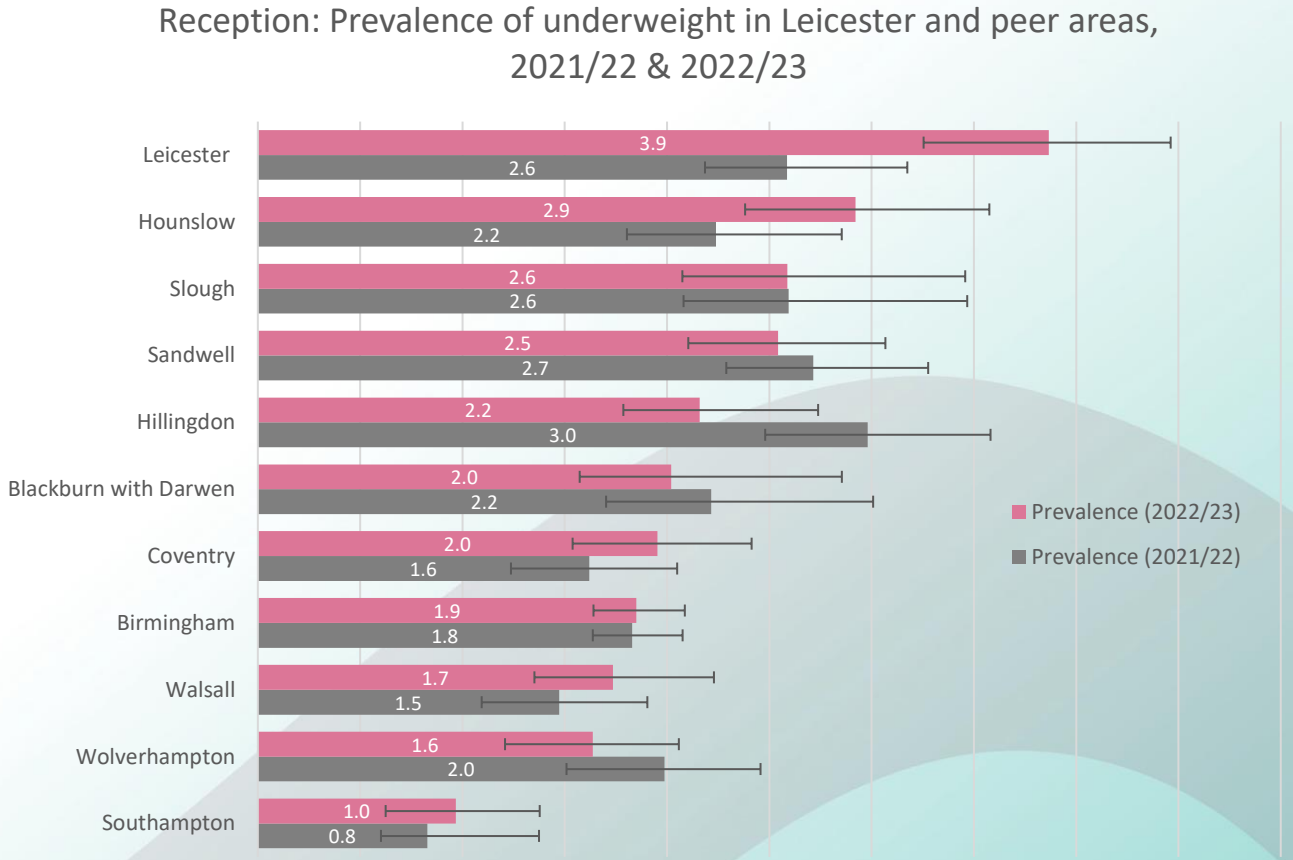




Missing data point denotes missing data for 2020/2021

Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/2007 to 2008/2009) as low participation levels led to underestimation of obesity prevalence

Reception underweight 2022/23 - Comparators



The prevalence of underweight amongst Reception children examined in Leicester is 3.9%.

This is a large, significant increase from the previous year and the highest prevalence recorded since the NCMP programme began.

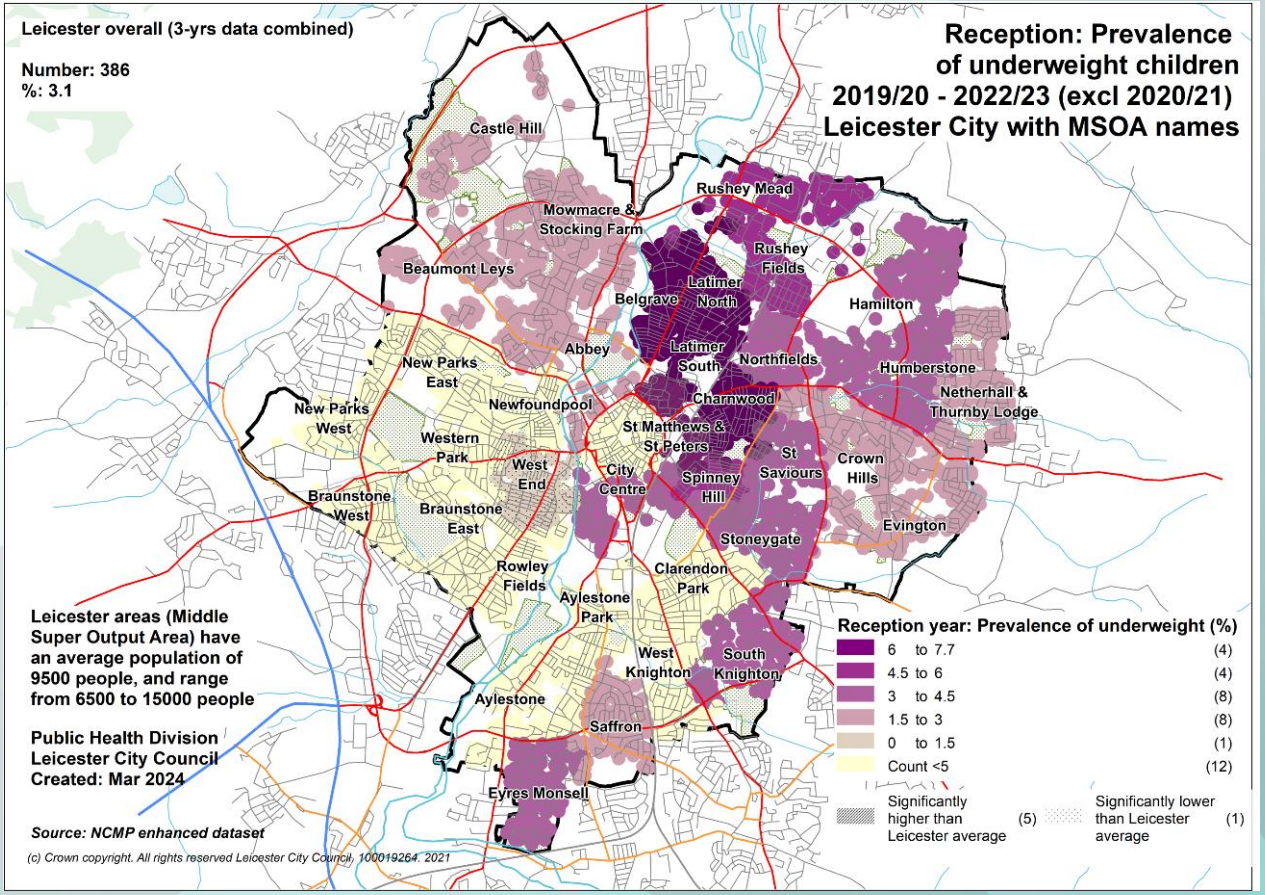
Amongst Leicester's peer areas, there has been *no significant change* in the prevalence of underweight amongst Reception aged children amongst comparator areas between 2021/22 and 2022/23.

Reception underweight 2022/23 - MSOA

Amongst Reception aged children, those to the East of the city are more likely to be classed as ‘underweight’. Spinney Hill (7.4%), Belgrave South (7.3%) and Belgrave Northwest (7.7%) had the highest combined prevalence of underweight, and in all three cases the prevalence was significantly higher than the city’s average.

