

# UNHEALTHY WEIGHT IN LONDON'S CHILDREN. WHAT WE KNOW



**LONDON'S  
CHILD  
OBESITY  
TASKFORCE**



SUPPORTED BY  
**MAYOR OF LONDON**



When the Mayor of London committed to address unhealthy weight among London's children in his Health Inequalities Strategy 2018, he was responding to a stark reality. Unhealthy weight among 10–11 year olds is higher in the capital than in any other region of England. So is the degree of inequality between rich and poor. This guide provides a snapshot of what we know about unhealthy weight in London today.

#### Defining unhealthy weight

This refers to children with a body mass index classified as overweight, obese or severely obese in the National Child Measurement Programme.

According to the latest data, around one in five (22%) of London's 4–5 year olds has an unhealthy weight. This ranks the London region sixth in England for unhealthy weight in this age group. By age 10–11, when children leave primary school, the figure rises to 38% – the highest level of any region in England. In some boroughs, this rises to almost 50%.

#### The impact of unhealthy weight

The evidence shows that being affected by unhealthy weight in childhood damages children's health both now and in the future. Unhealthy weight in childhood can lead to:

- early onset of chronic conditions, such as type 2 diabetes, metabolic syndrome, cardiovascular disease and some cancers.<sup>1</sup>
- a high risk of unhealthy weight in adulthood, with a greater risk of physical morbidity, disability and premature death in adulthood.<sup>2</sup>
- poor psychological and emotional health including anxiety and depression, low self-esteem and a higher likelihood of experiencing bullying and stigma.<sup>3,4</sup>
- tooth decay: a quarter of five-year olds have tooth decay when they start school, with higher levels for children in poverty and children who are overweight or obese.<sup>5,6</sup>
- This comes with enormous and rising costs to public spending: the lifetime healthcare and productivity costs of childhood obesity are estimated to be £129,604 per child, with the overall economic costs of obesity to the UK valued to be £20 billion annually.<sup>7,8</sup>

The London Child Obesity Taskforce was established in 2018 as part of the Mayor's commitment to address child obesity. Find out more at [www.london.gov.uk/what-we-do/health/londons-child-obesity-taskforce](http://www.london.gov.uk/what-we-do/health/londons-child-obesity-taskforce) or email [childobesitytaskforce@london.gov.uk](mailto:childobesitytaskforce@london.gov.uk)

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<sup>1</sup> Biro F, Wien M 2010. Childhood obesity and adult morbidities. *The American Journal of Clinical Nutrition*; 91(5): 1499S–1505S

<sup>2</sup> Reilly J, Kelly J 2011. Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review. *International Journal of Obesity* 35: 891–98

<sup>3</sup> Morrison et al 2015. Association of depression and health related quality of life with body composition in children and youth with obesity. *Journal of Affective Disorders* 172:18–23

<sup>4</sup> Halfon N et al 2013. Associations between obesity and comorbid mental health, developmental, and physical health conditions in a nationally representative sample of US children aged 10 to 17. *Academic Pediatrics* 13(1): 6–13

<sup>5</sup> National Dental Epidemiology Programme for England 2018. Oral health survey of five-year-old children 2017. London, PHE

<sup>6</sup> PHE 2015. The relationship between dental caries and obesity in children: an evidence summary. London, PHE

<sup>7</sup> Hamilton et al 2017. The lifetime costs of overweight and obesity in childhood and adolescence: a systematic review. *Obesity Reviews* 6: 1–12

<sup>8</sup> LGA/PHE 2013. Social care and obesity: a discussion paper. London, LGA/PHE

