

National Child Measurement Programme



**ANNUAL
REPORT**
2016/17
Leicester City

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Division of Public Health. January 2018.



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1. Introduction

The National Childhood Measurement Programme (NCMP) was established in 2005/06 and now holds ten years of reliable data. The programme measures the weight and height of children in Reception (aged 4–5 years) and Year 6 (aged 10–11 years) in line with the Government's strategy to tackle obesity and to:

- *inform local planning and delivery of services for children*
- *gather population-level data to allow analysis of trends in growth patterns and obesity*
- *increase population and professional understanding of weight issues in children*
- *be a vehicle for engaging with children and families about healthy lifestyles and weight issues.*

National results were published by NHS digital in November 2016. NHS Digital has a report on the programme nationally which can be downloaded in a PDF format. There are also data tables accompanying the report which provide national data and some local authority and regional level data.

<https://digital.nhs.uk/catalogue/PUB30113>

The programme engages with parents about the importance of healthy weight in children, since their children's results are shared with them.

This report presents the results for Leicester City and compares against the England averages to provide a picture on how Leicester compares.

Definitions of healthy weight, overweight and obese:

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 count the number of children defined as underweight, healthy weight, overweight or obese as a proportion of the number measured:

Underweight: BMI less than or equal to the 2nd percentile

Healthy weight: BMI greater than the 2nd percentile but lower than the 85th percentile

Overweight: BMI greater than or equal to 85th percentile, but less than the 95th percentile (overweight but not obese)

Obese: BMI greater than or equal to the 95th percentile

1.1 Where I can find out more

If you want to find out more about the National Childhood Measurement Programme and associated work streams then there are a number of different websites that contain information and resources which may be useful to you:

Department of Health: Childhood obesity: a plan for action

The government's plan for action to significantly reduce childhood obesity by supporting healthier choices.

<https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action>

Department of Health: Resources for Schools and Local Authorities

This site provides guidance and advice for Schools and Local Governments running the National Childhood Measurement Programme in their area.

<https://www.gov.uk/government/publications/national-child-measurement-programme-operational-guidance>

Change4Life

The Change4Life programme is a Department of Health initiative to encourage people to lead healthier lifestyles and to partake in more physical activity. The National Childhood Measurement Programme is one of the work streams associated with this public health initiative.

<https://campaignresources.phe.gov.uk/resources/campaigns/55>

World Health Organisation: Commission on Ending Childhood Obesity

The Commission has been tasked with producing a report specifying which approaches and combinations of interventions are likely to be most effective in tackling childhood and adolescent obesity in different contexts around the world. The report was published in January 2016 and can be found here:

<http://www.who.int/end-childhood-obesity/final-report/en/>

2. Key Findings

Participation:

A total of 8458 Leicester children were measured in the NCMP, the majority in Leicester local authority schools. 4390 were in Reception Year and 4068 in Year 6. In Leicester local authority schools the participation rate has decreased in Reception year since 2015/16 from 93% to 90% in 2016/17. For year 6, the participation rate has remained the same since 2015/16 at 95%.

Prevalence:

In Reception Year:

- Just over a fifth (21.6%) of children measured in Leicester were either overweight or obese.
- Levels of overweight (excluding obese) in Leicester (11.2%) are significantly lower to the national rate (13%), and there are no significant differences in levels of obesity in Leicester (10.4%) in comparison to England (9.6%). Leicester (2.8%) has a statistically similar severe obesity rate to England (2.3%).
- Leicester continues to show significantly higher prevalence of underweight children (2.7%) compared to England (1.0%). Levels are over double the national rate in boys (3.2%).

In Year 6:

- Thirty seven percent of children measured were either overweight or obese. Levels of obesity (23.5%) are higher than those of overweight (13.7%). Leicester (5.4%) has a significantly higher severe obesity rate compared to England (4.1%).
- Obesity levels are higher in boys (25%) compared with girls (21.8%).
- Levels of overweight excluding obese (13.7%) is statistically similar to England (14.3%) but levels of obesity (23.5%) are significantly higher compared to England (20%).
- Underweight prevalence is significantly higher in Leicester (3%) than England (1.3%).

Overall:

- Obesity in Year 6 (23.5%) is more than double that of Reception year children (10.4%).
- There has been a continued increase in obesity prevalence for Year 6 children and a decrease for Reception children since 2011/12, however, there has been an increase in 2016/17 to 10.4%.
- Among Reception year children, the prevalence of overweight pupils (11.2%) was greater than the prevalence of obese pupils (10.4%). In Year 6, the opposite was true, with prevalence of overweight children (13.7%) being lower than that of obese children (23.5%).
- The prevalence of healthy weight children was higher in reception year (75.7%) than year 6 (59.8%). In year 6, boys (58.9%) and girls (60.7%) have a significantly lower prevalence of healthy weight in comparison to the national prevalence for boys (62.8%) and girls (66.1%).

- The overall prevalence of underweight children is slightly higher in Year 6 (3%) than in Reception year (2.7%). In Reception year, a higher percentage of boys were underweight than girls (3.2 % and 2.1% respectively); whereas in Year 6, the percentage of girls (3.7%) is higher in comparison to boys (2.4%).

Ethnicity:

Reception Year:

- Underweight levels are significantly higher amongst Asian children in comparison to the overall national average and the national average for Asian children.
- Overweight levels are significantly higher amongst black children in comparison to the overall national average and the national average for black children.
- Obesity levels are significantly higher amongst white children in comparison to the overall national average and the national average for white children. Black children in Leicester, also have a significantly higher prevalence of obesity in comparison to the overall national average.

Year 6:

- Underweight levels are significantly higher amongst Asian children in comparison to the overall national average and the national average for Asian children.
- Obesity levels are significantly higher amongst white children in comparison to the overall national average and the national average for white children. Black and Asian children in Leicester, also have a significantly higher prevalence of obesity in comparison to the overall national average.

Geography:

Note: Geographical analysis has been carried out using Mid-layer Super Output Areas (MSOAs). There are 37 MSOAs across the city with populations ranging from 6,000 to 14,000 and an average of about 9,250. MSOA level annual data is too small to report confidently therefore three year averages have been calculated. This data reports on Leicester resident children at schools in either the city or county.

NCMP data varies across the city and reporting at a MSOA level provides us a more detailed picture of weight levels of reception and year 6 children across our city neighbourhoods. Please see page 23 for maps.

Reception Year and Year 6:

- Levels of underweight are significantly higher amongst MSOAs within the East of the city for both year groups. City Centre North and City Centre South have significantly lower levels of underweight children in reception year, and year 6 (including West End) in comparison to the national 3 year average
- The west of the city show higher levels of overweight children in reception year, with Braunstone West being significantly higher than England. For year 6, higher levels of

overweight are amongst various MSOAs throughout the city, with Beaumont leys being statistically significantly higher than England.

- For reception year, there are 3 areas of the city and for year 6 there are 11 areas reporting a statistically higher prevalence of obese children in comparison to England. In Stoneygate, the prevalence of obesity has risen from a rate significantly lower than England to significantly higher by year 6. Areas with significantly lower rates of obesity are mainly in the east of the city for reception aged children. For year 6, South Knighton is the only MSOA that reports a significantly lower rate of obesity in comparison to England.
- Excess weight for reception children is significantly higher than England in areas including New Parks, Braunstone, Netherhall & Thurnby Lodge, and Newfoundpool. Areas to the east of the city are more likely to have a rate significantly lower than England for excess weight at reception age. By year 6 excess weight has increased in all areas. Rates remain significantly higher than England in New Parks, Braunstone, Mowmacre & Stocking Farm and Newfoundpool. Crown Hills and Spinney Hill are areas where excess weight has risen from a rate significantly lower than England to significantly higher by year 6. South Knighton is the only area in Leicester with a significantly lower rate than England for Excess Weight amongst Year 6 children.

Deprivation:

Note: The following information uses the 2015 Index of Multiple Deprivation.

- Leicester is a deprived city and ranks as the 21st most deprived of all 326 Local Authority areas. 44% of Leicester's population live in the most deprived quintile (20% most deprived areas nationally). 1 in 4 of the city's 0 to 15 population live in the most deprived decile (10% most deprived areas nationally).
- For Reception year, levels of overweight are significantly lower in deciles 3, 4, 5, 6, 7 and 8 in comparison to the national average within the same decile. For obesity, decile 1 and 2 have significantly higher rate in comparison to decile 1 and 2 nationally
- For year 6, the trend for obesity prevalence shows an increase with greater deprivation. This reflects the national pattern reported in the NCMP National report 2016/17. There are significantly higher levels of obesity in deciles 1, 3 and 5 in Leicester compared to the national average within the same decile and decile 5 also has a significantly higher rate in comparison to overall national average

Historic Trend:

Historic analysis starts from 2007/08 where local data capture is more reliable. The number of Leicester children measured has increased by just over 1819 during this period, from 6639 (2007/08) to 8458 (2016/17).

Reception Year:

- Levels of underweight children in Leicester remain significantly higher in comparison to the national average since 2007/08. In reception year, a higher percentage of boys are underweight in comparison to girls, whereas in year 6, the percentage of girls is higher in comparison to boys (apart from 2014/15 where underweight levels were the same across both genders).
- Levels of overweight children in Leicester have remained significantly lower in comparison to the national average since 2012/13. In 2015/16 the prevalence for overweight children was 10.7%, this is the lowest it has been since 2007/08.
- The obesity prevalence for Leicester has been significantly higher than the national average since 2009/10. In 2015/16 the prevalence decreased to 9.3% which is similar to the national average and has been the lowest since 2007/08. The obesity prevalence remains similar to the national average for 2016/17.

Year 6:

- Levels of underweight children in Leicester remain significantly higher in comparison to the national average since 2007/08.
- Levels of overweight children in Leicester have remained similar to the national average since 2011/12. The prevalence of overweight children has always remained lower than the obesity prevalence since 2007/08.
- Levels of obesity have remained significantly higher than the national average since 2012/13. The obesity prevalence in 2016/17 has been the highest since 2007/08.