Eyres Monsell and Saffron have combined prevalence's that are higher than expected. This has been linked to a sudden spike in the counts of children with underweight in the academic year 2019/20 that, while low, are not in line with the existing trend. This increase cannot be attributed to population changes or data quality issues and is suspected to be by chance. This is because in the years following 2019/20, counts for children with underweight return to expected counts.

Reception aged children in 10 of Leicester’s MSOAs were significantly less likely to be measured as ‘underweight’. Notably, in New Parks & Stokeswood, and Newfoundpool, the combined prevalence of underweight was zero.



Three-year averages have been used to avoid suppression of data when dealing with small areas.

Reception underweight 2022/23 – Leicester ethnicity

There has been a significant increase in the percentage of underweight reception children in the last year.

Further analysis of the underweight reception population reveals underweight prevalence is significantly higher for Asian British Children. For other ethnic groups numbers are low or below 7 and therefore suppressed.

Analysis by local geography shows that underweight prevalence is significantly higher in Belgrave and Rushey Mead.

Reception year: prevalence of Underweight by ethnic group, 2022/23

Underweight

Ethnic group	Significance to England	Num Underweight	Num measured	% Underweight	England
Asian or Asian British	Higher	121	1716	7.1	4.3
Any Other Ethnic Group	Similar	<7	107		1.3
Not known	Not known	<7	225		
Mixed	Similar	<7	330		1.2
Black or Black British	Similar	<7	356		1.2
White	Similar	8	1135	0.7	0.6
Any other ethnic group	Similar	<7	107		1.3

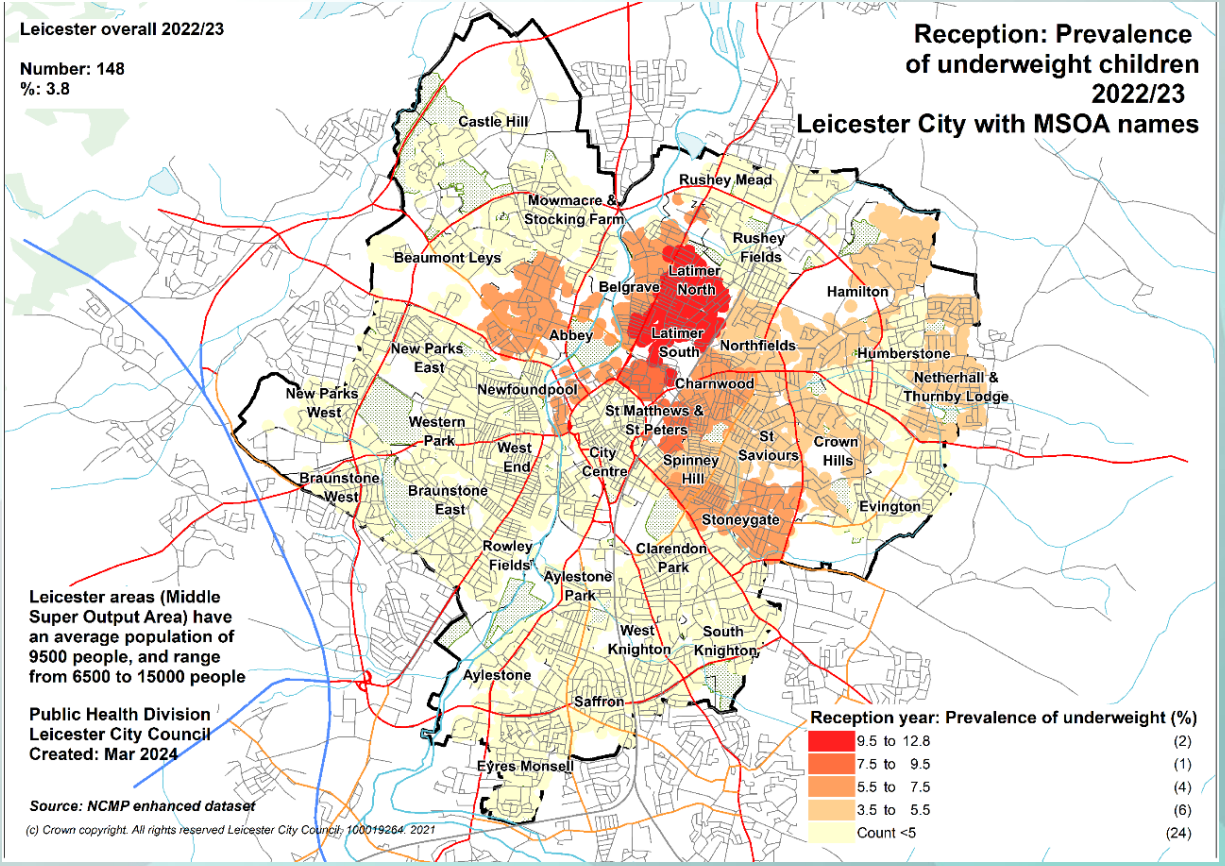
*Note - do not publish any numbers where count < 7

Reception underweight 2022/23 – MSOA

While MSOA counts for a single year are relatively small, it should be noted that the prevalence of underweight children for 2022/23, the distribution across the city's MSOAs is similar to the three-year-trend observed.

Since the previous measure in 2021/22, Belgrave Northeast observed a 9.6% increase in the prevalence of underweight children in Reception year – the largest increase of all MSOAs. Aylestone North and Saffron Fields observed the largest decrease in prevalence by 3.6%.

While these findings were not found to be 'statistically' significant, this is likely due to the low counts of children in this BMI category.

