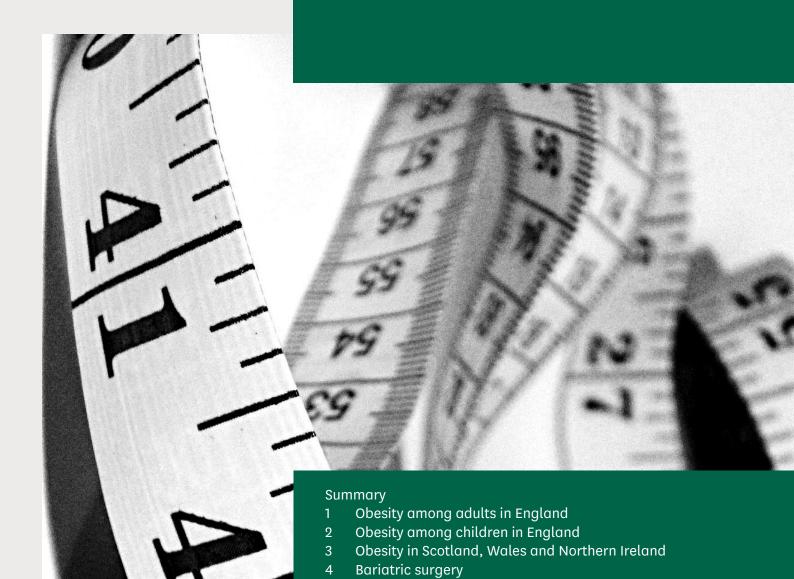


Research Briefing

By Sonja Stiebahl 10 February 2025

Obesity statistics



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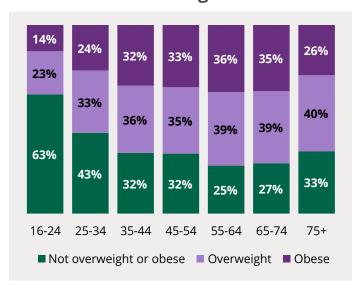
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Obesity in England: summary

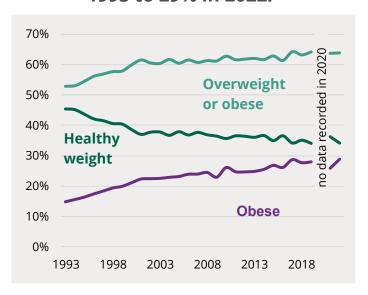
In England, from age 25, men are more likely than women to have a higher than normal body mass index (BMI)



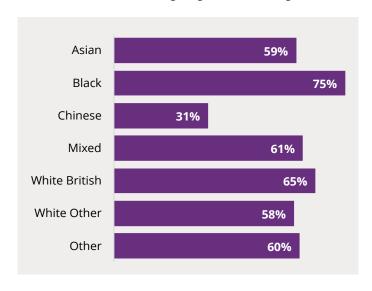
Over two thirds of those aged 35 and over are overweight or obese.



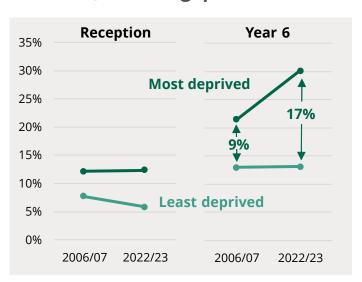
Obesity levels increased from 15% in 1993 to 29% in 2022.



Prevalence of excess weight varies substantially by ethnicity.



Deprived children are more likely to be obese, and the gap has widened.

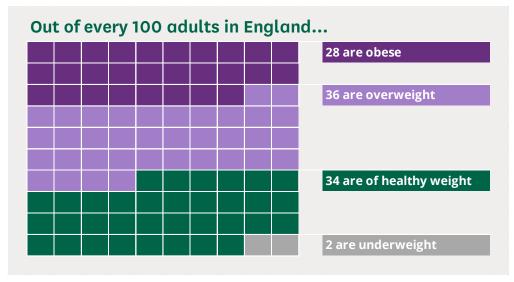


This briefing also contains information on: adult and child obesity rates in Scotland, Wales, and Northern Ireland; bariatric surgery for obesity; and international comparisons.