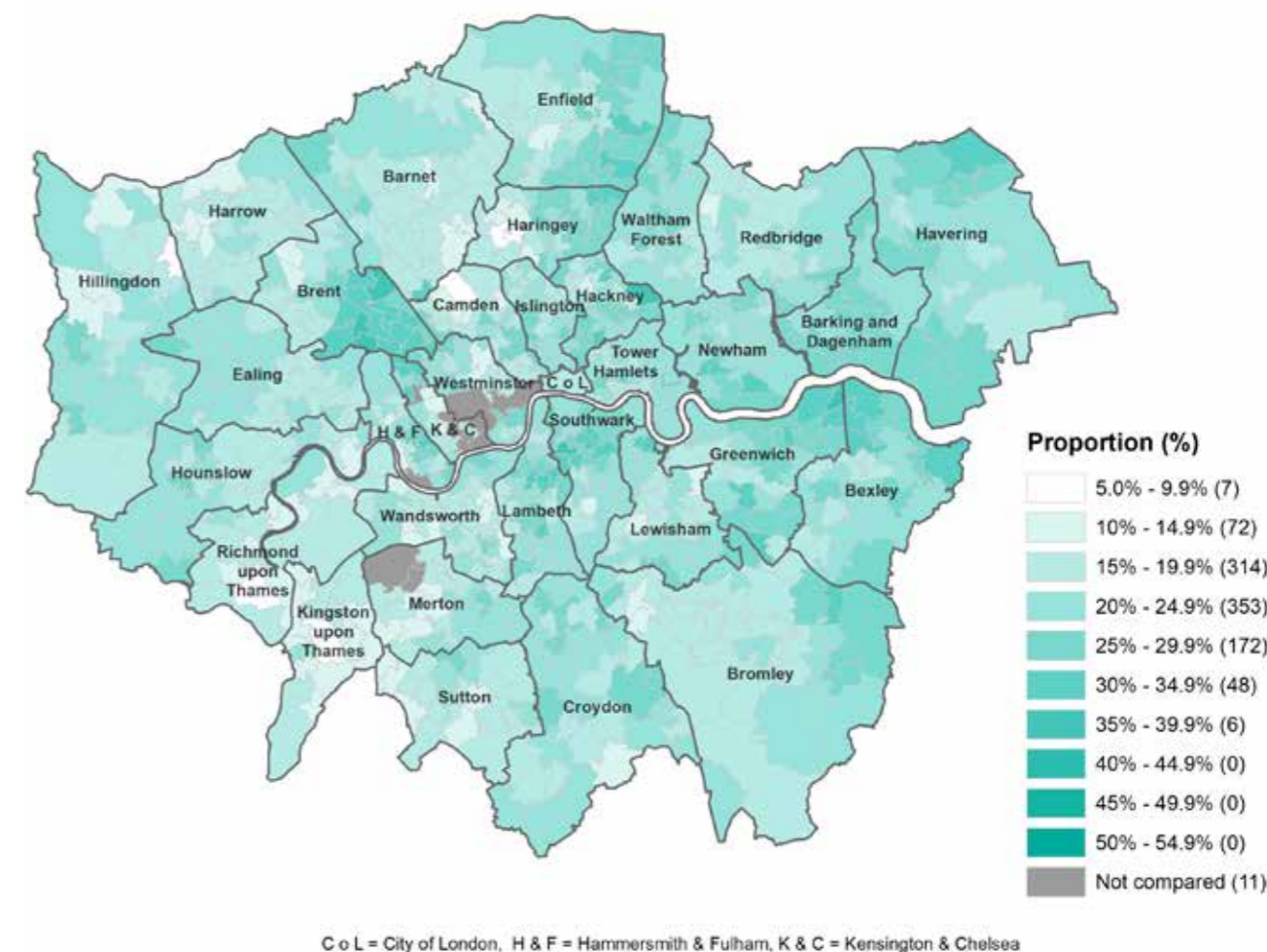
**VARIATION**

The rates of unhealthy weight in London are high compared to other world cities such as Paris, Madrid and Toronto.<sup>9</sup> But there is also strong variation between London's different neighbourhoods - in other words, between middle layer super output areas (MSOAs) - a geographic hierarchy designed to improve the reporting of small area statistics in England. Between these areas, there are wide differences in rates of unhealthy weight in children.

At age 4-5 the number of children affected by unhealthy weight ranges from 8.3% in Muswell Hill (in the London Borough of Haringey) to 35.6% in Harlesden (Brent). By age 10-11, these differences become even more pronounced, ranging from 17.4% in Twickenham Riverside (Richmond upon Thames) to 51.9% in Camberwell Green (Southwark).<sup>10</sup>

The two maps below show at a glance the prevalence of unhealthy weight across London for children aged 4-5 (Figure 1) and 10-11 (Figure 2) at a sub-local authority level.