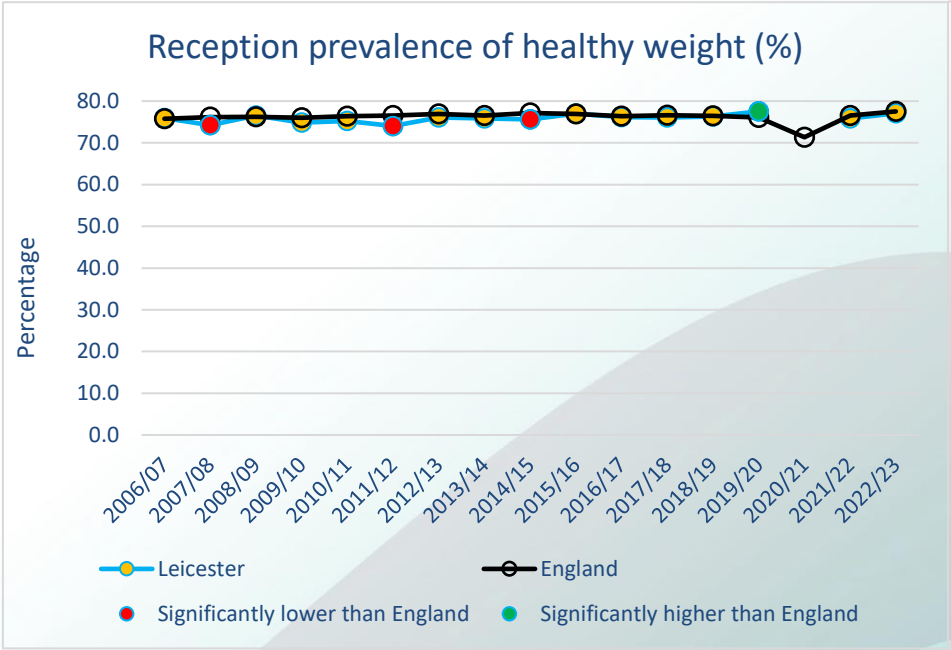


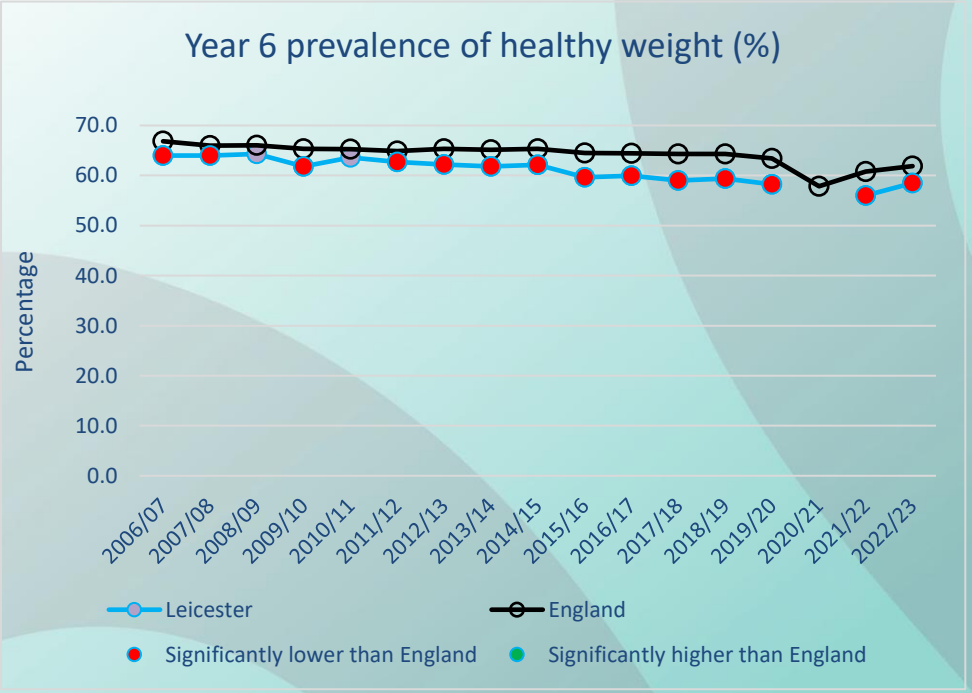
Trend in the prevalence of **healthy weight**

National Child Measurement Programme 2006/2007 to 2022/2023

In Reception year, the prevalence of healthy weight children in Leicester has been both higher and lower than the national average over the course of a decade. In 2022/23, the proportion of Reception year children who are of a healthy weight is not significantly different to England overall.

In Year 6, the prevalence of healthy weight children in Leicester has generally decreased over time and remains significantly lower than the national average in 2022/23.





Missing data point denotes missing data for 2020/2021

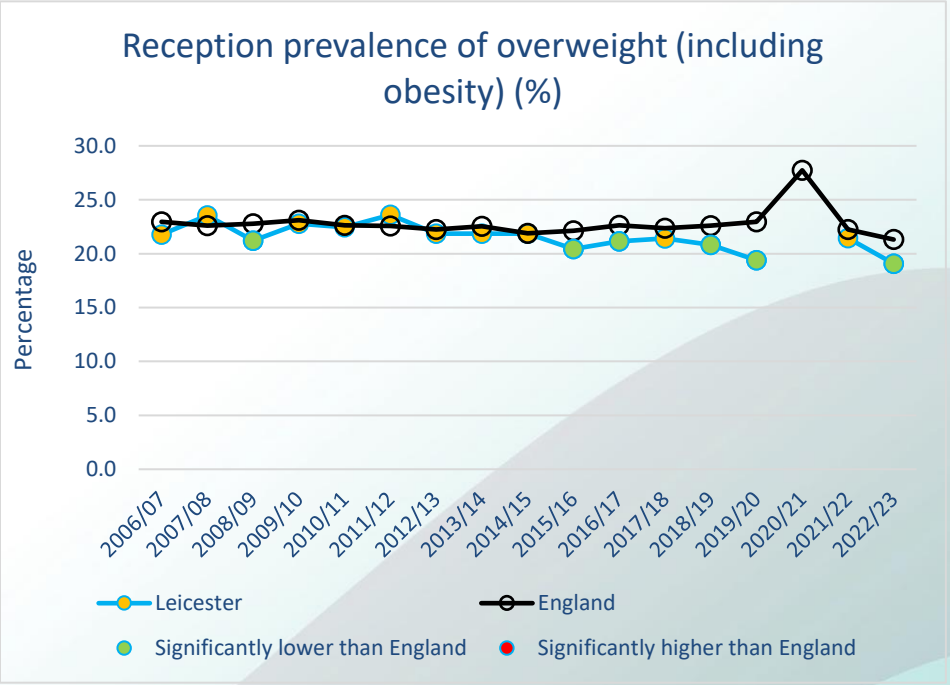
Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/2007 to 2008/2009) as low participation levels led to underestimation of obesity prevalence

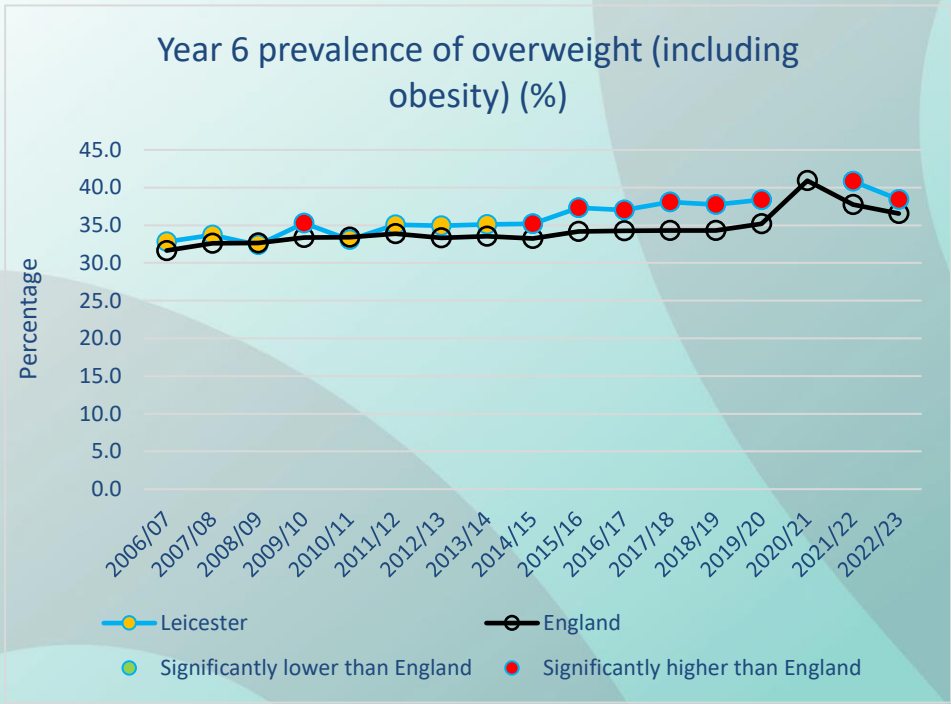
Trend in the prevalence of **overweight (including obesity)**

National Child Measurement Programme 2006/07 to 2022/2023

In Reception year, the prevalence of overweight (including obese) children in Leicester has been both higher and lower than the national average over the course of a decade. In 2022/23, the proportion of Reception year children with overweight (including obese) is significantly lower than the national average..

In Year 6, the prevalence of healthy weight children has had remained relatively unchanged, with no marked increases or decreases. In 2022/23, the proportion of Year-6 children with overweight (including obese) remains significantly higher than the national average.





Missing data point denotes missing data for 2020/2021

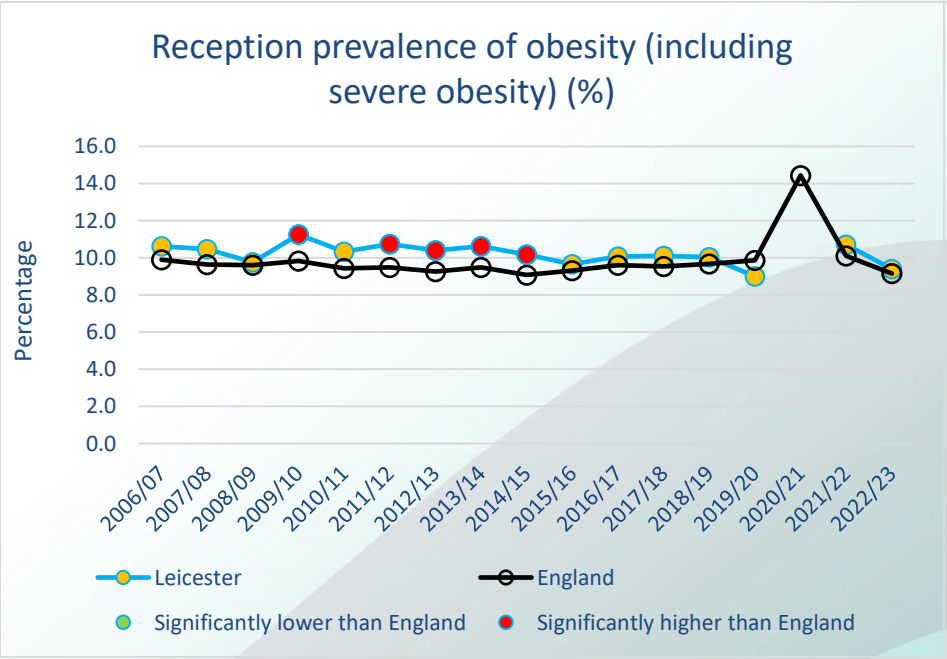
Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/2007 to 2008/2009) as low participation levels led to underestimation of obesity prevalence