1 Obesity among adults in England

The <u>Health Survey for England</u>, published by NHS Digital, provides estimates of obesity levels based on the body mass index (BMI) of a representative sample of people aged 16+. The survey is usually based on measured data, however, in 2021 it was based on adjusted self-reported height and weight data.¹

In the 2022 survey, 28% of adults in England were obese and a further 36% were overweight, making a total of 64% who were either overweight or obese. Men were more likely than women to be overweight or obese (67% of men compared with 61% of women).



Source: NHS Digital, Health Survey for England 2022, Adult and children's overweight and obesity tables

Measures of obesity and excess weight

The most widely used measure of obesity is the Body Mass Index (BMI), defined as weight divided by the square of height (kg/m²). A person is classified as 'obese' if their BMI is 30 or higher, and 'overweight' if their BMI is between 25 and 30. A BMI of 40 or more is often known as 'morbid obesity'. 'Excess weight' is an umbrella term for BMI over 25, ie either overweight or obese.

BMI is not always definitive and may not be appropriate for all groups, and sometimes other measures are used. These include waist circumference and the waist-hip ratio. See our briefing paper <u>Obesity</u> for a wider overview of definitions and policy.

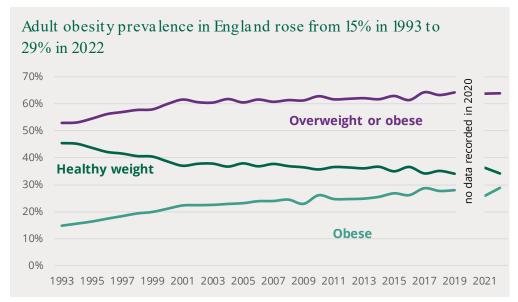
¹ NHS Digital, <u>Health Survey for England 2021</u>

1.1 Trends over time

There was a clear increase in the proportion of overweight or obese adults between 1993 and 2001. Since then, there have only been small changes, although the proportion has risen slightly over the past decade. Some annual fluctuation in the data is likely to be because the data is based on a survey of a sample of the population.

Between 1993 and 2022 the proportion of adults in England who are obese rose from 14.9% to 28.9%, while the proportion who were either overweight or obese rose from 52.9% to 63.9%.

The chart below shows these trends.

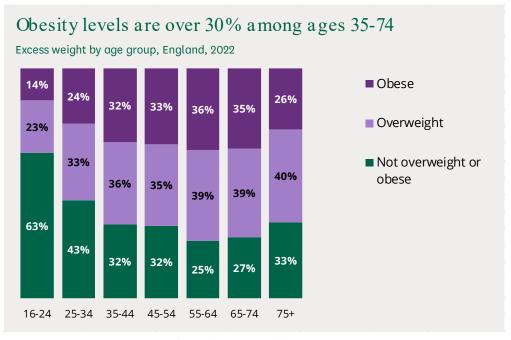


Source: NHS Digital, <u>Health Survey for England 2022</u>, Adult and Children's overweight and obesity tables

1.2 Age and sex differences

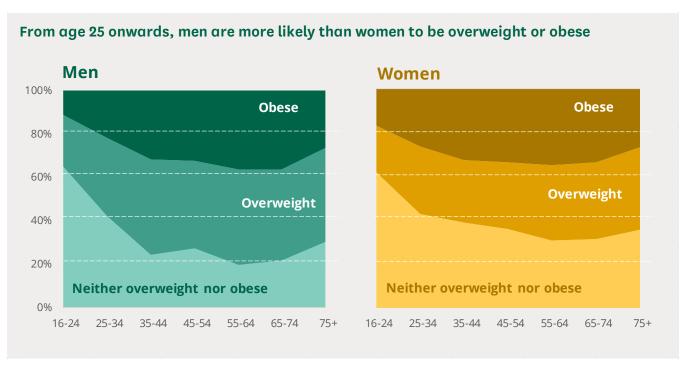
In 2022, people aged 55 to 74 were more likely to be overweight or obese than other age groups. Prevalence of excess weight (ie the proportion who were either overweight or obese) was above 70% in these age groups.

The adult age group least likely to be overweight or obese was 16 to 24-year-olds (27%). This self-reported data is a substantial decline from the last measured data from 2019, when 37% of 16 to 24-year-olds were overweight or obese.