Figure 1: Unhealthy weight in London's children aged 4-5

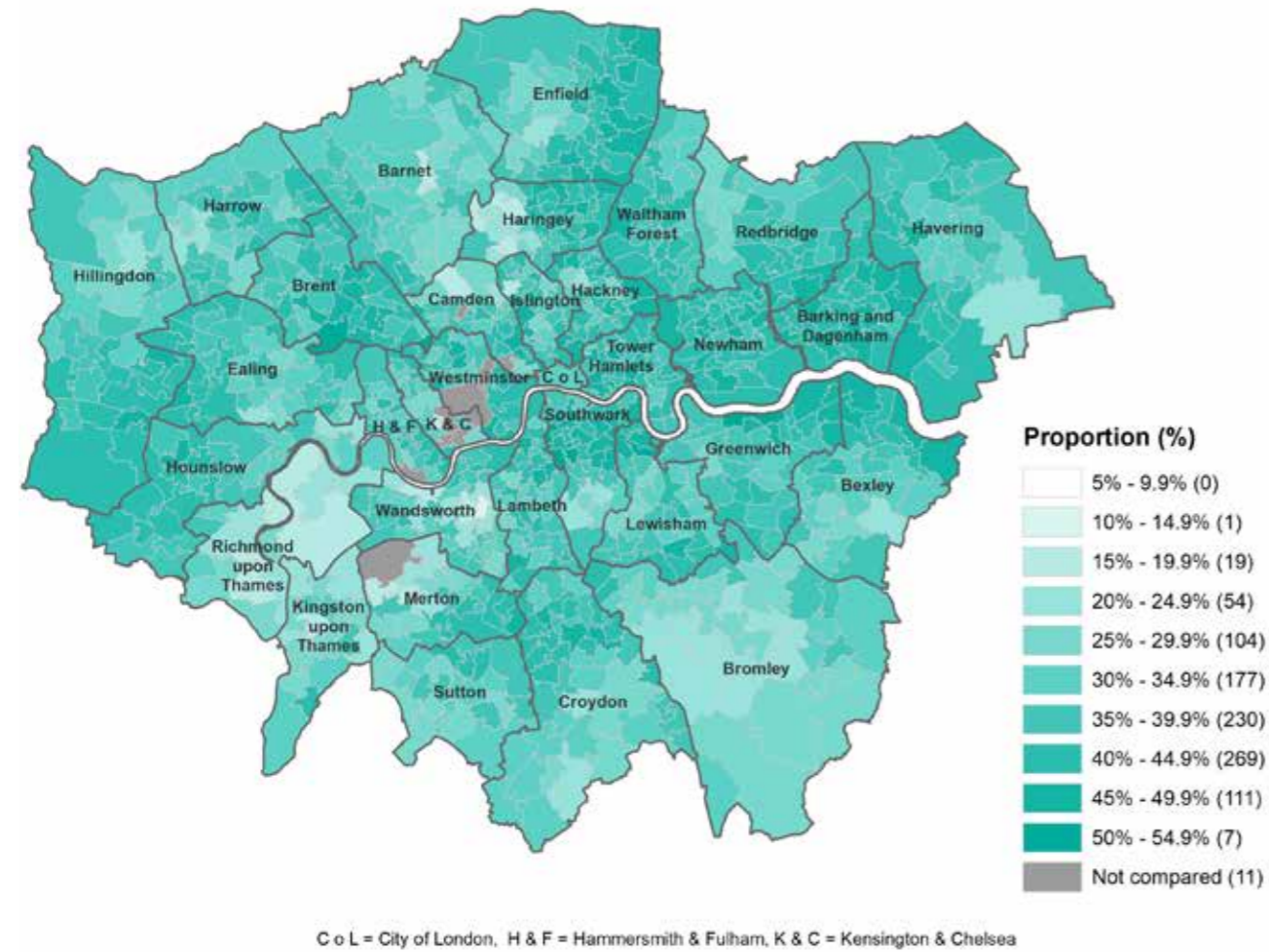


Source: NHS Digital, 2018. National Child Measurement Programme, England 2017-18



<sup>9</sup> London Health Commission 2014. Global city comparisons. Presentation available at: <https://tinyurl.com/y4x343ya>  
<sup>10</sup> PHE 2019. Fingertips Data Tool. Available at: <https://tinyurl.com/y69nh69j>