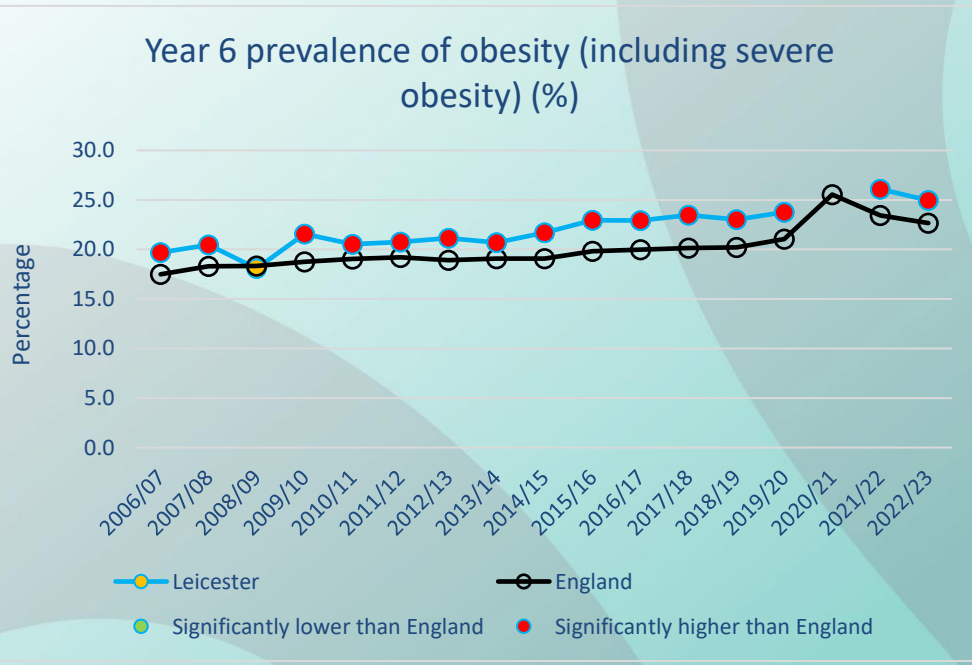
Trend: prevalence of **obesity (including severe obesity)**

National Child Measurement Programme 2006/2007 to 2022/2023

In Reception, the prevalence of obesity (including severely obese) children has remained relatively unchanged over the past decade. In 2022/23, the proportion of children with obesity (including severe obesity) is not significantly different to the national average.

In Year 6, the prevalence of obese (including severely obese) children has steadily increased over the past decade. In 2022/23, the proportion of children with obesity remains significantly higher than the national average.





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Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/2007 to 2008/2009) as low participation levels led to underestimation of obesity prevalence

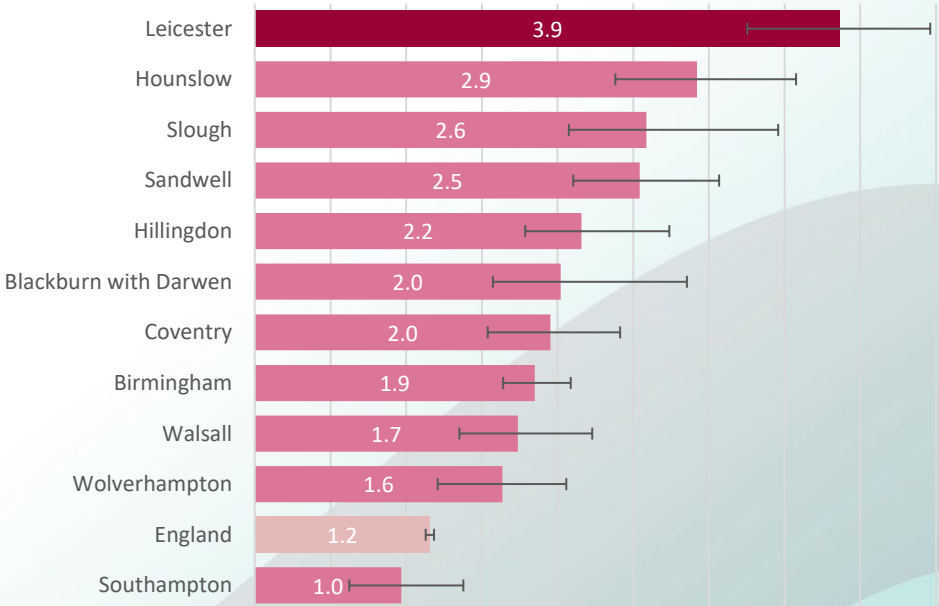
DfE comparators: prevalence of **underweight** in Leicester

National Child Measurement Programme 2022/2023

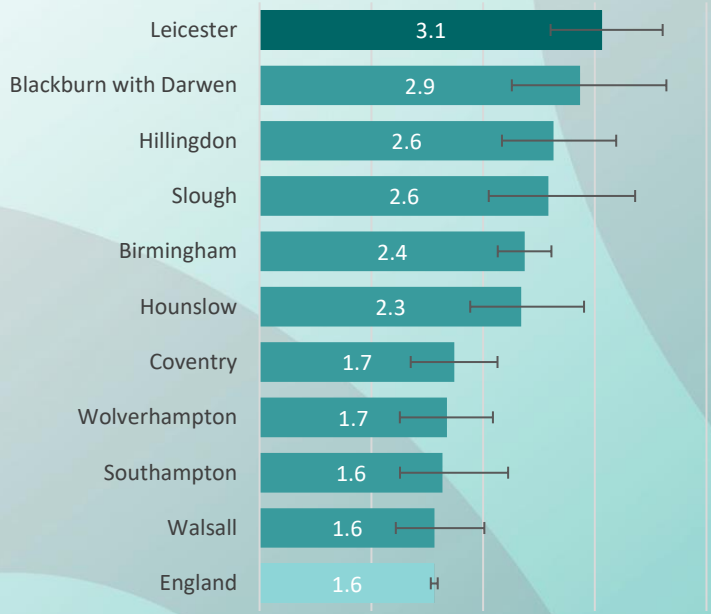
In Reception year, Leicester has the highest prevalence of underweight children when compared to its 10 DfE comparators.

In Year 6, Leicester has the highest prevalence of underweight children when compared to its 10 DfE comparators.

