



Child weight data factsheet

Key points:

- obesity among 2–10 year olds (averaged over the latest three years, 2011 to 2013) is around 12% and for 11–15 year olds is around 20%, according to the Health Survey for England (HSE) (Tables 1 and 2)
- the HSE reports a steady increase in prevalence of obesity among boys and girls aged 2–15 years from 12% in 1995 up to a peak of 19% in 2004 to 2005 and an apparent stabilisation since then at around 15–16% (Figure 1)
- the 2013/14 National Child Measurement Programme (NCMP) data showed that obesity prevalence was 9% among Reception children (age 4–5) and 19% among Year 6 children (age 10–11) (Table 3)
- analysis of NCMP data from 2006/07 to 2013/14 shows a downward trend in obesity prevalence among boys in Reception, while prevalence among girls of this age appears to be relatively stable over time. Obesity prevalence among boys and girls in Year 6 shows an upward trend (Figure 2)
- the pattern of change in body mass index (BMI) varies with age. Compared to the 1990 baseline, Reception year children had slightly higher BMIs in 2013/14, while the shape of the distribution remained the same, however among Year 6 children the distribution is skewed, with many more children having higher BMIs (Figures 3 and 4)
- obesity prevalence shows strong links with deprivation. As deprivation rises so does the prevalence of obesity for both Reception and Year 6 children (Figure 5)
- there is variation in obesity prevalence by ethnic group for both Reception and Year 6 children. Boys in Year 6 from all minority groups are more likely to be obese than White British boys; for girls in Year 6, obesity prevalence is especially high for those from Black African and Black Other ethnic groups. Some of these differences may be due to the influence of factors such as deprivation and possibly physical differences such as height (Figures 6 and 7)

Current Figures

Health Survey for England (HSE) figures show that the prevalence of obesity in children aged 2–10 years (averaged over the latest three years) is around 12%; the prevalence of overweight including obesity is around 25%. The year to year variation in overweight and obesity prevalence is likely to be due to the small sample size in the HSE. (In 2013 the weighted sample consisted of 887 2–10 year olds and 530 11–15 year olds).

Table 1. Prevalence of overweight and obesity among children aged 2–10 years

	2011 (%)	2012 (%)	2013 (%)
All children			
Overweight	11.9	12.8	13.2
Obese	13.9	10.6	12.4
Overweight including obese	25.8	23.4	25.6
Boys			
Overweight	14.9	13.1	13.6
Obese	12.4	10.8	12.8
Overweight including obese	27.4	24.0	26.4
Girls			
Overweight	8.7	12.5	12.8
Obese	15.5	10.3	12.0
Overweight including obese	24.3	22.8	24.8

Source: Health Survey for England

Table 2 shows that the prevalence of obesity in 11–15 year olds from the latest three years of HSE data is around 20% and the prevalence of overweight and obesity is around 36%.

Table 2. Prevalence of overweight and obesity among children aged 11–15 years

	2011 (%)	2012 (%)	2013 (%)
All children			
Overweight	16.8	16.4	16.0
Obese	20.2	18.7	19.9
Overweight including obese	37.1	35.2	35.9
Boys			
Overweight	14.6	15.0	15.2
Obese	23.8	19.1	20.4
Overweight including obese	38.4	34.0	35.6
Girls			
Overweight	19.2	18.0	16.9
Obese	16.5	18.7	19.4
Overweight including obese	35.7	36.7	36.3

Source: Health Survey for England

According to National Child Measurement Programme (NCMP) data, the prevalence of child obesity and overweight for children in Reception remained stable between 2011/12 and 2013/14. Around 9% of children in Reception are classified as obese compared to around 19% of children in Year 6.