Source: NHS Digital, Health Survey for England 2022, Table 1

As noted above, prevalence of excess weight (being either overweight or obese) is higher among men than among women. However, prevalence of obesity is slightly higher among women (29.6%) than men (28.1%), while more men were overweight but not obese (43.3%) than women (32.5%). These proportions vary by age, with higher rates of overweight and obesity in middle age, as the next charts show.

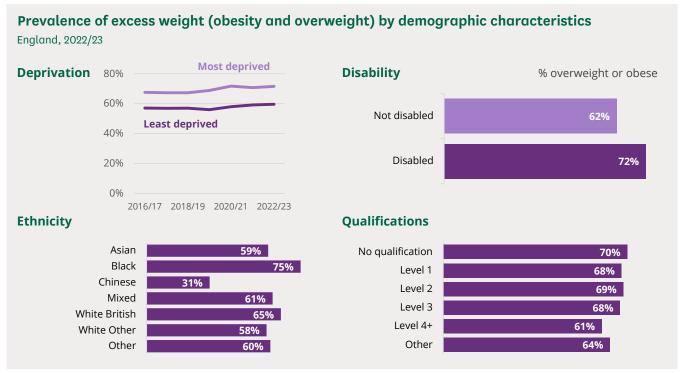


Source: NHS Digital, Health Survey for England 2022, Table 1

1.3 Other inequalities

The charts below show inequalities data from the Active Lives Survey.² The results show how excess weight in adults (the percentage either overweight or obese) varies between social groups:

- **Deprivation**: In the most deprived areas in England, prevalence of excess weight is 12 percentage points higher than the least deprived areas
- **Disability**: Among people with disabilities, excess weight is 10 percentage points higher than among those without disabilities.
- **Ethnicity**: People in Black ethnic groups have the highest rates of excess weight.
- **Education**: Among people with no qualifications, rates of excess weight are 9 percentage points higher than among people with level 4 qualifications or higher (a degree).



Source: Sport England Active Lives Survey data, via OHID

² Sport England, Active Lives Survey data 2022/23, extracted from OHID Health Profiles

1.4 Variation in different parts of England

The Active Lives Survey estimates how the proportion of adults that are overweight or obese varies in different local authorities.³ The most recent available survey data is from 2022/23. It shows that levels of excess weight are estimated to be higher in the North and Midlands than the South. The **population-based map on the following page** and the tables that follow show data for each local authority in England.

Because these local authority estimates are based on a survey, there is some uncertainty around the exact levels of overweight and obesity. For instance, the central estimate for Durham is 77.7%, but because it is based on a sample of the population, this means we can only say with relative certainty that the true prevalence value is somewhere between 73.6% and 81.6% (labelled on the table as "Lower CI" and "Upper CI", where "CI" stands for "confidence intervals"). So it is not certain that Thurrock had the highest prevalence in England and more broadly, you should be cautious when interpreting small differences between areas.

For example, Stoke-on-Trent's lower and upper CIs are 69.5% and 78.0% respectively, which overlap with Durham's because Durham's lower CI is below Stoke-on-Trent's upper CI. So the survey result does not tell us for sure which of Durham and Stoke-on-Trent has higher prevalence of excess weight.

Adult excess weight by local authority, 2022/23 High percentage overweight or obese Low percentage overweight or obese Survey Survey **Local Authority** Lower CI Upper CI **Local Authority** Lower CI Upper CI estimate estimate County Durham 77.7% 73.6% 81.6% Hammersmith and Fulham 53.0% 48.5% 57.5% Wirral 76.3% Camden 72.1% 80.5% 52.8% 47.8% 57.5% Cannock Chase 76.0% Harrow 71.8% 80.0% 52.8% 47.6% 57.9% Gosport 74.6% 70.2% 78.7% Kingston upon Thames 52.7% 47.8% 57.5% Knowsley 73.9% 69.6% 78.0% Elmbridge 51.0% 46.3% 55.6% Stoke-on-Trent 73.8% Cambridge 50.4% 69.5% 78.0% 45.8% 55.1% **Tamworth** 73.8% Islington 50.1% 69.4% 78.1% 45.2% 54.8% Rotherham 73.7% 77.8% Wandsworth 49.5% 54.2% 69.3% 44.7% Chesterfield Haringey 53.3% 73.7% 69.3% 77.8% 48.5% 43.8% Rochdale 73.3% 70.1% 76.5% Westminster 47.9% 42.9% 52.9% Ashfield 73.3% **Tower Hamlets** 45.9% 68.9% 77.6% 41.0% 50.9% Bolsover 73.1% 77.4% Kensington and Chelsea 45.8% 40.9% 50.6% 68.6%

CI = "confidence interval". Please see above for an explanation.