Reception: Prevalence of underweight in Leicester and peer areas, 2022/23



Year 6 prevalence of underweight in Leicester and peer areas, 2022/23

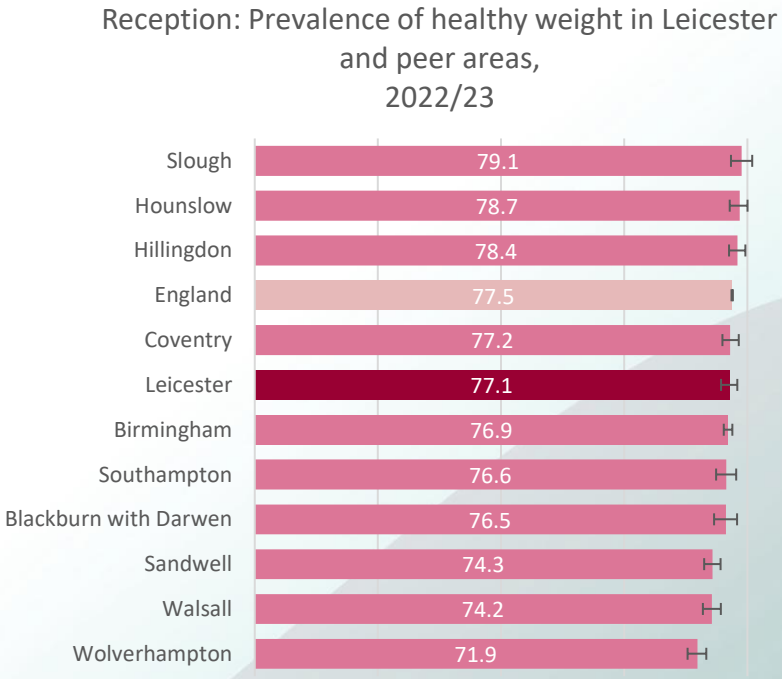


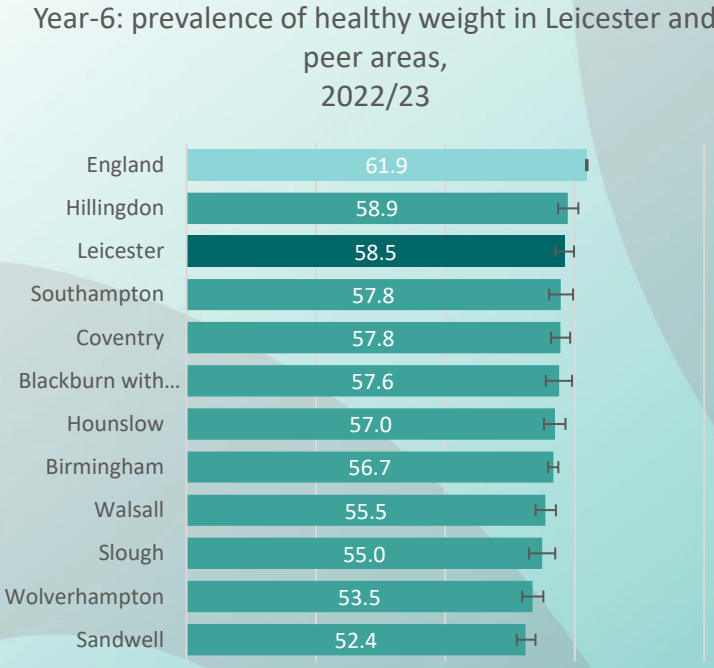
DfE comparators: prevalence of **healthy weight** in Leicester

National Child Measurement Programme 2022/2023

In Reception year, Leicester has the 5th highest prevalence of healthy weight compared to its 10 DfE comparators.

In Year 6, Leicester has the 2nd highest prevalence of healthy weight compared to its 10 DfE comparators; this is an increase from 5th highest in 2021/22. All comparators, including Leicester, have significantly lower prevalence compared to England overall.





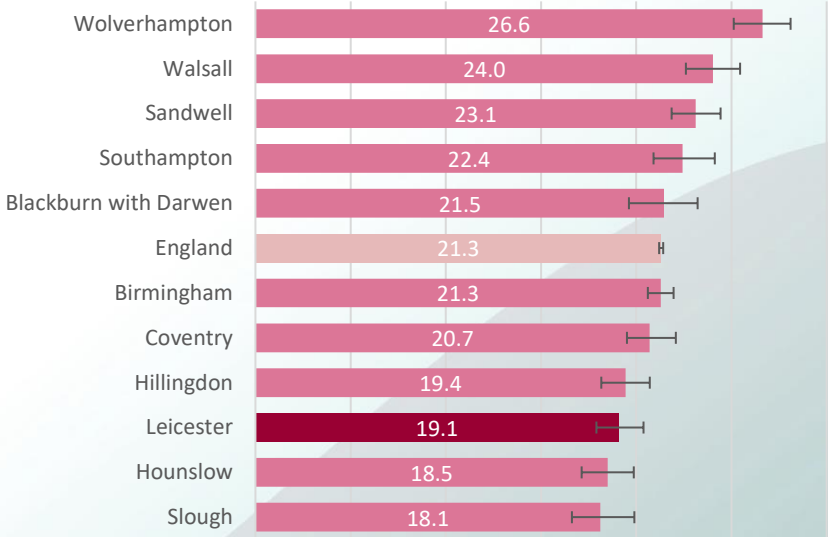
DfE comparators: prevalence of **overweight (including obesity)** in Leicester

National Child Measurement Programme 2022/23

In Reception year, Leicester has the 3rd lowest prevalence of overweight (including obese) children compared to its 10 DfE comparators.

In Year 6, Leicester has the 2nd lowest prevalence of overweight (including obese) children compared to its 10 DfE comparators.

Reception: Prevalence of overweight (incl. obesity) in Leicester and peer areas, 2022/23



Year-6: prevalence of overweight (incl. obesity) in Leicester and peer areas, 2022/23

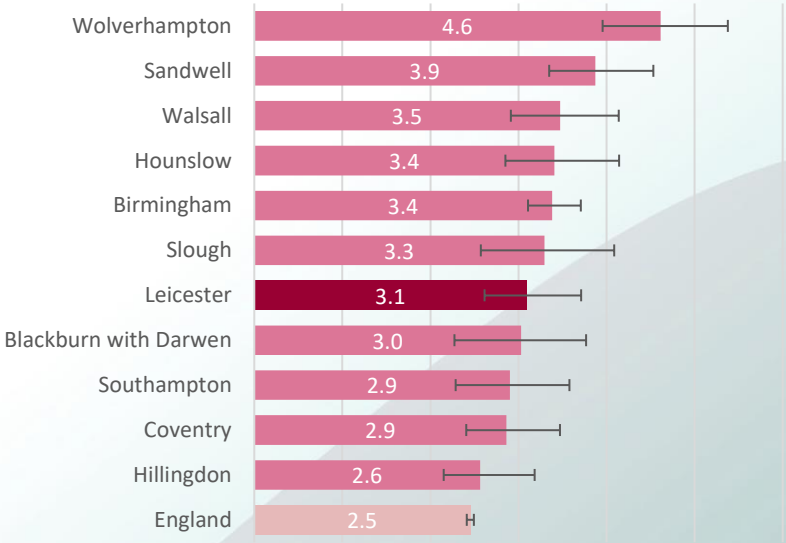
DfE comparators: prevalence of **obesity (including severe obesity)** in Leicester

National Child Measurement Programme 2022/23

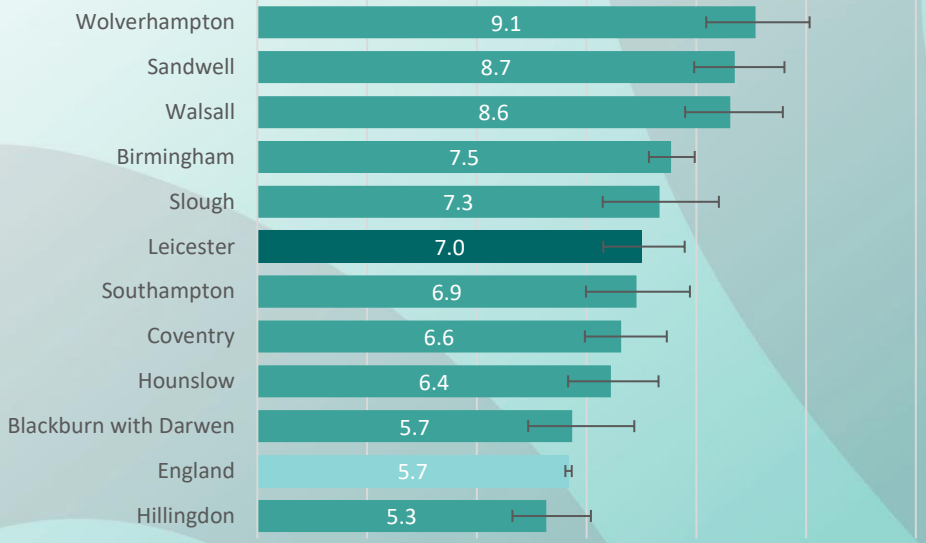
In Reception year, Leicester has the 5th lowest prevalence of obesity (including severe) compared to its 10 DfE comparators.

In Year 6, Leicester has the 6th lowest prevalence of obesity (including severe) compared to its 10 DfE comparators.