Schools:

Reception Year:

- 4 schools are significantly higher than the England rate for the underweight category
- 2 schools are significantly higher than the England and Leicester rate for the obese category
- 2 schools are significantly higher than the England and Leicester rate for the obese/overweight category

Year 6:

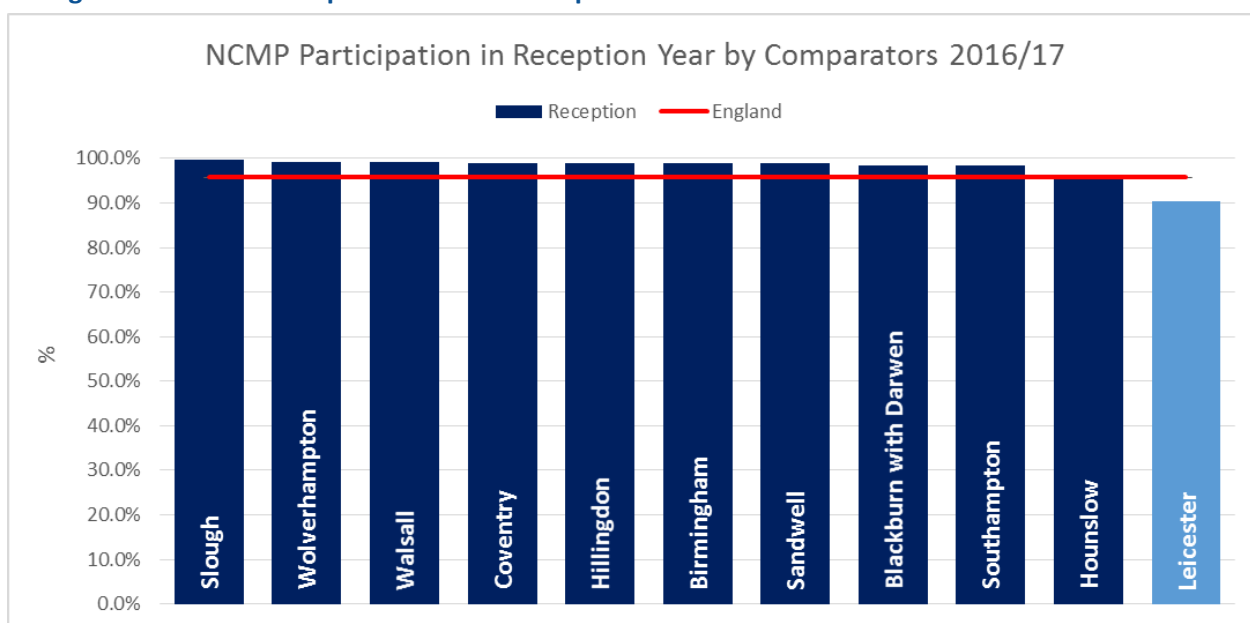
- 6 schools are significantly higher than the England rate for the underweight category
- 6 schools are significantly higher than the England for the obese category.
- 5 schools are significantly higher than England for the overweight/obese category.

3. Participation

In Leicester City schools, 2016/17:

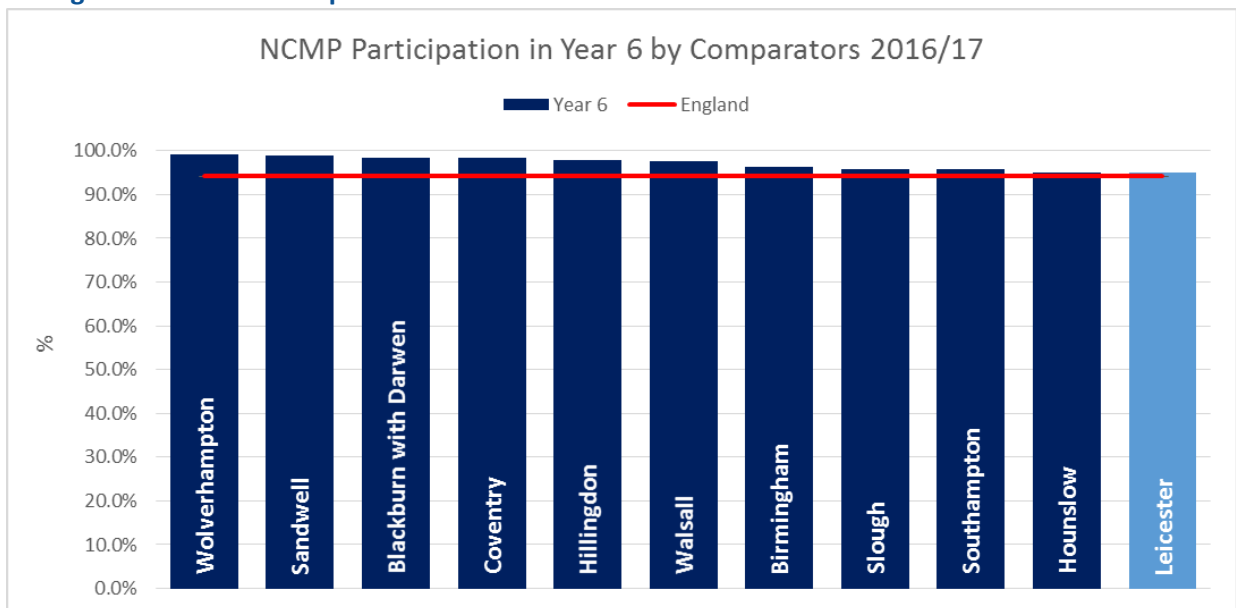
- 4390 reception year children were measured (90% of all children in reception year), compared to 93.0% in 2015/16 and 93.8% in 2014/15. Figure 1 shows that the participation rate in Leicester is below the national average (95.8%) and the lowest amongst its statistical comparator groups.
- 4068 children in year 6 were measured (95% of all children in year 6), this is similar to the rate in 2015/16 and 2014/15. Figure 2 shows that the participation rate in Leicester is above the national average (94.2%) and amongst the lowest with statistical comparators.

Figure 1: NCMP Participation Rates in Reception Year



Source: NHS Digital 2017

Figure 2: NCMP Participation Rates in Year 6

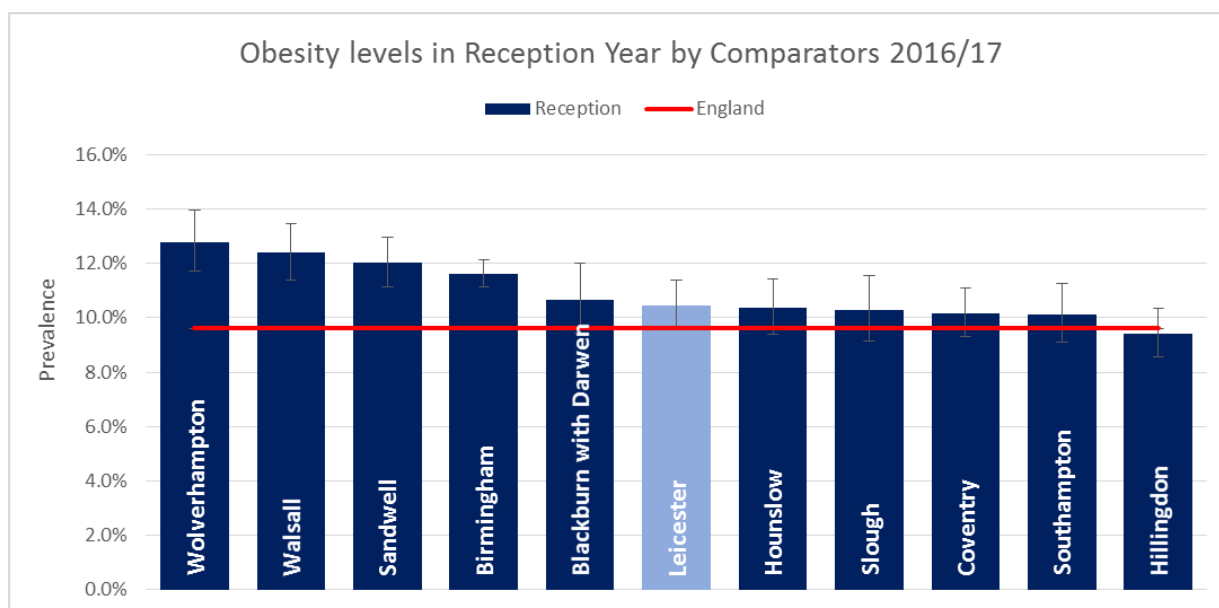


Source: NHS Digital 2017

4. Prevalence by Comparator Authorities

Figure 3 shows the prevalence of childhood obesity in Leicester compared to its statistical comparators. The chart below shows that all comparators apart from Birmingham, Sandwell, Walsall and Wolverhampton have similar obesity rates to the national average. Leicester has a significantly lower prevalence of obesity (10.4%) compared to Wolverhampton (12.8%).

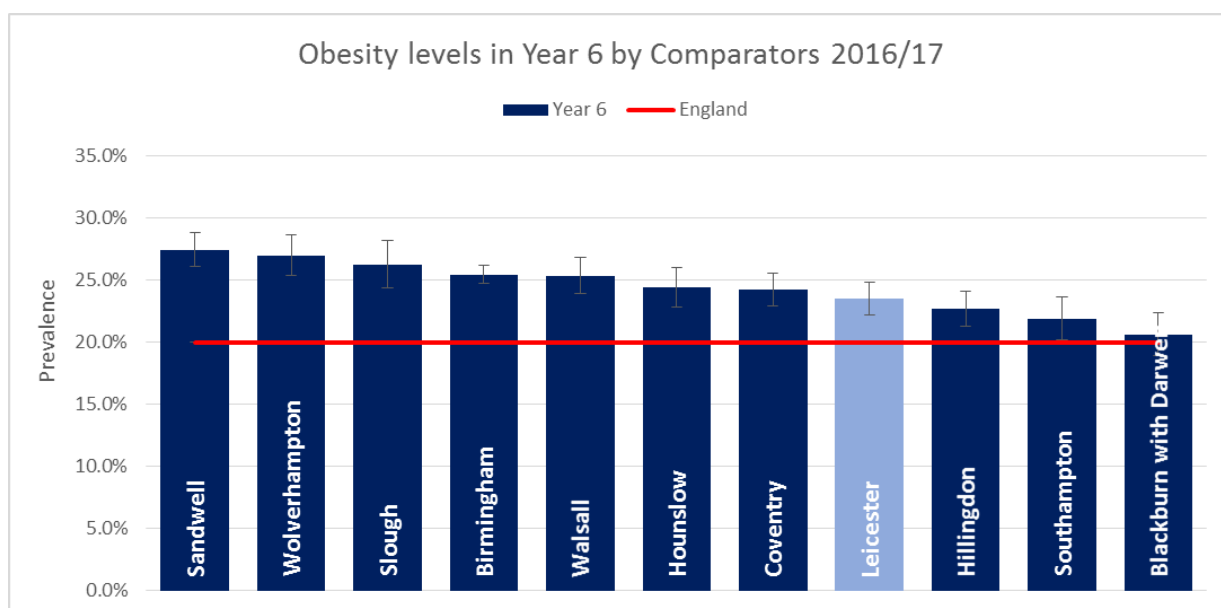
Figure 3: Prevalence of obesity by statistical comparators for Reception Year – 2016/17



Source: NHS Digital 2017

Figure 4 shows for year 6, all comparators apart from Blackburn with Darwen have a significantly higher rate of obesity in comparison to the national rate. Leicester has a significantly lower prevalence of obesity compared to Sandwell (27.4%) and Wolverhampton (26.9%).