Source: Sport England Active Lives Survey data, via OHID

³ Sport England, Active Lives Survey data 2022/23, extracted from OHID Health Profiles

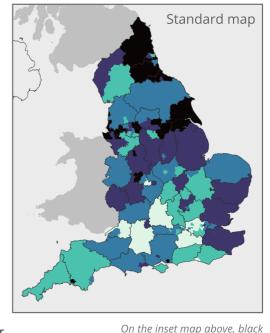
Excess weight in England: adults, 2022/23

How to read this population-based map

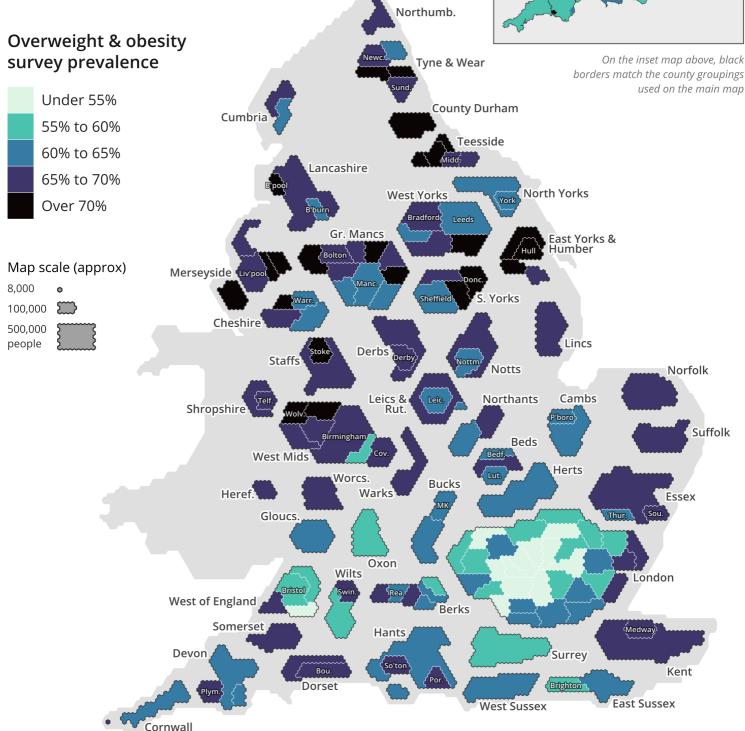
On this map, local authority areas are approximately scaled in size according to their populations. Areas are grouped by ceremonial counties, conurbations and other recognisable sub-national areas. These groups include unitary authorities (e.g. Nottingham City UA inside the Notts group) and don't all reflect current local gov structures.

Lines between adjacent areas represent local authority boundaries. Extra labels are provided for large towns & cities to help you locate particular cities and towns (e.g. 'Lut.' = Luton). Grey shading between county groups doesn't represent data and serve only as a background.

On traditional maps (such as the inset, right), sparsely-populated rural areas are visually overrepresented since they appear much larger than densely-populated urban areas. Since rural and urban areas can be very different to one another, this means that traditional maps don't always give a full picture of the data when viewed on their own.



borders match the county groupings

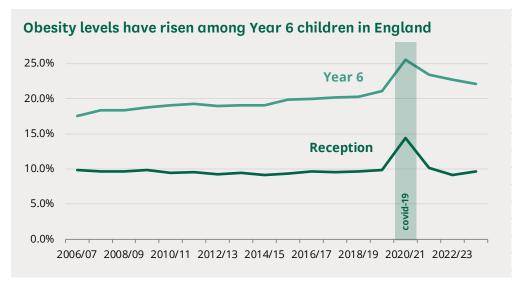


2 Obesity among children in England

The <u>National Child Measurement Programme</u> (NCMP) found that 9.6% of reception age children in England (ages 4-5) were obese in 2023/24, with a further 12.4% overweight. These proportions were higher among year 6 children (age 10-11), with 22.1% being obese and 13.8% overweight.