Reception: Prevalence of severe obesity in Leicester and peer areas, 2022/23



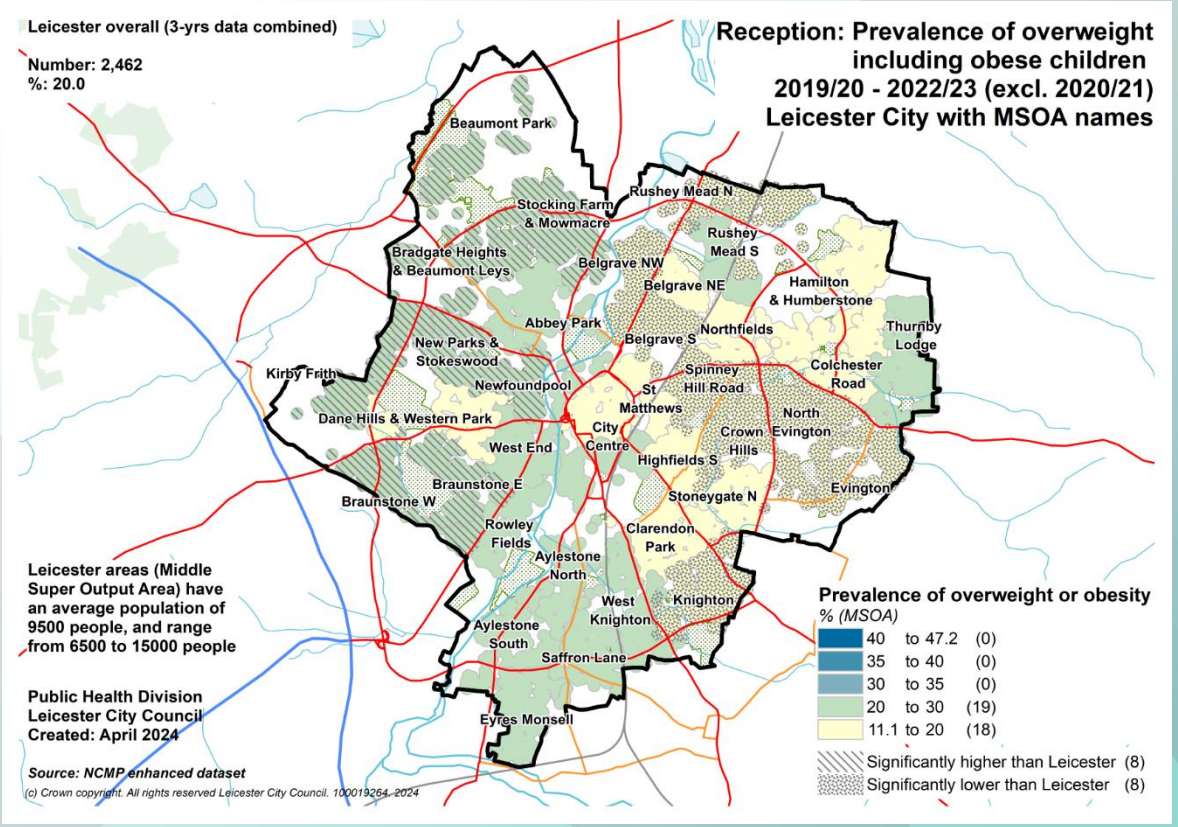
Year-6: prevalence of severe obesity in Leicester and peer areas, 2022/23



Overweight and obese prevalence – Reception

In Reception year, children in the west of the city were more likely to be living with overweight or obesity. Braunstone East (29%), Mowmacre & Stocking Farm (29%), and New Parks & Stokeswood (28%) had the highest combined overweight and obesity prevalence and were significantly higher than Leicester overall.

Children in 8 of Leicester's 37 MSOAs were significantly less likely to be living with overweight or obesity compared to Leicester overall. This included Knighton (10%), Belgrave North West (11%), Evington (12%), Belgrave South (12%), Evington (13%), Crown Hills (14%), Spinney Hill Road (14%), North Evington & Rowlatts Hill (15%).

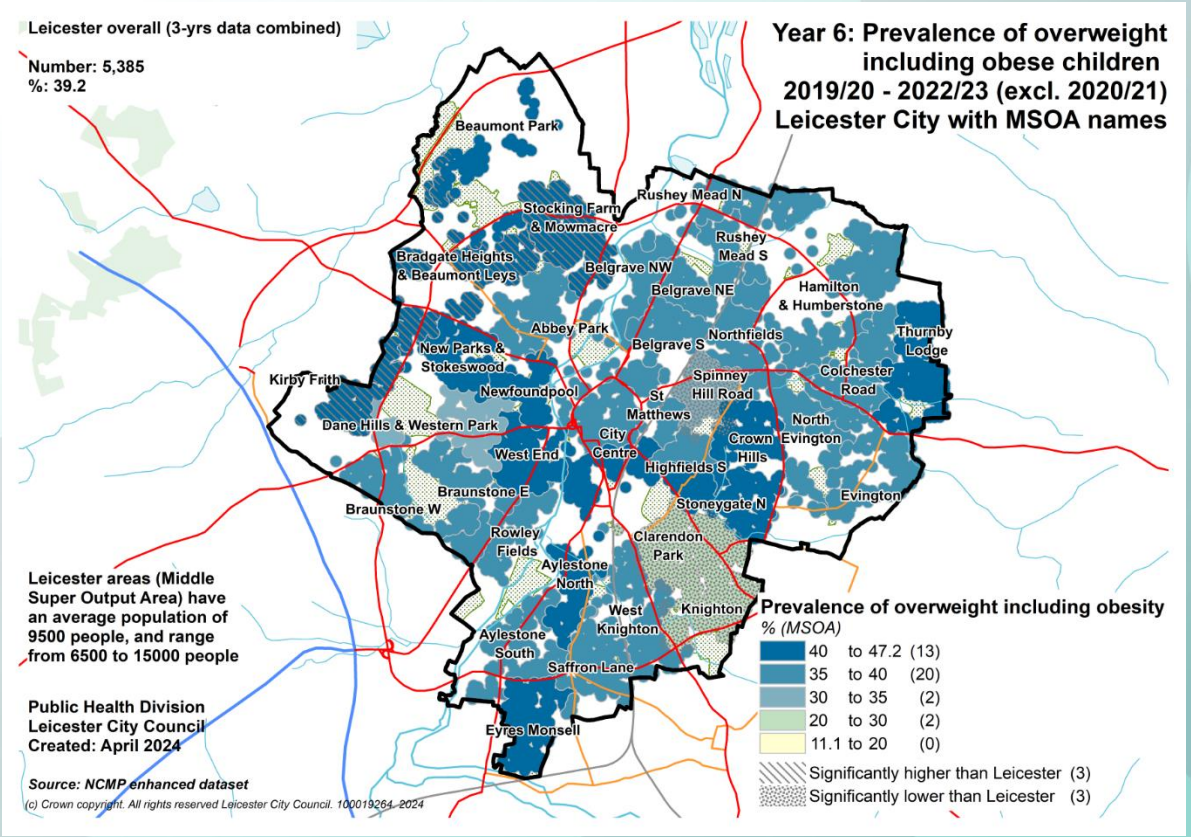


Three-year averages have been used to avoid suppression of data when dealing with small areas.