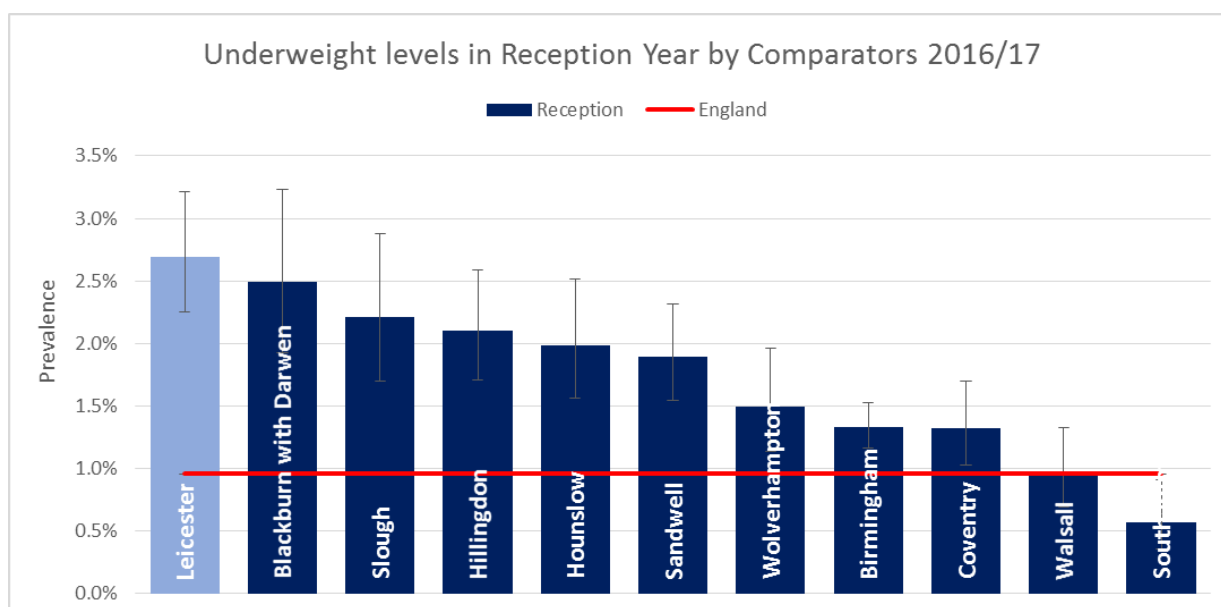
Figure 4: Prevalence of obesity by statistical comparators for Year 6 – 2016/17



Source: NHS Digital 2017

Figure 5 shows that Leicester has the highest prevalence of underweight children in comparison to its peers. All comparators apart from Walsall and Southampton have a significantly higher rate in comparison to the national rate. Leicester also has a significantly higher rate of underweight children in comparison to Southampton, Walsall, Coventry, Wolverhampton and Birmingham.

Figure 5: Prevalence of underweight by statistical comparators for Reception Year – 2016/17

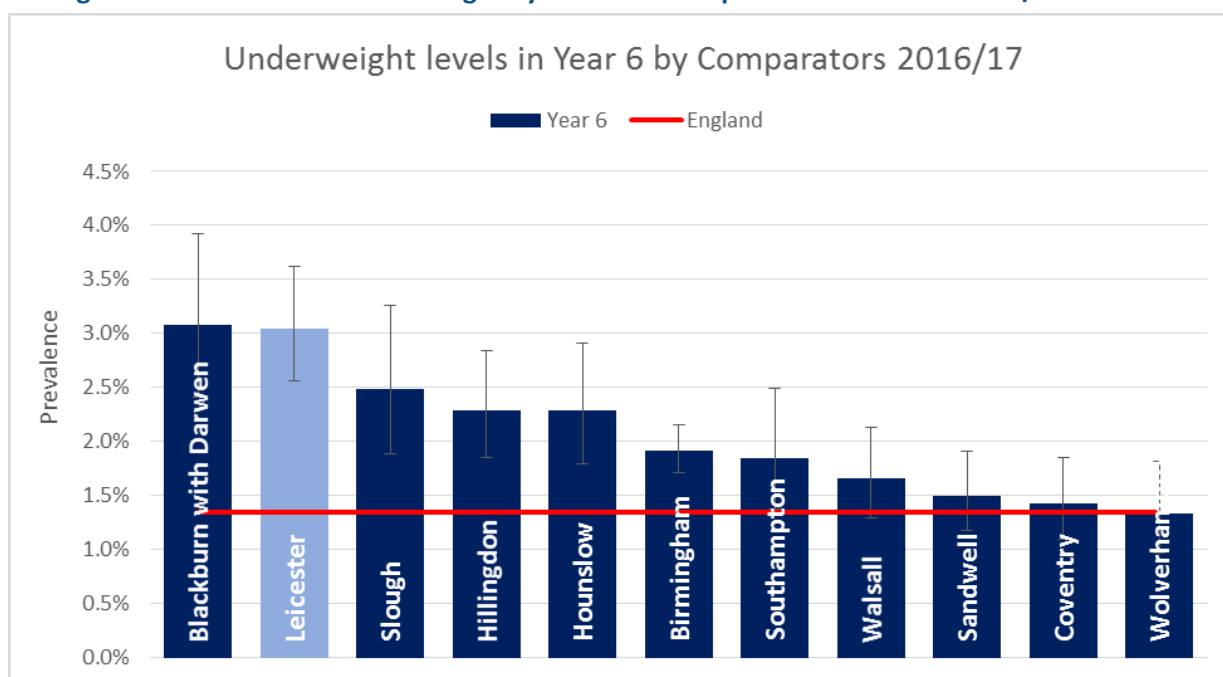


Source: NHS Digital 2017

Figure 6 shows that Leicester has the second highest prevalence of underweight children in comparison to its peers. Leicester has a rate significantly higher than the national rate.

Leicester also has a significantly higher rate of underweight children in comparison to Southampton, Walsall, Coventry, Wolverhampton, Sandwell and Birmingham.

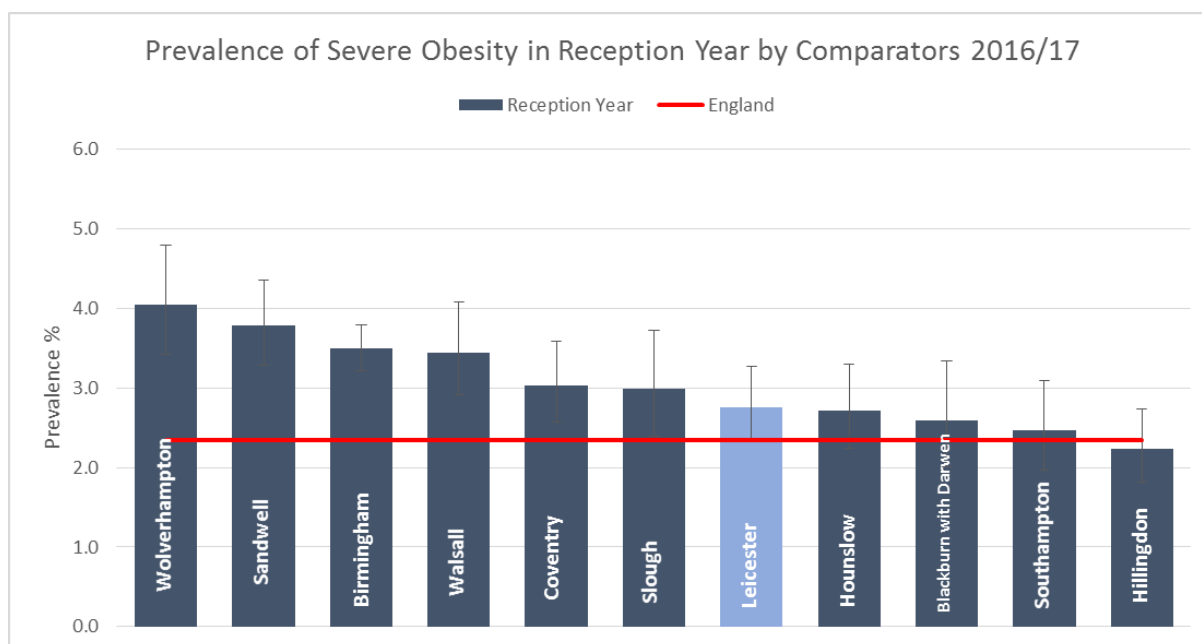
Figure 6: Prevalence of underweight by statistical comparators for Year 6 – 2016/17



Source: NHS Digital 2017

This year, NHS Digital published severe obesity data. Severely obese children are at risk of developing a number of serious acute and chronic health problems. These children therefore pose a significant concern in terms of their health and well-being, and may require the provision of specialist services. Although in relative terms the prevalence of severe obesity is low, in absolute terms this represents a large number of children nationally (14,787 Reception children and 22,646 Year 6 children). Figure 7 shows that Leicester (2.8%) has a statistically similar severe obesity rate to England (2.3%). Leicester has a significantly lower severe obesity rate in comparison to Wolverhampton and Sandwell.

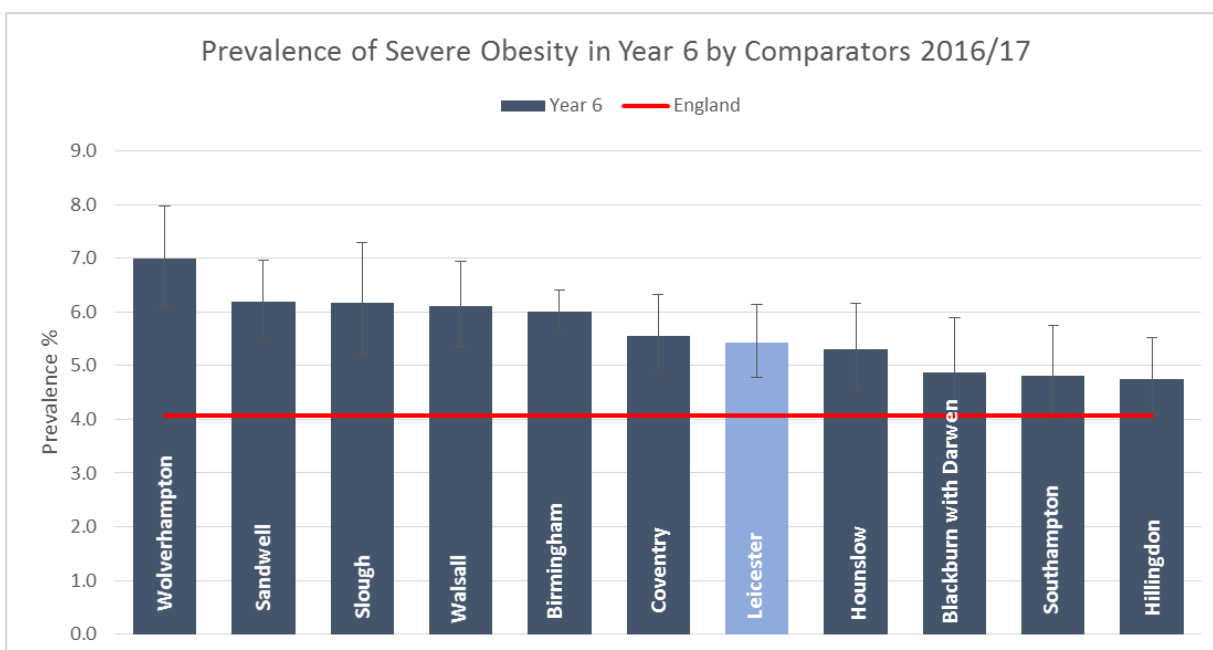
Figure 7: Prevalence of Severe Obesity by Statistical Comparators for Reception Year – 2016/17



Source: NHS Digital 2017

Figure 8 shows that Leicester (5.4%) has a significantly higher severe obesity rate compared to England (4.1%). Leicester has a statistically similar severe obesity rate in comparison to its peers.

Figure 8: Prevalence of Severe Obesity by Statistical Comparators for Year 6 – 2016/17



Source: NHS Digital 2017

5. Prevalence by School Year

Reception Year:

- Leicester has a significantly higher prevalence of underweight children (2.7%), over double the national rate (1.0%).
- Just over one in five children measured in Leicester were either overweight or obese (21.6%).
- Leicester has a significantly lower prevalence of overweight children (11.2%) compared to England (13%), levels of obese children (10.4%) statistically similar to the national rate (9.6%).
- The rate of healthy weight children in Leicester (75.7%) is statistically similar to the national rate (76.4%).