Table 3. Prevalence of overweight and obesity by school year

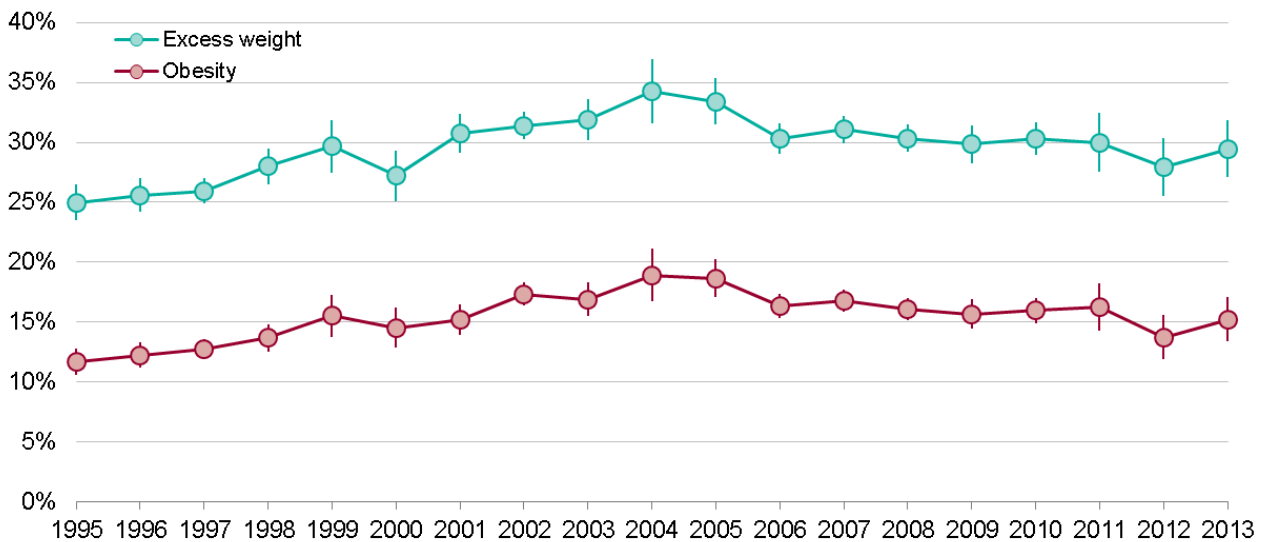
	2011/12 (%)	2012/13 (%)	2013/14 (%)
Reception (aged 4–5 years)			
Overweight	13.1	13.0	13.1
Obese	9.5	9.3	9.5
Overweight including obese	22.6	22.2	22.5
Year 6 (aged 10–11 years)			
Overweight	14.7	14.4	14.4
Obese	19.2	18.9	19.1
Overweight including obese	33.9	33.3	33.5

Source: National Child Measurement Programme

Trends

The HSE provides data from 1995 onwards and can therefore demonstrate trends in child weight status. Figure 1 shows the prevalence of obesity and excess weight (overweight including obesity) among children aged 2–15 years from 1995 to 2013.

Figure 1. Excess weight and obesity prevalence among children aged 2–15 years, 1995 to 2013



Source: Health Survey for England

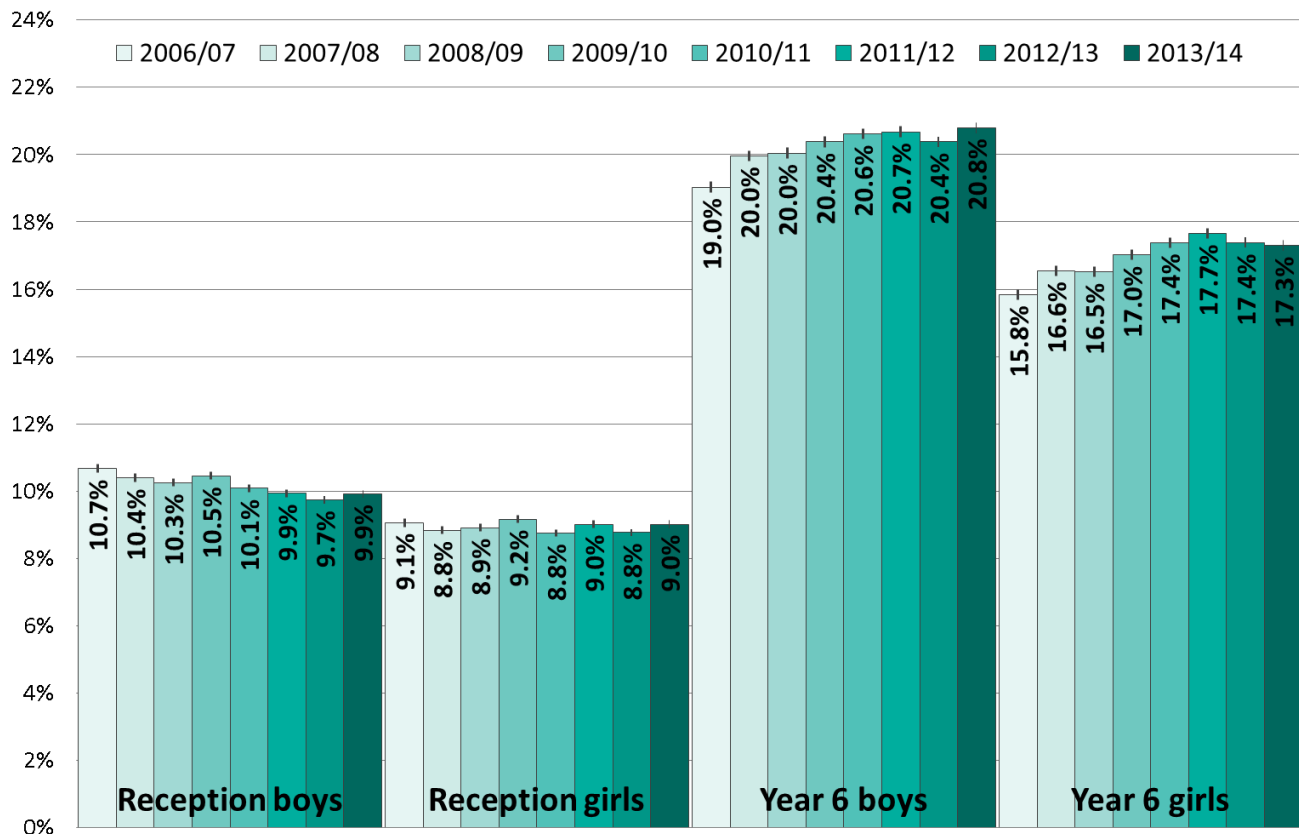
Since 1995 there has been an increase in the prevalence of obesity among boys and girls aged 2–15 years. Figure 1 shows that there has not been a consistent trend over that time, with a steady increase in prevalence from 12% in 1995 up to a peak of 19% in 2004 to 2005 and an apparent stabilisation since then at around 15–16%.