Overweight and obesity prevalence – Year 6

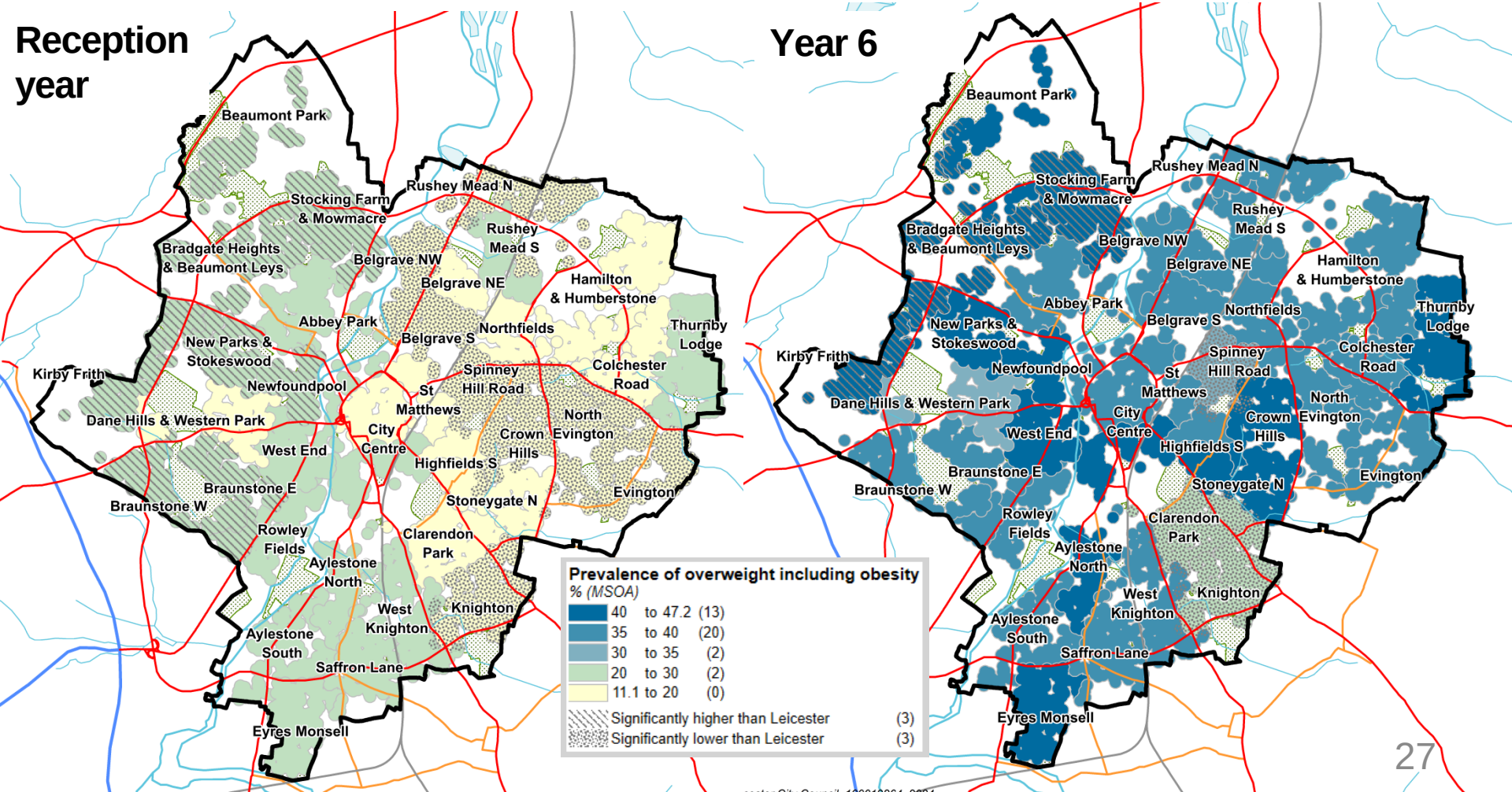
In Year 6, children in the North West of the city were more likely to be living with overweight or obesity. Mowmacre & Stocking Farm (47.1%), Kirby Firth (47.2%), Bradgate Heights & Beaumont Leys (46%) had the highest combined overweight and obesity prevalence and were significantly higher than Leicester overall.

Children in 3 of Leicester's 37 MSOAS were significantly less likely to be living with overweight or obesity compared to Leicester overall. This included Knighton (24.5%), Clarendon Park (28.3%) and Spinney Hill (32%).



Three-year averages have been used to avoid suppression of data when dealing with small areas.

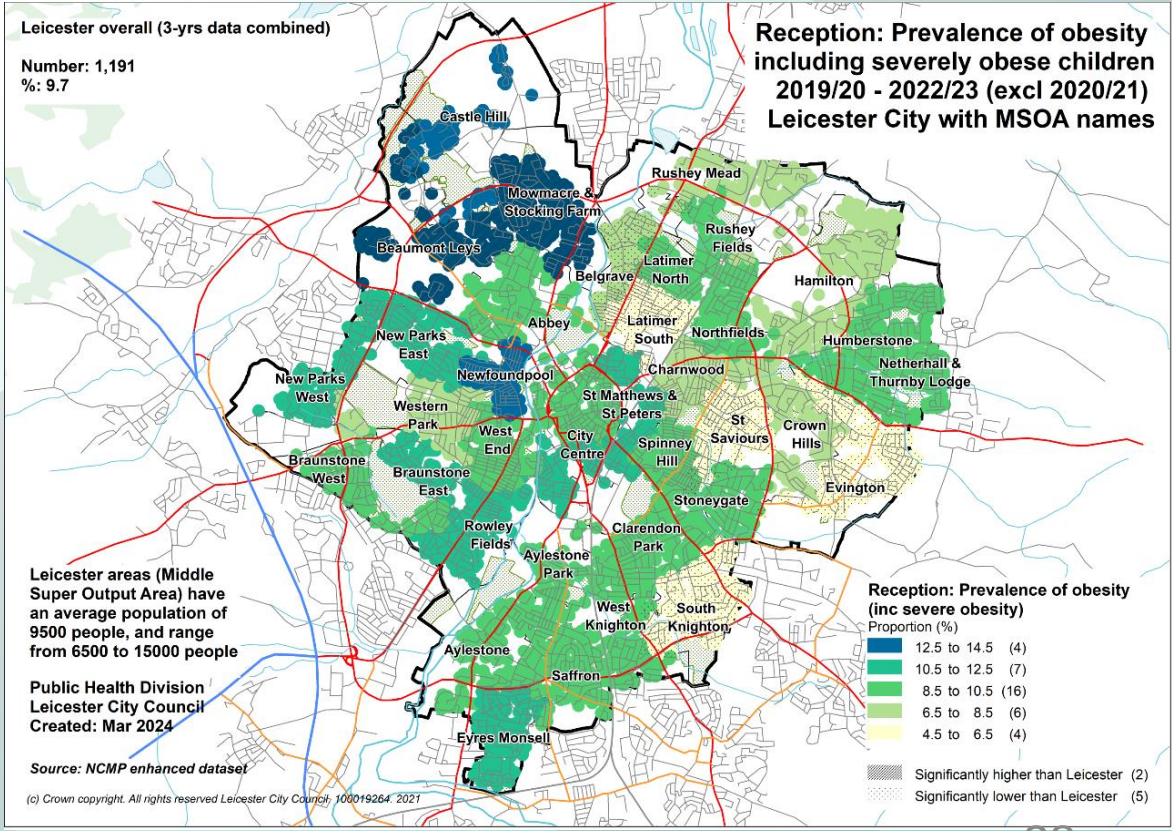
Overweight and obese prevalence 2019/20 to 2022/23 (excluding 2020/21)



Obesity and severe obesity – Reception

In Reception year, children in the North West of the city were more likely to be living with obesity or severe obesity. Beaumont Park (14.1%), Mowmacre & Stocking Farm (14.3%) and Bradgate Heights & Beaumont Leys (13.9%) had the highest combined obese and severely obese prevalence. Mowmacre & Stocking Farm and Bradgate Height & Beaumonth were significantly higher than Leicester overall.

Children in 5 of Leicester's 37 MSOAs were significantly less likely to be living with overweight or obesity compared to Leicester overall. This included Belgrave South (5%), Evington (5%), Crown Hills (6%) and Knighton (5%).