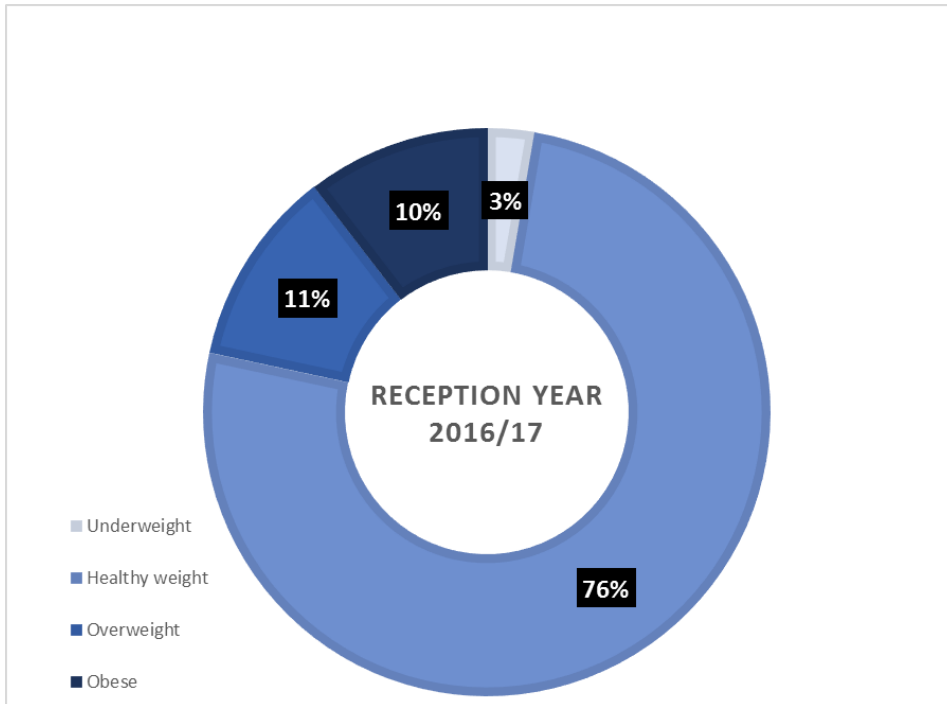
Year 6:

- Leicester has a significantly higher prevalence of underweight children (3.0%), over double the national rate (1.3%).
- 37.2% of children were either overweight or obese, this is significantly higher than the national rate (34.2%). Levels of obesity (23.5%) is higher than overweight (13.7%).
- Leicester has a statistically similar prevalence of overweight children (13.7%) compared to England (14.3%), obesity prevalence (23.5%) is significantly higher than England (20%).
- The rate of healthy weight children (59.8%) is significantly lower than the national rate (64.4%).

Overall:

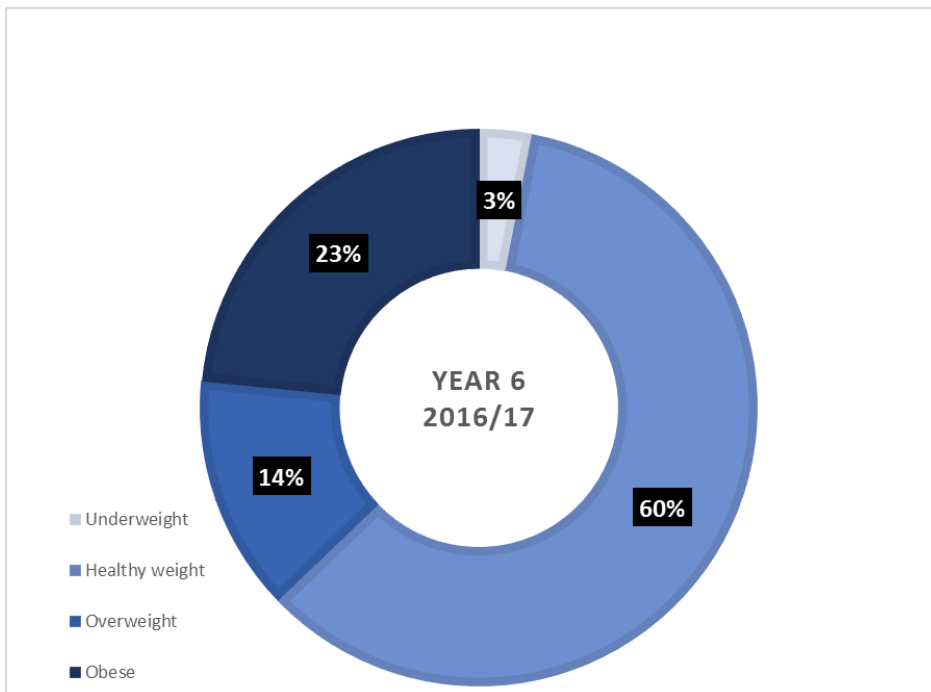
- The percentage of obese children in year 6 (23.5%) is over double that of reception year (10.4%)
- Among reception year children, the prevalence of overweight pupils (11.2%) was greater than the prevalence of obese children (10.4%). In year 6 the opposite is true with prevalence of overweight children (13.7%) being lower than that of obese children (23.5%).
- The prevalence of healthy weight children was higher in reception year (75.7%) than year 6 (59.8%).
- The prevalence of underweight children is slightly higher in year 6 (3%) than reception year (2.7%).
- In Reception year, the percentage of underweight children in Leicester has remained above 2% in the last three years. In comparison the national average has remained below 1% in the last three years. There has been little change in the prevalence for overweight and obese since 2012/13.
- In Year 6, the prevalence of underweight children has increased from 2.7% in 2015/16 to 3% in 2016/17. The prevalence for overweight children has decreased by 0.4% since 2015/16 to 13.7% in 2016/17. The percentage of obese children continues to increase from 21.1% in 2013/14 to 22.1% in 2014/15, 23.1% in 2015/16 and now 23.5% in 2016/17.

Figure 9: Prevalence of underweight, healthy weight, overweight and obese children in Reception Year in Leicester – 2016/17



Source: NHS Digital 2017

Figure 10: Prevalence of underweight, healthy weight, overweight and obese children in Year 6 in Leicester – 2016/17

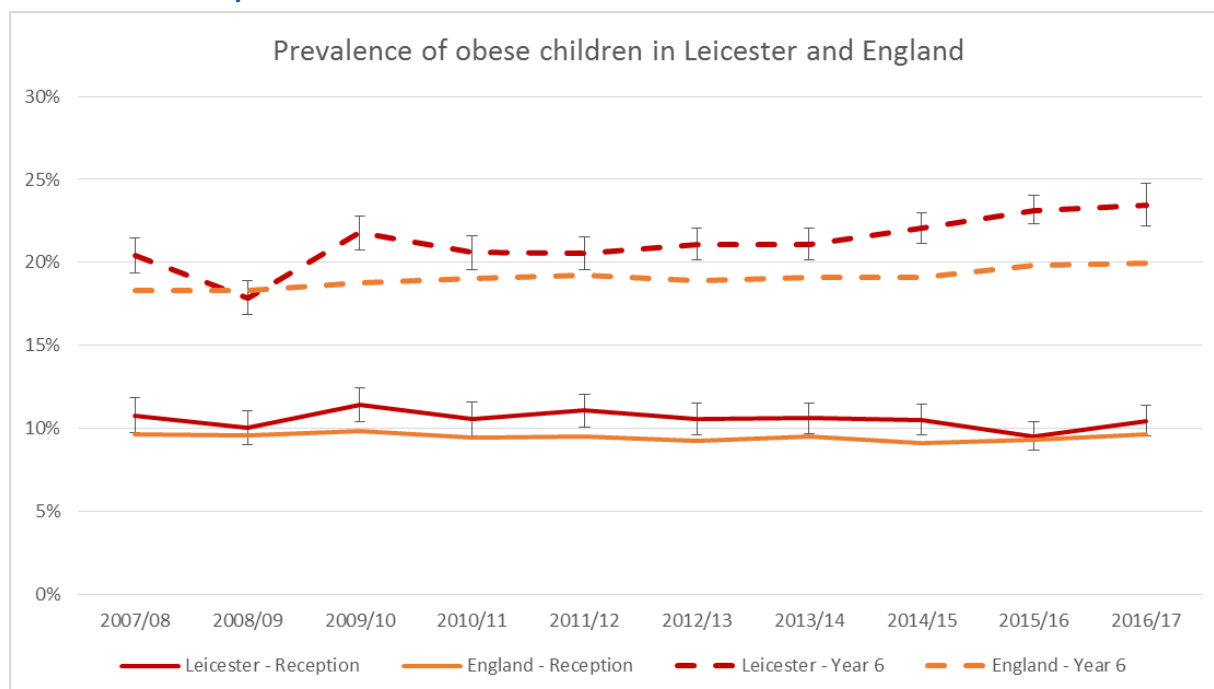


Source: NHS Digital 2017

6. NCMP Trend Analysis – Leicester

Figure 11 shows the trend in obesity prevalence for reception and year 6 children. The year 6 obesity prevalence in Leicester has been significantly higher than the England rate since 2012/13. Both the national and local rate has been increasing since 2007/08¹. Levels of obesity amongst reception children has remained steady for both Leicester and England.

Figure 11: Prevalence of obese children by school year in Leicester and England – 2007/08 to 2016/17

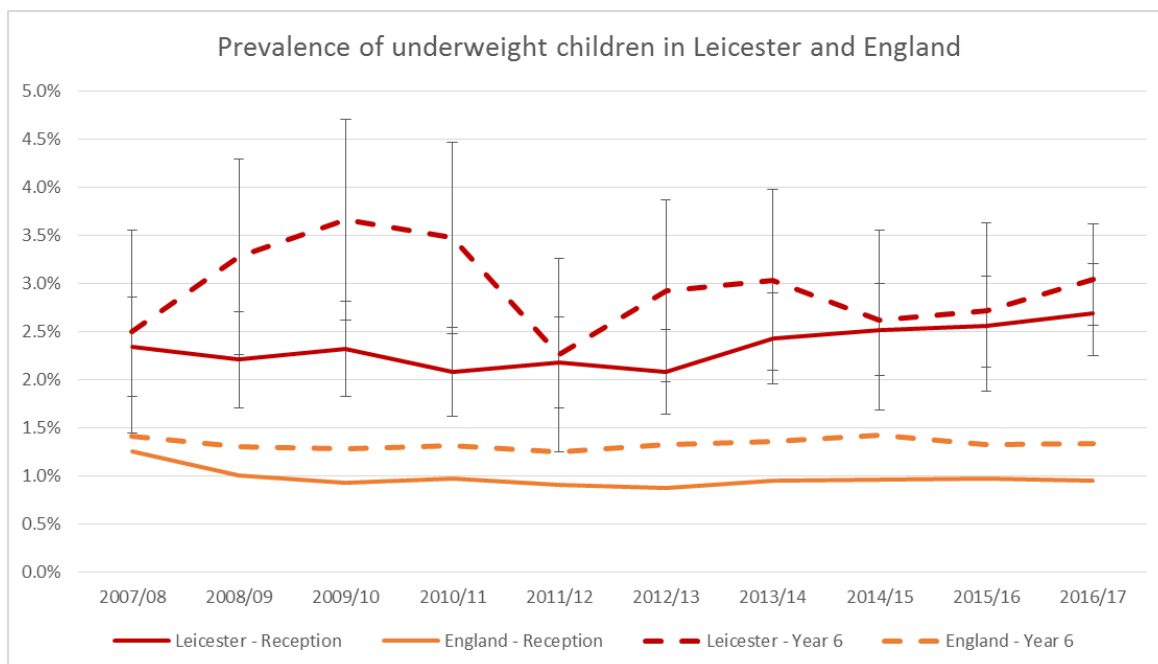


Source: NHS Digital 2017

Figure 12 (below) shows the trend in underweight prevalence for reception and year 6. The prevalence for Leicester has remained over double the national rate and is significantly higher than national rates for both age groups.