The 2020/21 edition of the survey, which was carried out as a sample because of the Covid-19 pandemic, found large increases compared to previous years, with obesity levels at 14.4% in reception and 25.5% in year 6.

Between 2021/22 and 2023/24 survey prevalence was lower, but the figures were still higher for year 6 children than in previous years.



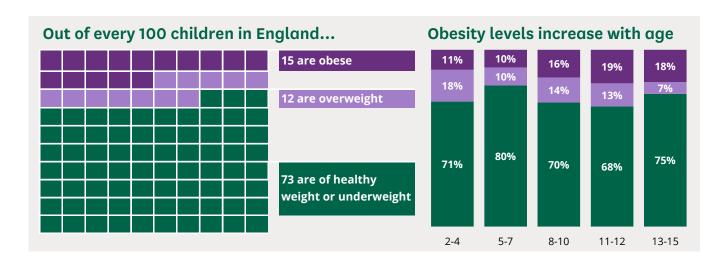
Source: National Child Measurement Programme, England, 2023/24

In both age groups, boys are slightly more likely than girls to be obese. This difference is less than one percentage point at ages 4-5 but rises to five percentage points among ages 10-11. 4

Overall, 26.8% of children aged 2 to 15 were overweight or obese in 2022/23.5 The chart below shows levels of excess weight by age group.

Note that these categories are not directly comparable to those used for adults, since measuring BMI and obesity for children is more complex than for adults. In the NCMP, obese is defined as having a BMI in the 95th percentile or higher of the <u>British 1990 growth reference</u>.

⁵ Health Survey for England, 2022/23, Table 17



Source: NHS Digital, National Child Measurement Programme 2023/24, Tables 1a and 1b; Health Survey for England, 2022/23, Table 17

The tables below, and the population-based maps on the following two pages, analyse the data by local authority. Please see page 9 for information on how to interpret confidence intervals (the "Upper/Lower CI" columns in these tables) and differences between areas.

Child excess weight by local authority, age 4 to 5 England, 2023/24									
High percentage overweight or obese				Low percentage overweight or obese					
Local Authority	Survey estimate	Lower CI	Upper Cl	Local Authority	Survey estimate	Lower Cl	Upper Cl		
Knowsley	29.6%	27.7%	31.8%	East Hertfordshire	15.8%	14.1%	17.7%		
Newcastle upon Tyne	27.8%	26.2%	29.6%	Exeter	15.7%	13.6%	18.2%		
Blackpool	27.4%	25.3%	29.8%	Watford	15.6%	13.8%	17.9%		
Hyndburn	27.3%	24.6%	30.3%	Mole Valley	15.5%	13.0%	18.2%		
Burnley	27.3%	24.7%	30.0%	Hart	15.3%	13.3%	17.8%		
South Tyneside	27.3%	25.1%	29.5%	Richmond upon Thames	15.0%	13.4%	16.7%		
Darlington	26.7%	24.3%	29.3%	Waverley	14.9%	13.0%	17.0%		
Wolverhampton	26.6%	25.1%	28.1%	Oadby and Wigston	14.8%	12.1%	17.9%		
Portsmouth	26.3%	24.6%	28.3%	Uttlesford	14.7%	12.7%	17.0%		
Bolsover	26.3%	23.2%	29.3%	South Cambridgeshire	14.7%	12.9%	16.3%		
Lincoln	26.1%	23.2%	28.9%	Epsom and Ewell	14.5%	12.4%	17.1%		
County Durham	26.1%	24.8%	27.3%	Wokingham	14.4%	13.0%	16.2%		

Source: NHS Digital, National Child Measurement Programme 2023/24, Tables 3a_R_UTLA and 3a_6_UTLA