Figure 2: Unhealthy weight in London's children aged 10-11

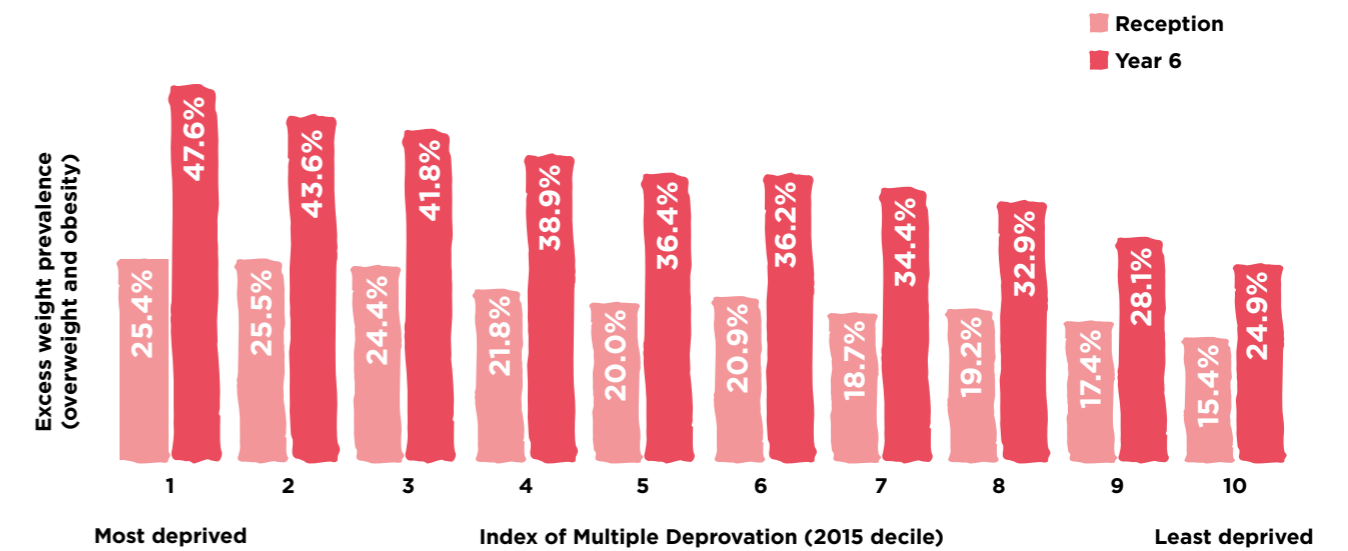


Source: NHS Digital, 2018. National Child Measurement Programme, England 2017-18

These differences in rates of unhealthy weight between neighborhoods in London are strongly associated with deprivation: the poorer the neighbourhood, the more likely children are to be affected by unhealthy weight. London has the highest inequality in unhealthy weight among both these age groups of any region of England.<sup>11</sup>

The effects of deprivation can be seen at both ages 4-5 and 10-11, but they widen with age (see Figure 3). At age 10-11, a child in one of London's poorest neighbourhoods is twice as likely to experience unhealthy weight than a child living in one of London's richest neighbourhoods (47.6% versus 24.9%).

Figure 3: Unhealthy weight in London children by deprivation



Source: NHS Digital, 2018. National Child Measurement Programme, England 2017-18

Significant differences also exist between ethnic groups in London. At age 4-5, the prevalence of unhealthy weight ranges from 14.2% among White and Asian children to 31.0% among black African children. While overall rates rise for all children by age 10-11 irrespective of ethnicity, differences remain starkly apparent, ranging from 27.1% in White and Asian children to 46.5% in black African children.



<sup>11</sup> PHE 2019. NCMP and child obesity profile: slope index of inequality data update; May 2019. Available at: <https://tinyurl.com/y45kygh>

## WHAT'S CHANGING?

In London overall rates of unhealthy weight in children have changed over time. In 2006/7 (the first year in which measurements were taken as part of the UK's National Child Measurement Programme), the rate of London's 10–11 year olds experiencing unhealthy weight was 36%. Today, that figure is 38%.

The biggest increases in the past five years are seen in those neighbourhoods that already had the highest rates. Since 2006/7, Camberwell Green (Southwark) and Mayfield (Redbridge) have seen dramatic increases of over 10%. As a result, today they are home to 48.9% and 51.9% of children, respectively, experiencing unhealthy weight. And overall, inequalities between children aged 10–11 at high and low levels of deprivation are widening.<sup>12</sup>

The good news is that we have seen improvements in overall rates for reception-aged children in London, with a decrease from 23% to 22% since the beginning of the measurement programme in 2006/7. This is not the case across all of London, with specific neighbourhoods such as Queen's Park and Brondesbury Park (Brent) seeing an increase in the number of children experiencing unhealthy weight by over 10%. And although inequality in reception is higher than anywhere else in England, London is the only region not showing a statistically significant increase in inequality among children aged 6–7 since 2006/7.<sup>13</sup>

## How trends are measured

London-level trends are measured as a Public Health Outcomes Framework (PHOF) trend evaluation in which at least the last five individual year data points are evaluated to determine if there is a significant trend, and then the direction is interpreted.<sup>14</sup>

Neighbourhood (MSOA) trends are based on the comparison of pooled measurements, from 2010/11 to 2012/13 and 2015/16 to 2017/18, at a 95% significance level).

## SUMMARY

The number of London's children growing up with an unhealthy weight is alarming high. A disproportionate amount of this burden is concentrated in economically disadvantaged families across London. Given the many negative, short and long-term consequences of an unhealthy weight, the London Child Obesity Taskforce is committed to transforming London so that every child has every chance to grow up a healthy weight.



<sup>12</sup> PHE 2019. NCMP and child obesity profile: slope index of inequality data update; May 2019. Available at: <https://tinyurl.com/y45kygh>  
<sup>13</sup> PHE 2019. NCMP and child obesity profile: slope index of inequality data update; May 2019. Available at: <https://tinyurl.com/y45kyghq>  
<sup>14</sup> For further guidance, see PHE 2017. Technical guide: fingertips trend markers. London, PHE