¹ In 2008/09 there is clearly a lower prevalence of obesity for year 6 children however this is offset by a higher overweight prevalence during this year

Figure 12: Prevalence of underweight children by school year in Leicester and England – 2007/08 to 2016/17



Source: NHS Digital 2017

7. Prevalence by Gender

In Leicester City, 2016/17:

- A total of 4390 children were measured in reception year, 2283 (52%) were boys and 2107 (48%) were girls.
- In year 6 there were 4068 children measured, 2117 (52%) were boys and 1951 (48%) were girls.

Table 1: Prevalence of underweight, healthy weight, overweight and obese children by year and sex, 2016-17

School year	Area	Sex	Under weight	Healthy weight	Overweight	Obese	Over weight /Obese
Reception	Leicester	Boys	3.2%	74.1%	11.3%	11.3%	22.6%
		Girls	2.1%	77.4%	11.1%	9.5%	20.6%
		Total Reception	2.7%	75.7%	11.2%	10.4%	21.6%
Reception	England	Boys	1.2%	75.6%	13.1%	10.0%	23.2%
		Girls	0.7%	77.2%	12.9%	9.2%	22.1%
		Total Reception	1.0%	76.4%	13.0%	9.6%	22.6%
Year 6	Leicester	Boys	2.4%	58.9%	13.7%	25.0%	38.7%
		Girls	3.7%	60.7%	13.8%	21.8%	35.6%
		Total Year 6	3.0%	59.8%	13.7%	23.5%	37.2%
Year 6	England	Boys	1.2%	62.8%	14.3%	21.8%	36.0%
		Girls	1.5%	66.1%	14.3%	18.1%	32.4%
		Total Year 6	1.3%	64.4%	14.3%	20.0%	34.2%



Significantly better than the England (Boys / Girls / Overall)

Significantly worse than the England (Boys / Girls / Overall)

Reception Year:

- Leicester has a significantly higher prevalence of underweight children (2.7%) compared to England (1.0%). Rates in both boys (3.2%) and girls (2.1%) are over double the national rates for boys and girls (1.2% and 0.7% respectively).
- Leicester has a significantly lower prevalence of overweight children (11.2%) compared to England (13%). Levels of overweight are similar in girls (11.1%) and boys (11.3%) in Leicester, the rate for boys and girls in Leicester is significantly lower in comparison to the national average for overweight boys (13.1%) and overweight girls (12.9%).

- Leicester has a statistically similar prevalence of obese children (10.4%) as England (9.6%). Leicester boys (11.3%) and girls (9.5%) also have a statistically similar prevalence of obesity as boys and girls in England (10% and 9.2% respectively).
- Levels of healthy weight in Leicester are statistically similar for boys (74.1%) and girls (77.4%) compared to boys and girls in England (75.6% and 77.2% respectively).

Year 6:

- Leicester has a significantly higher prevalence of underweight children (3%) compared to England (1.3%). Boys (2.4%) and girls (3.7%) in Leicester have a significantly higher prevalence of being underweight compared to boys and girls nationally (1.2% and 1.5% respectively).
- Levels of healthy weight are higher in girls (60.7%) than boys (58.9%). Leicester boys and girls have significantly lower levels of healthy weight in comparison to boys (62.8%) and girls (66.1%) in England.
- Levels of overweight in Leicester are statistically similar in boys (13.7%) compared to boys in England (14.3%) and the same for girls (13.8%) when compared to girls in England (14.3%)
- Levels of obesity in Leicester (23.5%) are significantly higher in comparison to England (20%). Levels of obesity are significantly higher in boys (25%) than boys in England (21.8%). Levels of obesity are also significantly higher in Leicester girls (21.8%) than girls in England (18.1%).

8. Prevalence by Ethnicity

In Leicester City, 2016/17:

- A total of 4390 children were measured in reception year, 1553 (35.4%) were White, 1736 (39.5%) were Asian, 384 (8.7%) were Black, 336 (7.7%) were from a Mixed heritage. A further 2.4% stated other ethnic group, while 5.7% did not state any ethnic group.
- In year 6 there were 4068 children measured, 1474 (36.2%) were White, 1722 (42.3%) were Asian, 463 (11.4%) were Black, while 272 (6.7%) were from a Mixed heritage. A further 1.7% stated other ethnic group while 1.5% did not state any ethnic group.

Table 2: Prevalence of underweight, overweight and obese children in reception year by ethnic group in Leicester, 2016-17

Reception Year	Underweight %	Overweight %	Obese %
White	0.4%	14.4%	11.3%
Mixed	*	11.3%	14.0%
Asian	5.0%	6.8%	7.3%
Black	2.3%	19.5%	18.0%
Any Other Ethnic Group	*	18.1%	11.4%
Unknown	4.0%	6.0%	9.9%
Leicester Total	2.7%	11.2%	10.4%
England Total	1.0%	13%	9.6%

	Significantly lower than the England overall average
	Significantly higher than the England overall average
	Significantly lower than the England average within the same ethnic category
	Significantly higher than the England average within the same ethnic category
*	Data suppressed due to small numbers (numbers less than 5)

Reception Year:

- Asian children in Leicester have a significantly higher prevalence of being underweight (5%) compared to the national average for underweight Asian children (3.6%) and the overall national average (1.0%). White children (0.4%) have a significantly lower prevalence of being underweight in comparison to the overall national average.
- Asian children in Leicester have a significantly lower prevalence of being overweight (6.8%) compared to the national average for overweight Asian children (8.8%) and the overall national average (13%). Black children in Leicester have a significantly higher prevalence of being overweight (19.5%) compared to the national average for overweight Black children (14.6%) and the overall national average.
- White children in Leicester have a significantly higher prevalence of being obese (11.3%) compared to the national average for obese white children (9.1%) and the overall national

average (9.6%). Black children have a significantly higher prevalence of being obese (18%) compared to the overall national average. Asian children have a significantly lower prevalence of obesity (7.3%) in comparison to the national average for obese Asian children (9.9%) and also the overall national average.

Table 3: Prevalence of underweight, overweight and obese children in year 6 by ethnic group in Leicester, 2016-17

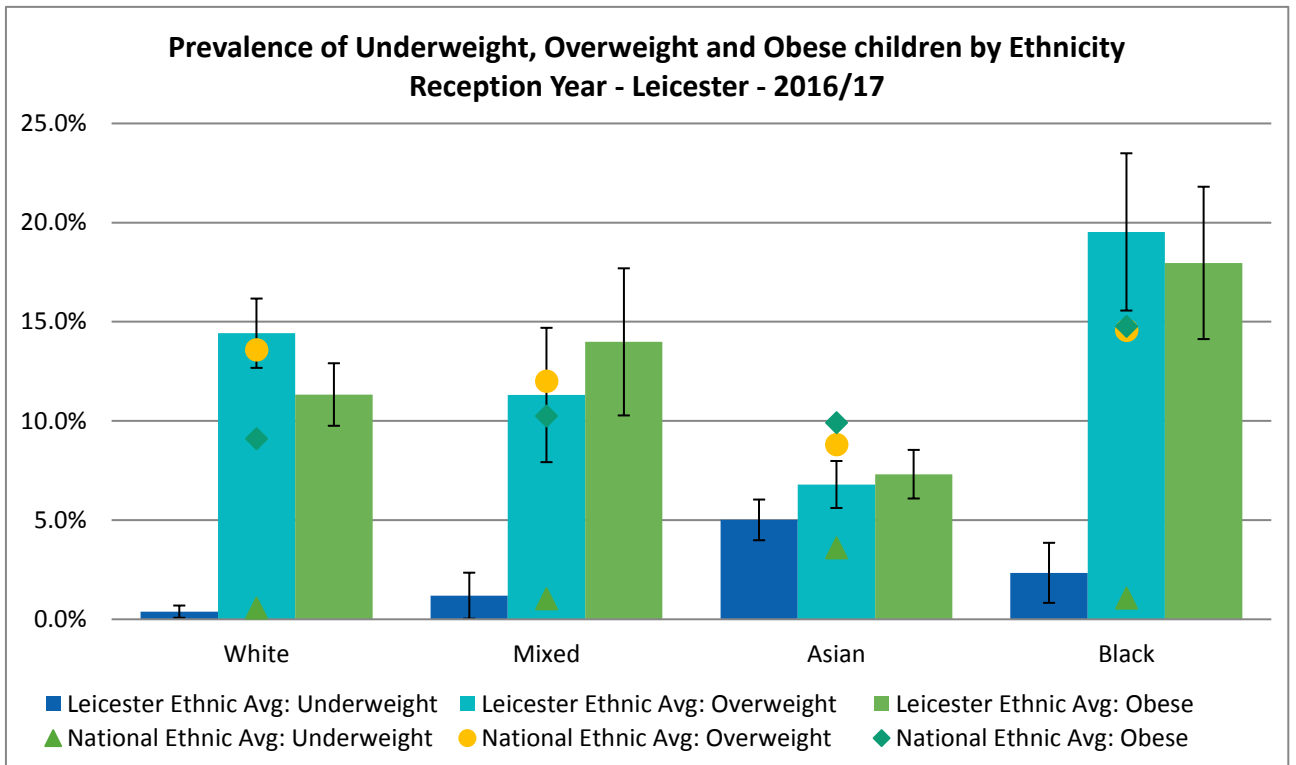
Year 6	Underweight %	Overweight %	Obese %
White	1.2%	12.3%	23.4%
Mixed	*	15.4%	22.1%
Asian	5.2%	14.3%	22.6%
Black	2.4%	15.1%	28.9%
Any Other Ethnic Group	0.0%	9.9%	21.1%
Unknown	*	19.7%	14.8%
Leicester Total	3.0%	13.7%	23.5%
England Total	1.3%	14.3%	20%

	Significantly lower than the England overall average
	Significantly higher than the England overall average
	Significantly lower than the England average within the same ethnic category
	Significantly higher than the England average within the same ethnic category
	Significantly lower than the England average within the same ethnic category and significantly higher than the England overall average
*	Data suppressed due to small numbers (numbers less than 5)

Year 6:

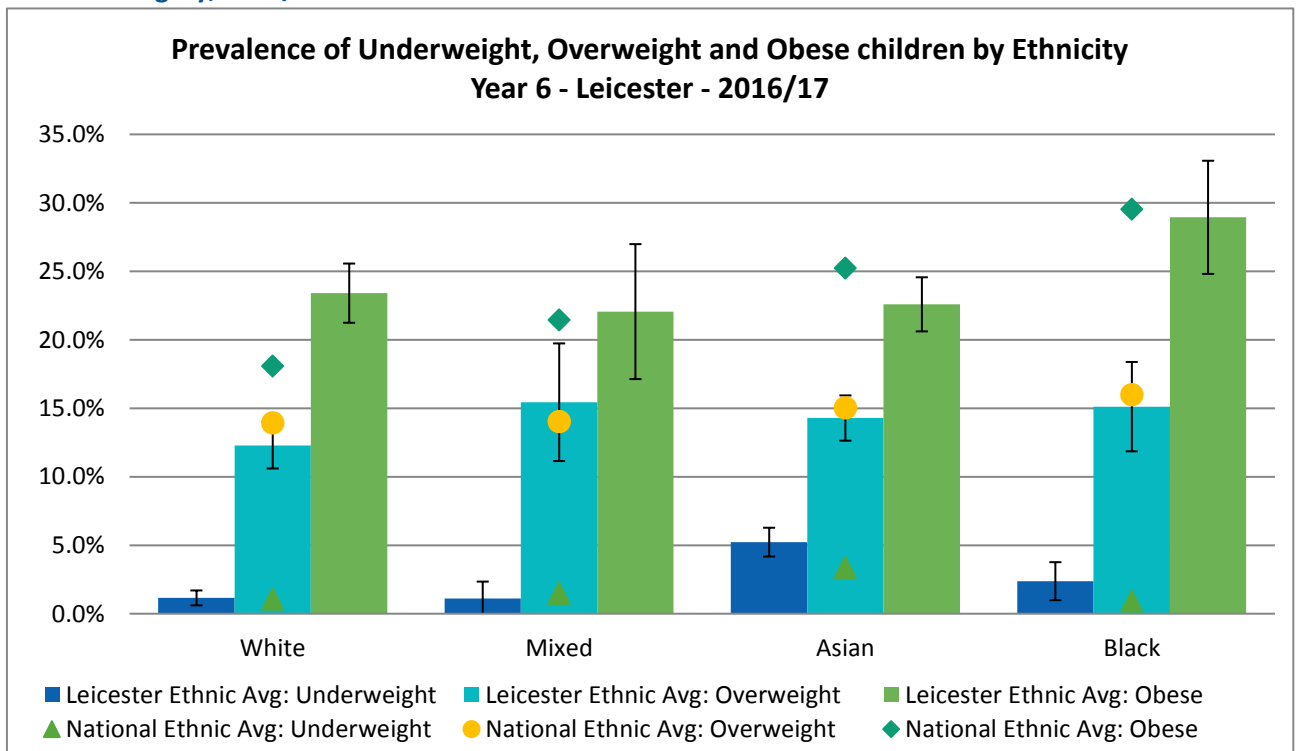
- Asian children have a significantly higher prevalence of being underweight (5.2%) compared to the national average for underweight Asian children (3.4%) and the overall national average (1.3%).
- White children in Leicester have a significantly higher prevalence of being obese (23.4%) compared to the national average for obese white children (18.1%) and the overall national average (20%). Black children have a significantly higher prevalence of being obese (28.9%) compared to the overall national average. Asian children in Leicester have a significantly lower prevalence of being obese (22.6%) compared to the national average for obese Asian children (25.2%), however, Asian/Asian British children have a significantly higher prevalence of being obese in comparison to the overall national average.

Figure 13: Prevalence of underweight, overweight and obese children in reception year, by ethnic category, 2016/17



Source: NHS Digital 2017

Figure 14: Prevalence of underweight, overweight and obese children in year 6, by ethnic category, 2016/17



Source: NHS Digital 2017

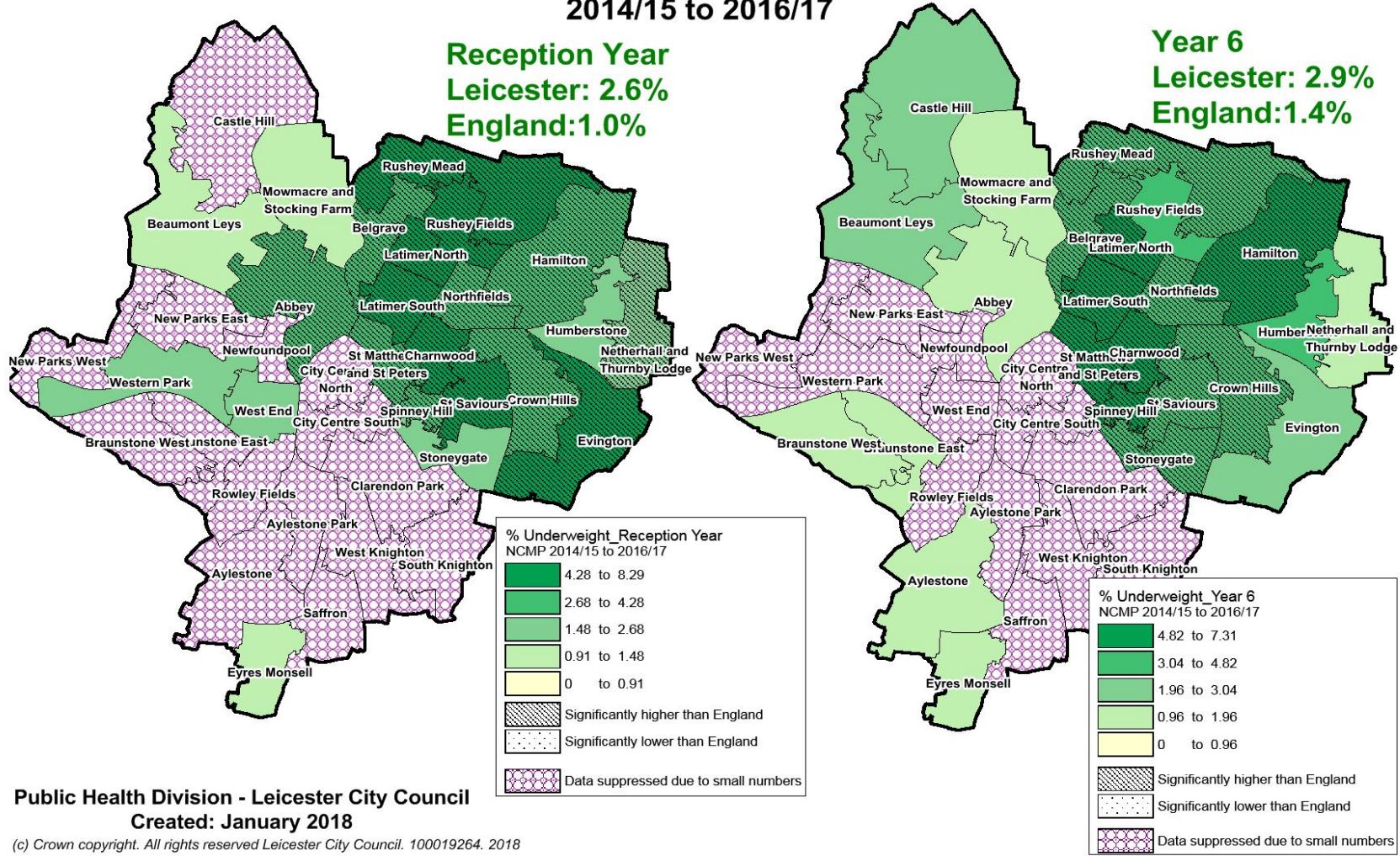
9. Prevalence by Middle Super Output Area (MSOA)

The numbers of children are relatively small at MSOA level. In the maps that follow, the rates have been calculated as a three year average in order to make the numbers more robust. For comparison purposes the Leicester and England rates shown here are also three year averages. MSOA codes have been assigned a local neighbourhood name to help distinguish areas and these are noted on the map and relevant tables.

The number of children measured in each MSOA differs and in some cases this difference is considerable. Braunstone, Beaumont Leys, Mowmacre & Stocking Farm, New Parks, Hamilton and areas to the east of the city centre have higher numbers of measured children. The city centre and areas to the west and south of the centre have lower numbers of children. This should be considered when analysing prevalence in each MSOA and what it means in terms of number of children

Note: The following maps include data on children who are resident in the city and attend a school in the city or county, it is important to note that it will not include children who reside in Leicester but attend a school outside of the city and county.

**National Child Measurement Programme
Prevalence of Underweight children in Leicester by MSOA
2014/15 to 2016/17**

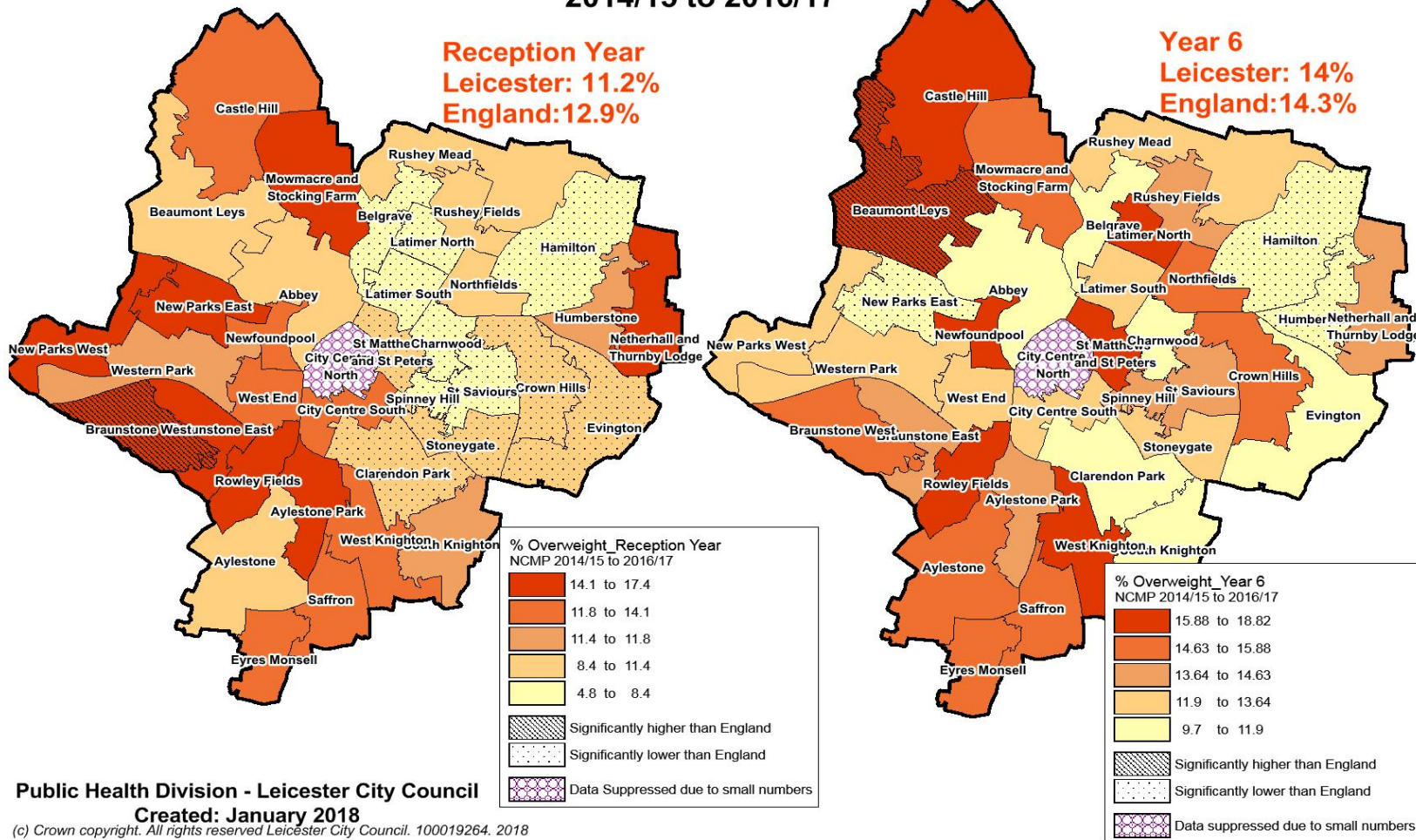


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- Levels of underweight are significantly higher amongst MSOAs within the East of the city for both year groups.
- City Centre North and City Centre South have significantly lower levels of underweight children in reception year, and year 6 (including West End) in comparison to the national 3 year average.