Although indications are that there has been a levelling off in prevalence of child obesity in recent years, it is still too early to be certain that this represents a long-term change in the trend. It is important to exercise caution in interpreting these data due to the relatively small sample sizes and until subsequent data give a more statistically robust indication of any change.

Figure 2 shows obesity prevalence in boys and girls in Reception and Year 6 from 2006/07 to 2013/14. Further analysis looking at NCMP trends¹ shows a downward trend in obesity prevalence among boys in Reception while the trend among girls of this age appears to be relatively stable over time. Obesity prevalence among boys and girls in Year 6 shows an upward trend, with a higher average increase in Year 6 girls than boys. The addition of further years of NCMP data will make it increasingly possible to detect long-term patterns in the trend.

¹ Changes in children's body mass index between 2006/07 and 2013/14: NCMP

Figure 2. Prevalence of obesity 2006/07 to 2013/14 by school year and sex



Source: National Child Measurement Programme

BMI distribution

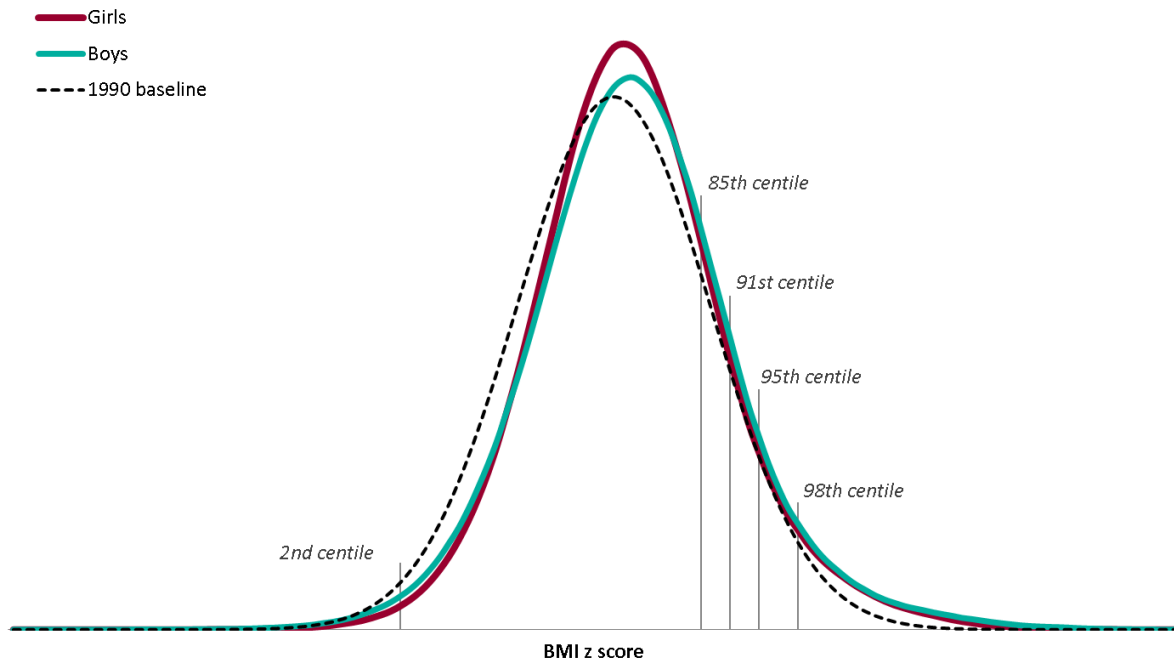
Using data from the NCMP, Figure 3 compares children in Reception in 2013/14 with children from the British 1990 growth reference – the baseline population used to classify children’s BMI.