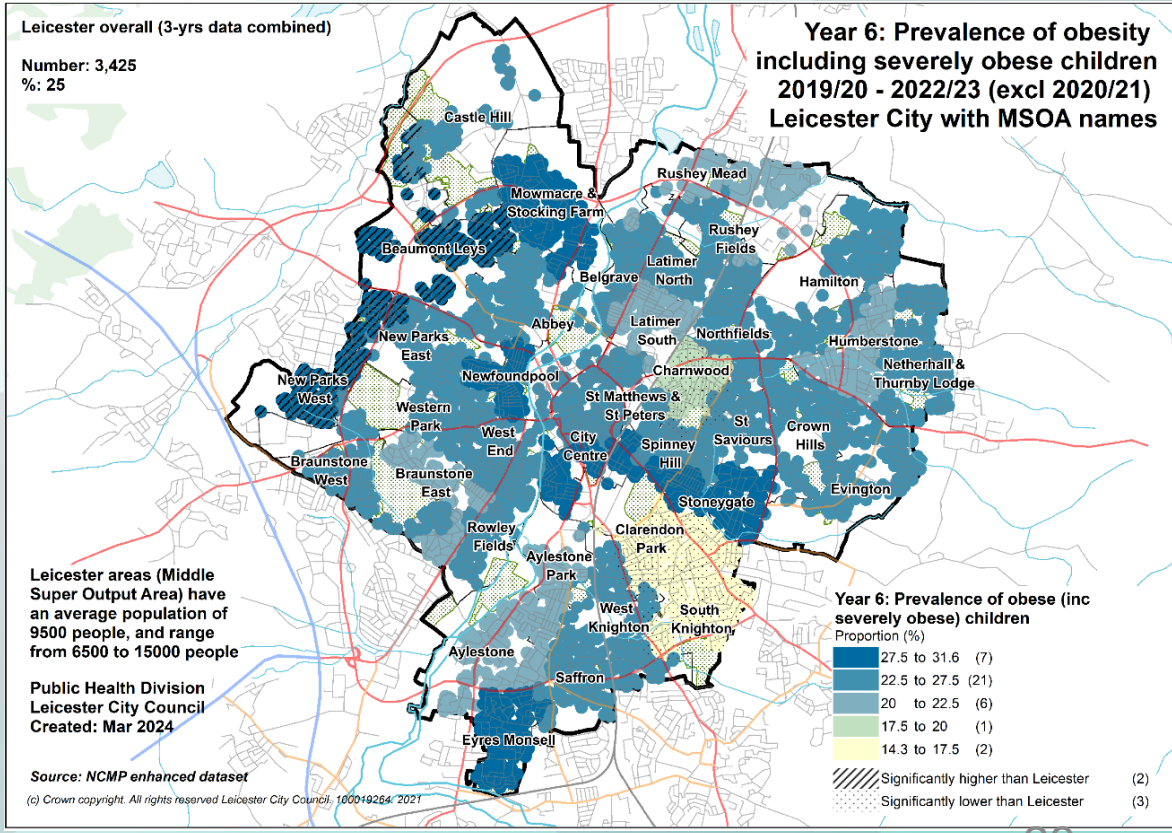


Three-year averages have been used to avoid suppression of data when dealing with small areas.

Obesity and severe obesity – Year 6

In Year 6, children in Kirby Frith (31.5%), and Bradgate Heights & Beaumont Leys (30.8%) had the highest combined obese and severe obese prevalence and were significantly higher than Leicester overall.

Children in 3 of Leicester's 37 MSOAS were significantly less likely to have obesity or severely obesity compared to Leicester overall. Spinney Hill (19%), Clarendon Park (16%), Knighton (14%) had the lowest combined obese and severe obese prevalence.



Three-year averages have been used to avoid suppression of data when dealing with small areas.

Next Steps: Communication to Parents and Carers

In 2022/23, Parents and Carer's received letter feedback on their child's results approximately 6 weeks after the measurements had been taken. Communications circulated in Leicester City contain pamphlets and links to online resources tailored to the child's results.

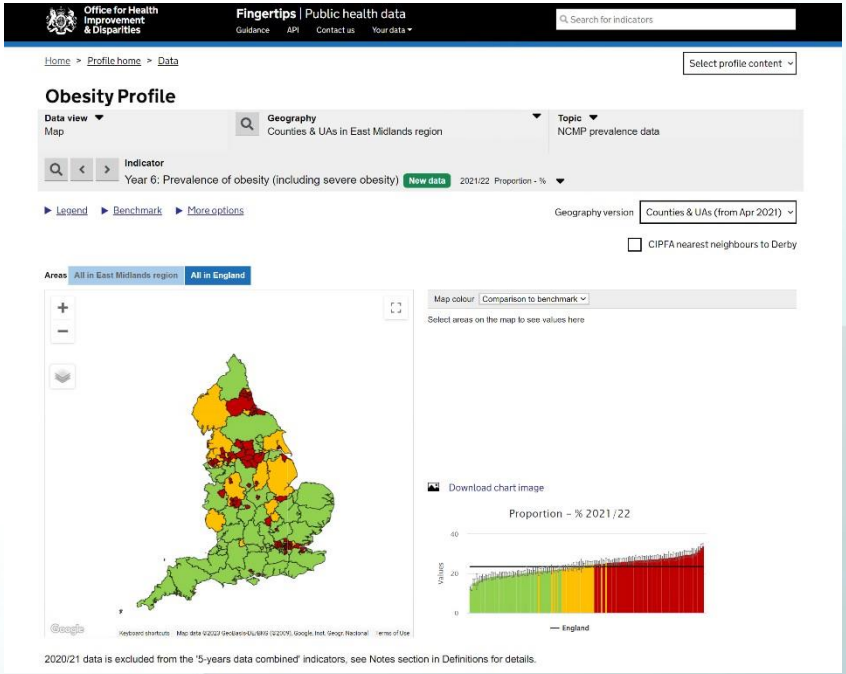
For the 2022/23 measure, these resources included:

- Change For Life Tips Leaflet (national document)
- Activity Sheet – about national and local resources (reviewed by LCC and updated each year)
- FLiC flyer for overweight & very overweight children in Year 6
  Children with overweight: Information leaflet to contact and book a place
  Children with obesity: Information Leaflet and prepopulated sheet to accept a FliC club place plus a prepaid envelope

Family Lifestyle Club (FLiC) Services
In-person sessions are delivered in the East and West of the city - usually the Peepul centre in the East and then rotated between New Park's or Aylestone leisure centres in the west.

For families that cannot access these, virtual group sessions with families are delivered via MS Teams after school hours in the week with a 1-hour activity session weekly on Saturday at Soar Valley College and Aylestone. Braunstone is being piloted currently.

For more information: Obesity Profile on Fingertips



Screenshot of webpage

The Obesity Profile on Fingertips displays data from the National Child Measurement Programme.

Indicators on the prevalence of underweight, healthy weight overweight, obesity, and severe obesity are shown for England, regions, upper and lower tier local authorities, Integrated Care Boards, electoral wards, and middle super output areas.

Inequalities data is also displayed showing differences in prevalence by sex, ethnic group, and deprivation.

http://fingertips.phe.org.uk/profile/national-child-measurement-programme

Impact of the COVID-19 pandemic on NCMP data collection

The 2019 to 2020 NCMP data collection stopped in March 2020 when schools were closed due to the COVID-19 pandemic. The number of children measured was around 75% of previous years. Despite the lower than usual number of measurements, analysis by NHS Digital confirms that figures at national and regional level are directly comparable to previous and future years. The data at local authority level and below is not as robust. As a result, a small number of areas do not have published data for 2019 to 2020 and data for some areas has a reliability flag indicating that figures need to be interpreted with caution. Further information is available to download from the Obesity Profile on Fingertips.

The 2020 to 2021 NCMP had a delayed start due to the COVID-19 pandemic. Local authorities were still able to collect enough data to enable the production of national and regional estimates of prevalence by body mass index (BMI) category. Around 300,000 children (25% of previous full measurement years) were measured but the sample was not fully representative of the child population. Therefore weighting was used in the analysis to produce valid estimates of prevalence that could be compared to data from previous and future years. Further information on the 2020 to 2021 data collection and weighting methods is available in the NHS Digital report. Due to the smaller number of children measured in 2020 to 2021, we cannot be sure the data is robust when broken down further to local authority level.

Therefore local authority data for 2020 to 2021 is only published in instances where 75% or more of the expected number of children were measured. No data from 2020 to 2021 is included in the three and five year grouped data analysis.

NCMP methodology note

Describing an area as similar, better or worse

For the data in this slide pack a local authority value is described as similar, higher or lower based on statistically significant differences from the England value. Statistical comparisons are undertaken by comparing the confidence intervals of a local authority value to see if they overlap with the England value, with non-overlapping confidence intervals being considered as statistically significantly different. Where the England value lies within the confidence interval of a local authority it is described as similar. The yellow, green and red dots are used to indicate where Leicester is not significantly different to, significantly better and significantly worse, than the England average, respectively.

Data quality issues for three and five year grouped data

In the three and five year grouped NCMP data, for ward level and local authority inequalities data, we would expect around 33% and 20% respectively of data from each contributing year. Data points are flagged if less than 20% (for 3-year data) or less than 10% (for 5-year data) of data is from 2019 to 2020. The data is still considered to be reliable even with a small amount of data from 2019 to 2020. Further information on the contribution of 2019 to 2020 data to three and five year combined data is available from the Obesity Profile. As only a small number of areas collected robust data in 2020 to 2021, no data from 2020 to 2021 is included in the three and five year grouped data analysis.