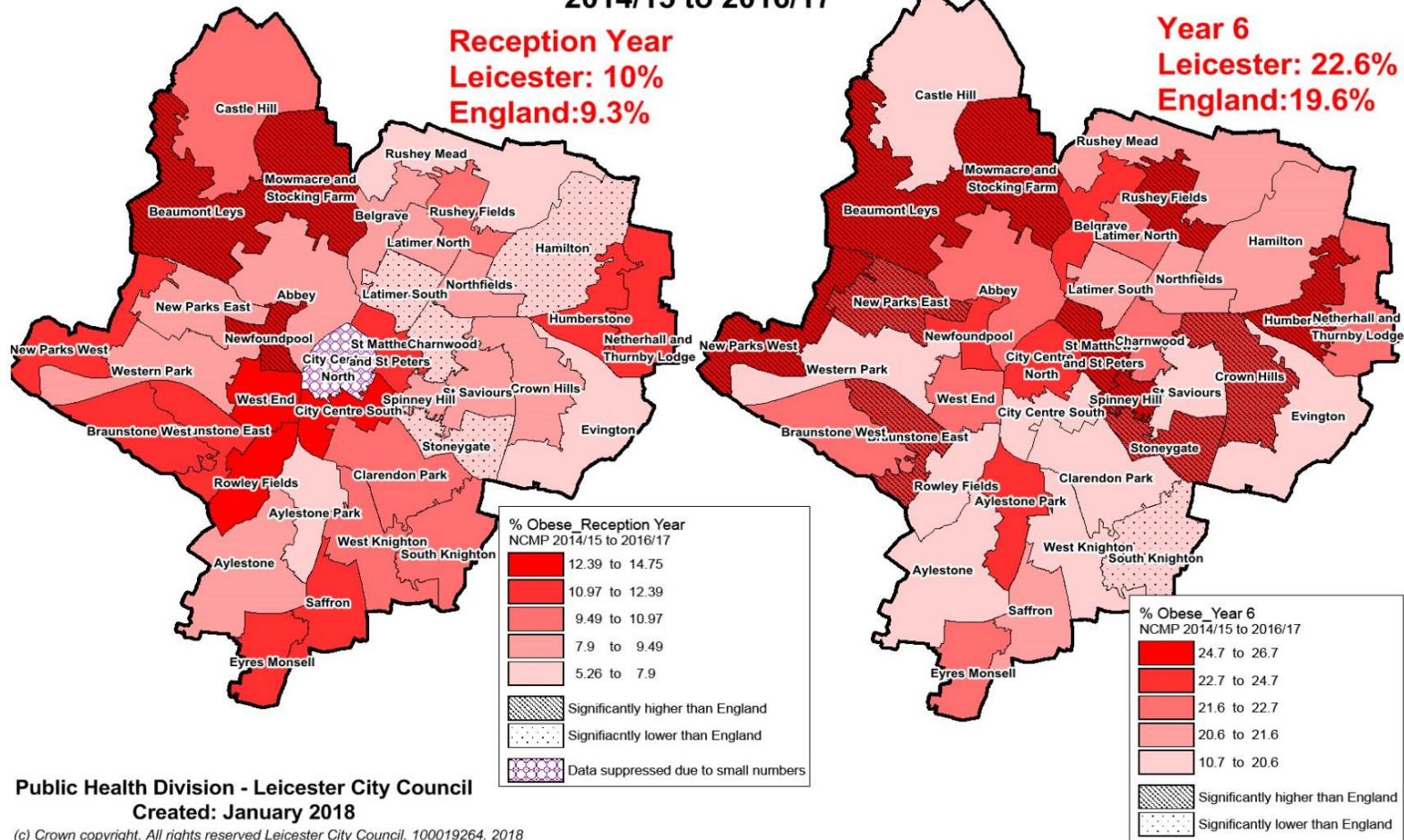
National Child Measurement Programme Prevalence of Overweight children in Leicester by MSOA 2014/15 to 2016/17



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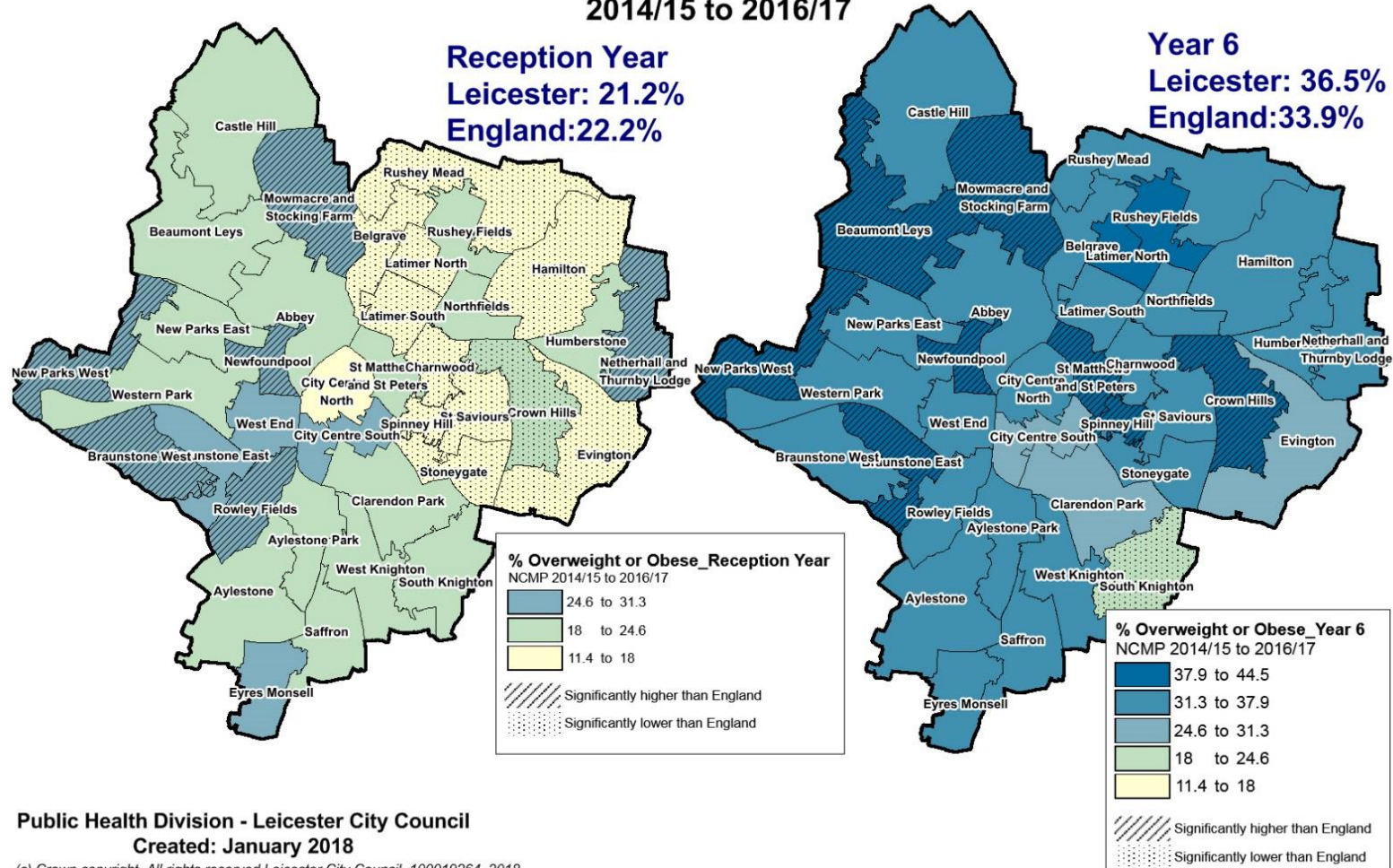
- The west of the city show higher levels of overweight children in reception year, with Braunstone West being significantly higher than England. For year 6, higher levels of overweight are amongst various MSOAs throughout the city, with Beaumont leys being statistically significantly higher than England.
- For reception year, significantly lower levels of overweight children are shown in areas to the east of the city. For year 6, 3 MSOAs have significantly lower levels of overweight children in comparison to England.

**National Child Measurement Programme
Prevalence of Obese children in Leicester by MSOA
2014/15 to 2016/17**



- For reception year, there are 3 areas of the city and for year 6 there are 11 areas reporting a statistically higher prevalence of obese children in comparison to England.
- In Stoneygate, the prevalence of obesity has risen from a rate significantly lower than England to significantly higher by year 6.
- Areas with significantly lower rates of obesity are mainly in the east of the city for reception aged children. For year 6, South Knighton is the only MSOA that reports a significantly lower rate of obesity in comparison to England.

**National Child Measurement Programme
Prevalence of Overweight or Obese children in Leicester by MSOA
2014/15 to 2016/17**



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- Excess weight for reception children is significantly higher than England in areas including New Parks, Braunstone, Netherhall & Thurnby Lodge, and Newfoundpool. Areas to the east of the city are more likely to have a rate significantly lower than England for excess weight at reception age.
- By year 6 excess weight has increased in all areas. Rates remain significantly higher than England in New Parks, Braunstone, Mowmacre & Stocking Farm and Newfoundpool. Crown Hills and Spinney Hill are areas where excess weight has risen from a rate significantly lower than England to significantly higher by year 6.
- South Knighton is the only area in Leicester with a significantly lower rate than England for Excess Weight amongst Year 6 children.

10. Prevalence by Deprivation

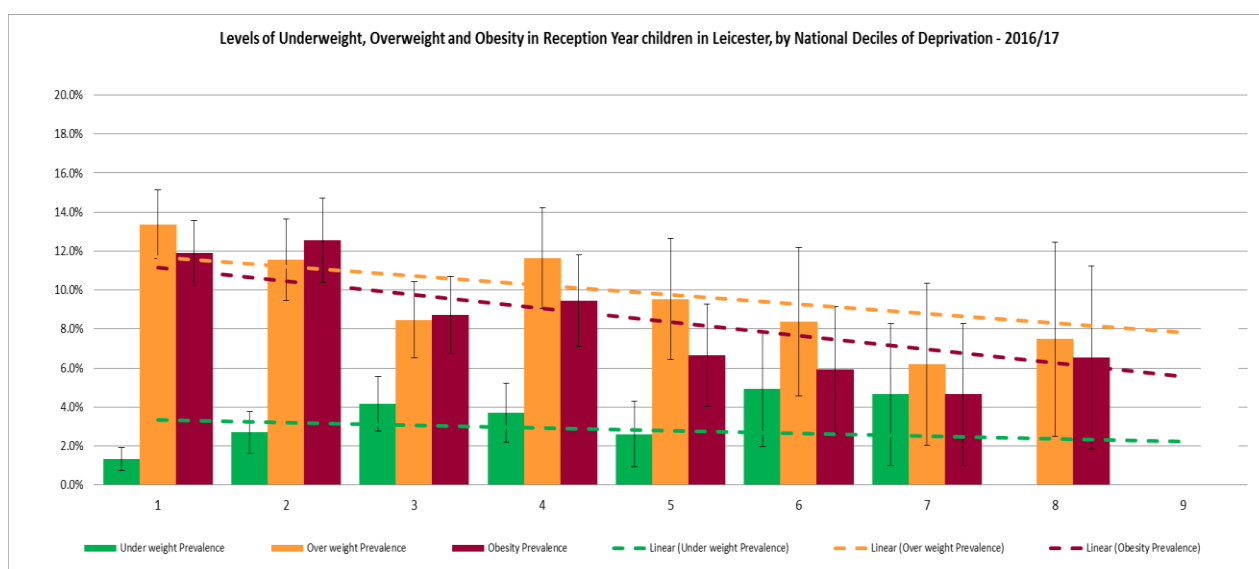
The Index of Multiple Deprivation 2015 (IMD) measures relative deprivation between and within Local authorities in England. It brings together a range of data that cover seven different domains including Income; Employment; Education, Skills and Training; Health Deprivation and Disability, Crime; Barriers to Housing and Services; Living Environment.