For both boys and girls, the whole curve has shifted slightly to the right but the shape of the distribution is very similar. This shows that the rise in BMI since 1990 is spread across the whole population: that is, on average all children are slightly heavier.

Figure 4 shows a different pattern for children in Year 6. Here the shape of the distribution has changed quite considerably since the 1990 baseline. The curve is now more skewed with many more children at the right hand side of the chart, with higher BMIs above the 85th centile.

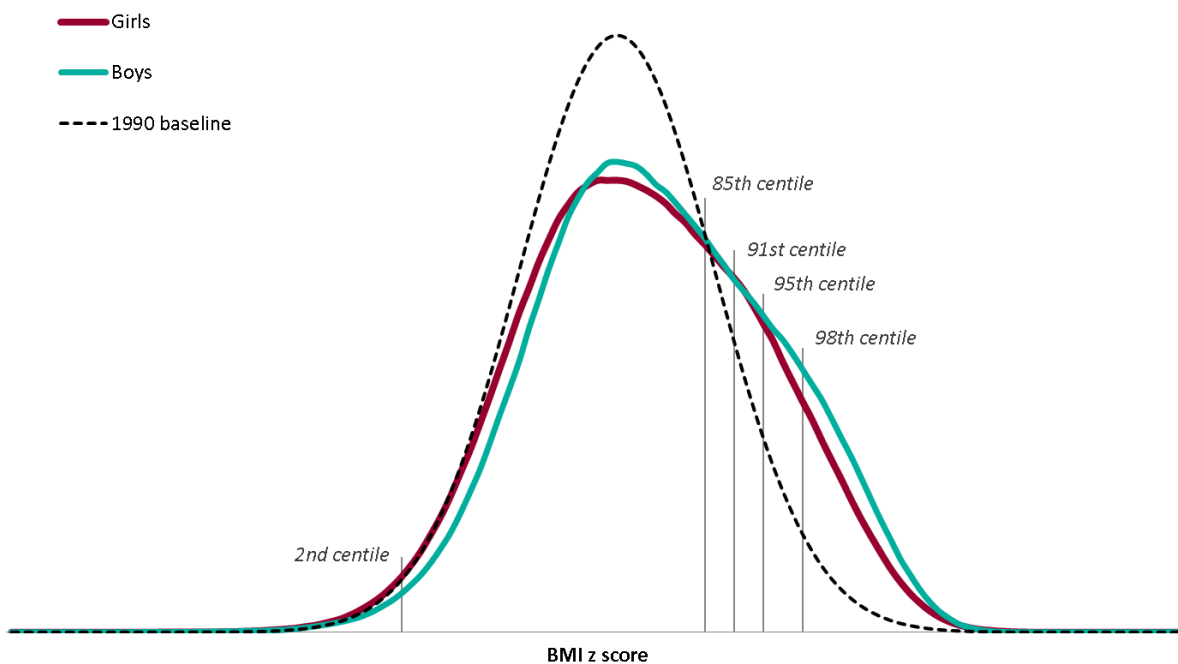
These findings suggest that while obesity prevalence has increased in both Reception and Year 6 since the 1990 baseline, the pattern of change across the whole population differs. In the older age group, there are not only more overweight and obese children, but these children are now likely to have a higher BMI (adjusted for age) than was the case in 1990.

Figure 3. Distribution of BMI for Reception children (aged 4–5 years) 2013/14, compared to the 1990 baseline population



Source: National Child Measurement Programme
 BMI z score is a measure of BMI adjusted for age

Figure 4. Distribution of BMI for Year 6 children (aged 10–11 years) 2013/14, compared to the 1990 baseline population

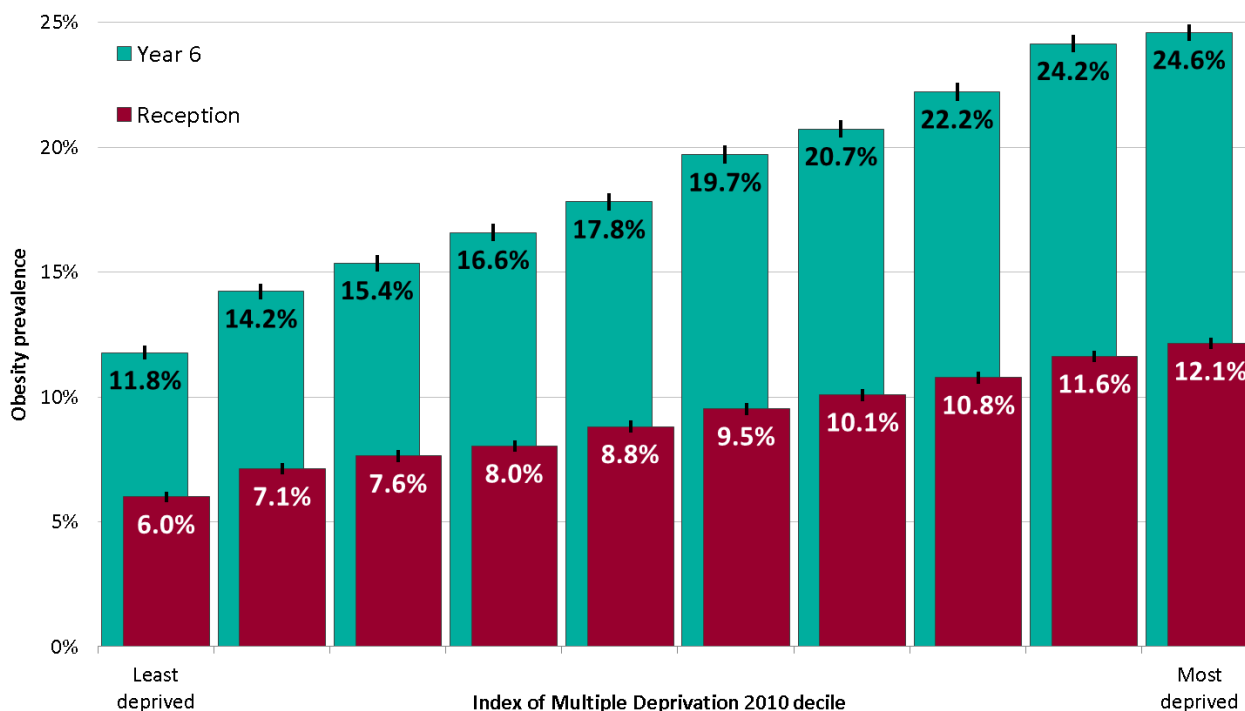


Source: National Child Measurement Programme
 BMI z score is a measure of BMI adjusted for age

Obesity and deprivation

Obesity prevalence is strongly correlated with deprivation and is highest in the most deprived areas. Figure 5 shows a steady rise in obesity prevalence with increasing deprivation for both Reception and Year 6 children. Obesity prevalence of children in the most deprived decile is approximately twice that of children in the least deprived decile.

Figure 5. Prevalence of obesity by deprivation decile in Reception (aged 4–5 years) and Year 6 (aged 10–11 years) children, 2013/14



Source: National Child Measurement Programme

For this chart the children measured in each school year have been divided into ten groups (deciles) according to the 2010 Index of Multiple Deprivation (IMD) score of where they live. Obesity prevalence figures have then been calculated for each group.