Note: It is important to note that this data is based on children who are resident in the city and attend a school in the city or county, it is important to note that it will not include children who reside in Leicester but attend a school outside of the city and county

Leicester is ranked within the 10% most deprived local authorities in England. Compared to England, Leicester has almost double the population living in the two fifths (40%) most deprived LSOA's in the country. 76% of Leicester's population, compared with only 40% of England's, live in the 40% most deprived LSOAs (Lower Super Output Areas) in the country.

Levels of underweight, overweight, and obesity have been calculated according to deciles of deprivation. For both national and local results, records have been placed into one of ten equal sized groups (deciles) based on the deprivation score of the Index of deprivation 2015 for the child's residence. The prevalence of underweight, overweight and obese children has then been calculated within each group (where decile 1 is the 10% most deprived nationally and decile 10 is the 10% least deprived nationally).

Figure 15: Prevalence of underweight, overweight and obese children in Reception Year, by deprivation decile, 2016/17



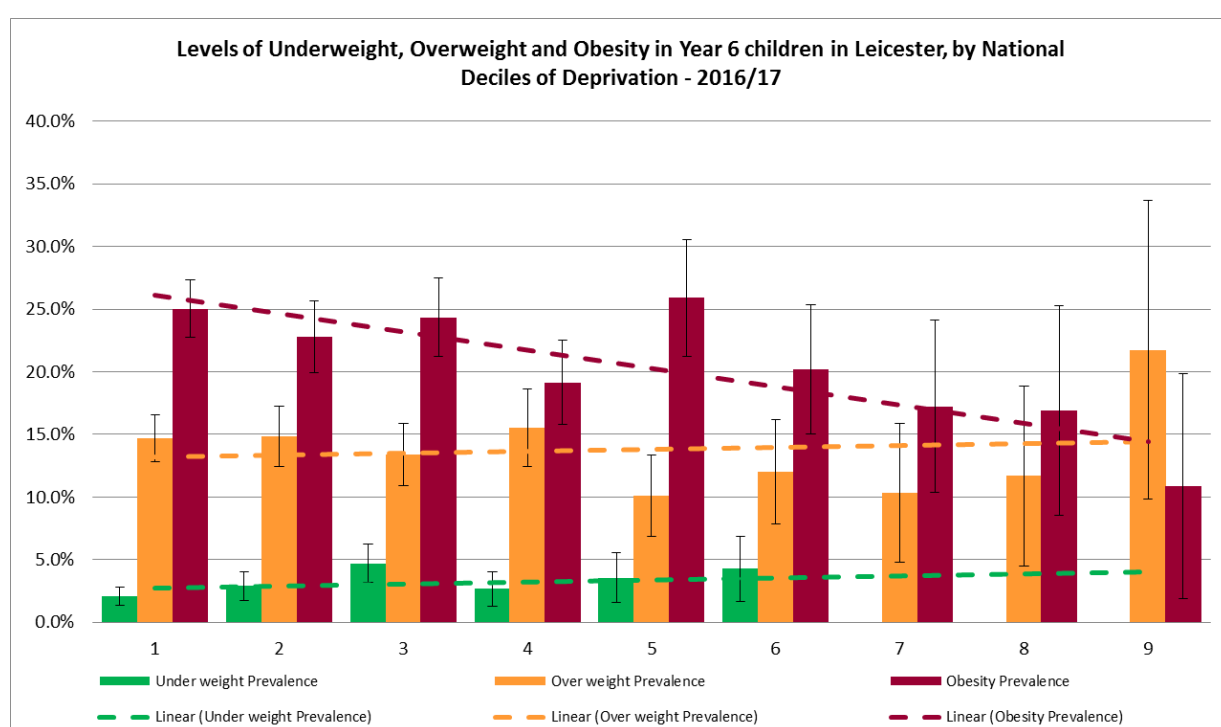
Source: NHS Digital 2016/17

Note: Data from deciles (8 and 9) have been suppressed due to small numbers. The trendlines consider the suppressed data from D8 and D9.

Reception year:

- There is no obvious trend with levels of underweight and levels of deprivation in Leicester. However, there are significantly higher levels of underweight in deciles 2, 3, 4, 6 and 7 in Leicester compared to the overall national average and the national average within the same decile.
- The trend for overweight prevalence is similar across all deciles in Leicester. Levels of overweight are significantly lower in deciles 3, 4, 5, 6, 7 and 8 in comparison to the national average within the same decile.
- For obesity, decile 1 and 2 have significantly higher rate in comparison to decile 1 and 2 nationally.

Figure 16: Prevalence of underweight, overweight and obese children in Year 6, by deprivation decile, 2016/17



Source: NHS Digital 2016/17

Note: Data from deciles (7, 8 and 9) have been suppressed due to small numbers. The trendlines consider the suppressed data from D7, D8, and D9.

Year 6:

- There is no obvious trend with levels of underweight and levels of deprivation in Leicester. However, there are significantly higher levels of underweight in deciles 2, 3, 5 and 6 in Leicester compared to the overall national average and the national average within the same decile
- The trend for overweight is similar across all deciles of deprivation in Leicester in comparison to the national average.
- The trend for obesity prevalence shows an increase with greater deprivation. This reflects the national pattern reported in the NCMP National report 2016/17. There are significantly

higher levels of obesity in deciles 1, 3 and 5 in Leicester compared to the national average within the same decile and decile 5 also has a significantly higher rate in comparison to overall national average.

11. Local progress on tackling obesity

The Public Health team at Leicester City Council is leading on the development of a multi-agency healthy weight strategy for Children, Young People & Families. A steering group of local partners has been formed to oversee the development and monitoring of the strategy and action plan. The group includes representatives from Public Health, CCG, NHS, voluntary sector, Education, Sport etc.

Four specific services aimed at improving levels of healthy weight, diet and activity levels are currently commissioned, as outlined below. In addition many other services commissioned or provided by the council will impact on these issues.

Healthy Eating in Schools Initiative - Food for Life Programme in schools:

The Food for Life Programme has been running in schools since April 2015. 70 schools have signed up to the programme and there has been a focus to engage with schools in areas of most need. The aim is to support schools to develop a 'whole school approach' to address and create positive food culture across the school community. Bespoke advice and training is offered to schools with an opportunity to engage with a progressive awards programme which focuses on key areas such as food leadership, food education, food quality and engaging with the community.

Training courses and curriculum materials are provided to support and develop capability and capacity of school to offer practical cooking, develop food growing as well as a process that engages and support school cooks, lunchtime supervisors in order to encourage uptake of healthy nutritionally balanced school meals.

The awards programme offers guidance to address the elements required to embed practice that encourages all school community to develop a positive approach to food. The aim is for pupils to develop a good understanding of the importance of healthy food choices and to support healthier outcome for themselves and the wider community.

School-based physical activity programme:

The aim of the commissioned service is to target inactive children in primary schools and encourage them to become more active. The team deliver a range of physical activity sessions and training for school staff including physical literacy sessions in primary schools, balance ability (balance bike training) and training on playground supervision for lunchtime supervisors and young leaders. In addition the service works with schools and offers advice and support regarding how best to increase physical activity levels, meeting Ofsted requirements and best use of the school sport premium.

Early years' healthy eating initiative:

The aim of the service is to ensure delivery of Healthy Eating Initiatives in children's centres and other early years settings in Leicester, to ensure that healthy and sustainable eating behaviours in children and families increase. The initiatives will ensure an increase in knowledge, skills and confidence related to promoting healthy eating in children, families and early years' practitioners. Settings are supported to complete self-assessments and develop actions to promote compliance with the voluntary food and drink guidelines for early years' settings. Early years settings are supported to develop and write a food policy and attend 0-5 years nutrition training delivered by Leicestershire Nutrition and Dietetic service. Staff and volunteers are also trained to deliver practical cook and eat sessions (ie Big Cook Little Cook), with links to community growing schemes supported.

Family Lifestyle Clubs (FLiC):

Programmes for overweight/ obese children and their families run across the city targeted at areas with the highest levels of childhood obesity and delivered in areas of deprivation. All children must be accompanied by at least one parent or carer. The 8 week programmes include advice and support regarding developing healthy eating habits, supporting families to set goals to change their lifestyles and include some physical activity at each session. Programmes targeted at children are focussed on maintaining weight and growing into their weight rather than losing weight. The key to the success of the programme is that it is enjoyable and families have fun without any element of stigmatising

Other services that will impact on childhood obesity:

Many other services that are commissioned or provided by the local authority will impact on levels of healthy weight in children. In particular health visiting, school nursing and children's centre services already support children, young people and their families to adopt healthy behaviours by providing advice and support on e.g. breastfeeding, healthy weaning and healthy diets and increasing levels of physical activity. Many of these staff have been trained in HENRY (Health Exercise and Nutrition for the Really Young) which provides a framework for staff to use when working with families to support behaviour change. Children's centre staff have also been trained in the past to run cook and eat programmes and these still run in many children's centres.

The oral health team within the public health department also promote healthy eating messages with nurseries, children's centres and schools in their work to improve the oral health of children in the city.

Initiatives to promote active travel such as bikeability, family led-rides, promotion of walking and cycling to school will all also have a positive impact on increasing levels of physical activity.

There are increasing links between relevant programmes within schools such as Food for Life, Eco-schools, the Living Streets Walk to School programme and the School Sport and Physical Activity Network

Guidance for tackling childhood obesity

The recent **Ending Childhood Obesity** report published by the World Health Organization's Commission on Ending Childhood Obesity (2016) provides a number of recommendations of tackling obesity, these are summarised below. The report identifies that obesity now threatens to negate the health benefits that have contributed to an increased life expectancy. It is highlighted that in addition to affecting a child's health childhood obesity can impact upon educational attainment, quality of life and the likelihood of being obese as an adult. The commission attempts to confront the challenges of living in an obesogenic environment, an environment that promotes high energy intake and sedentary behaviour and encourages weight gain and obesity, by providing a series of recommendations:

Promote intake of healthy foods – in addition to ensuring appropriate nutritional information and guidelines, a tax on sugar sweetened beverages and appropriate marketing of unhealthy foods that reduces the exposure to children is recommended. Accessibility to healthy foods in disadvantaged communities should also be improved.

Promote physical activity – includes the promotion of comprehensive programmes that help reduce sedentary behaviours in children and adolescents.

Preconception and pregnancy care – includes an additional focus on guidance for appropriate nutrition and advice for prospective fathers and mothers.

Early childhood diet and physical activity – includes supporting mothers to breastfeed, ensuring only healthy foods, beverages and snacks are served in child care settings.

Health, nutrition and physical activity for school age children – includes the promotion of healthy school environments and physical activity.

Weight management – includes the provision of family based services for children and young people who are obese.