Obesity and ethnicity

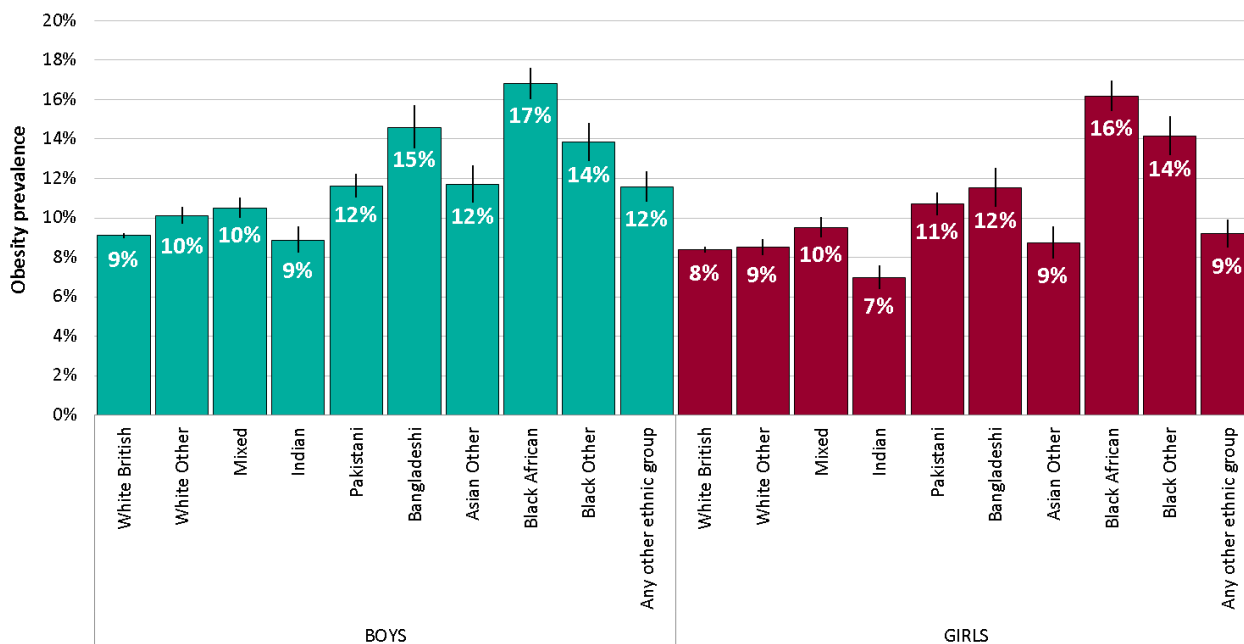
Figures 6 and 7 present obesity data by ethnic group, school year, and sex. They show considerable differences in obesity prevalence between different ethnic groups and between sexes and school years.

Reception children from Indian and Mixed ethnic groups have a similar prevalence of obesity to White ethnic groups. Obesity prevalence among boys in this age group is highest in the Black African, Bangladeshi, and Black Other groups. Among girls in Reception obesity prevalence is highest among those from Black African and Black Other ethnic groups.

Boys in Year 6 from all minority ethnic groups are more likely to be obese than White British boys, with boys of Bangladeshi, Asian Other, Pakistani and Any Other ethnic group having the highest prevalence. For girls in Year 6 obesity prevalence is highest for children from Black African and Black Other ethnic groups.

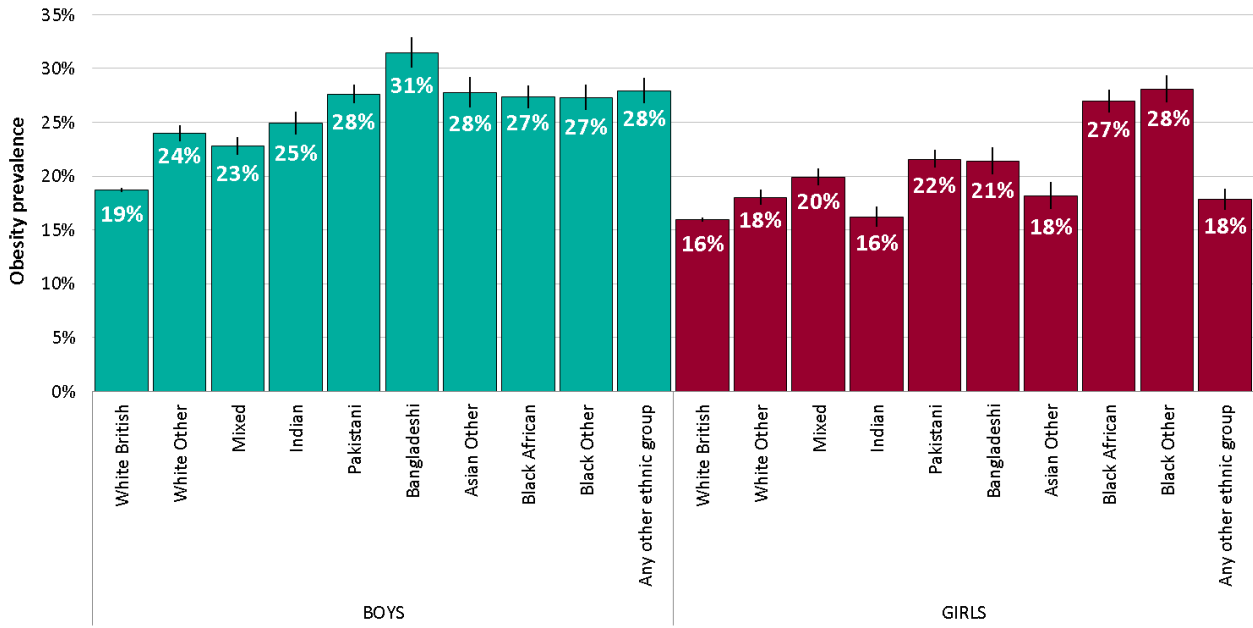
The prevalence of obesity among boys in Year 6 from some Asian groups, particularly those of Bangladeshi, Asian Other and Pakistani ethnicity, is as high or higher than that for the Black African and Black Other ethnic groups. Some of these differences may be due to the influence of factors such as deprivation and possibly in part to physical differences such as height.

Figure 6. Prevalence of obesity by ethnic group among children in Reception (aged 4 –5 years), 2013/14



Source: National Child Measurement Programme

Figure 7. Prevalence of obesity by ethnic group among children in Year 6 (aged 10– 11 years), 2013/14



Source: National Child Measurement Programme

Data sources

Health Survey for England

www.hscic.gov.uk/article/3741/Health-Survey-for-England-Health-social-care-and-lifestyles

The HSE is a cross-sectional survey which samples a representative proportion of the population.

Timing of data collection: the survey is conducted annually. Data for some of the time series are available from 1993 onwards. Certain years include 'boost samples' which focus on specific population groups: eg 2004 included a boost of people from minority ethnic groups.

Date of next release: the report on the HSE 2014 should be published online in December 2015. The data should be available from the UK Data Archive in the spring following publication of the report.

Health Survey for England, 1993–2013. Joint Health Surveys Unit (Nat Cen Social Research & UCL) 2015. The Health and Social Care Information Centre: Leeds. Copyright © 2015, re-used with the permission of The Health and Social Care Information Centre. All rights reserved.

National Child Measurement Programme

www.hscic.gov.uk/ncmp

The NCMP is an annual programme that measures the height and weight of children in Reception (aged 4–5 years) and Year 6 (aged 10–11 years) in England. Although the NCMP only covers certain age groups, it includes the majority of children in those year groups. The participation rate in 2013/14 was 94%. The NCMP dataset is compliant with the Code of Practice for Official Statistics and has therefore been accredited with 'National Statistic' status.

Timing of data collection: the NCMP was established in 2006. Data are collected annually during the school year.

Date of next release: the Health and Social Care Information Centre will report NCMP data for the 2014/15 school year in November 2015.

Statistics on Obesity, Physical Activity and Diet: England, 2015

www.hscic.gov.uk/catalogue/PUB16988

Index of Multiple Deprivation 2010

www.gov.uk/government/publications/english-indices-of-deprivation-2010

Definitions

Body mass index (BMI) classification in children

BMI is a measure of weight status that adjusts for height. BMI is a person's weight in kilograms divided by the square of their height in metres. The British 1990 growth reference (UK90) for BMI is used to determine weight status according to a child's age and sex. Children whose BMI is between the 85th and less than the 95th centile are classified as overweight and those at, or above the 95th centile are classified as obese. This definition is commonly used in the UK for population monitoring rather than for clinical purposes.

For clinical (individual) assessment, children whose BMI is between the 91st and less than the 98th centile are classified as overweight and those at or above the 98th centile are classified as obese.

Confidence intervals on the charts

Error bars (I) on the charts are 95% confidence intervals. These indicate the level of uncertainty about each value on the chart. Wider intervals mean greater uncertainty.

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