Child excess weight by local authority, age 10 to 11

England, 2023/24

High percentage overweight or obese				Low percentage overweight or obese			
Local Authority	Survey estimate	Lower CI	Upper Cl	Local Authority	Survey estimate	Lower Cl	Upper Cl
Knowsley	47.1%	44.9%	49.4%	Epsom and Ewell	25.9%	22.6%	28.9%
Newham	45.5%	44.0%	46.9%	Cotswold	25.8%	22.7%	28.7%
Barking and Dagenham	45.4%	43.7%	47.0%	Mid Sussex	25.5%	23.5%	27.8%
Sandwell	45.2%	43.7%	46.6%	East Hertfordshire	25.5%	23.3%	27.6%
Wolverhampton	44.8%	43.2%	46.5%	South Cambridgeshire	25.4%	23.5%	27.4%
Manchester	44.2%	43.0%	45.4%	Reigate and Banstead	24.4%	22.1%	27.0%
Cannock Chase	43.8%	40.9%	47.0%	St Albans	24.3%	22.4%	26.3%
Westminster	43.7%	40.5%	46.5%	Guildford	23.3%	20.9%	26.0%
Nottingham	43.6%	42.0%	45.2%	Richmond upon Thames	23.3%	21.5%	25.2%
Walsall	43.0%	41.3%	44.5%	Elmbridge	21.3%	18.6%	24.0%
Enfield	42.9%	41.4%	44.4%	Waverley	20.4%	18.1%	22.9%
Liverpool	42.8%	41.5%	44.2%	Mole Valley	19.7%	16.5%	22.7%

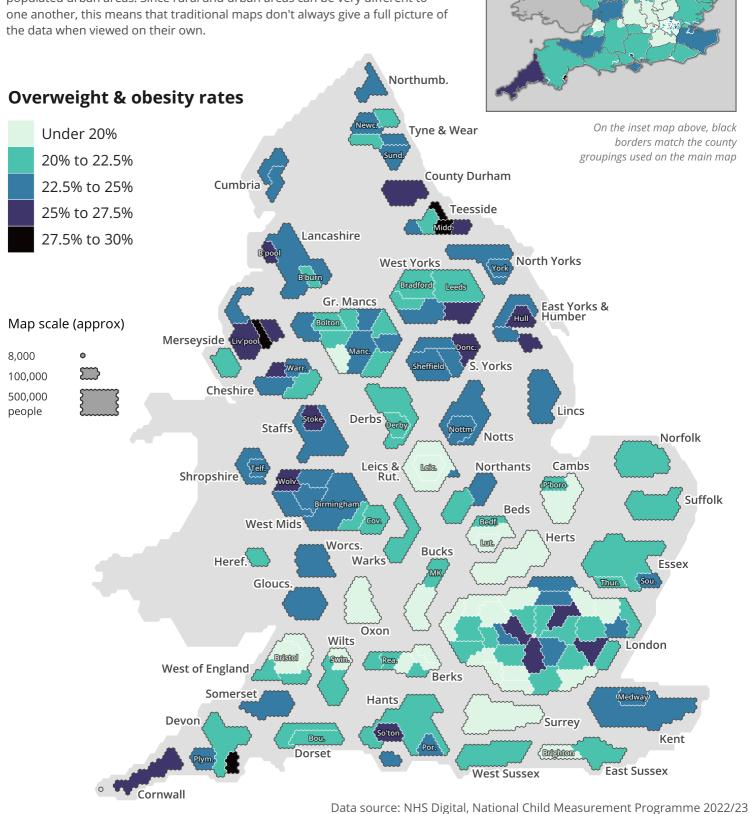
Source: NHS Digital, National Child Measurement Programme 2023/24, Tables 3a_R_UTLA and 3a_6_UTLA

Excess weight in England: ages 4-5, 2022/23

How to read this population-based map

On this map, areas are approximately scaled in size according to their total population: each small hexagon represents a population of around 8,000 people. Areas are grouped by traditional counties and other recognisable areas - these groups include unitary authorities and don't all reflect current local government structures. Lines between hexagons show local authority boundaries. Extra labels are provided for large towns & cities to help you locate particular places (e.g. 'Sou.' = Southend).

On traditional maps (such as the inset, right), sparsely-populated rural areas are visually over-represented since they appear much larger than denselypopulated urban areas. Since rural and urban areas can be very different to



Standard map

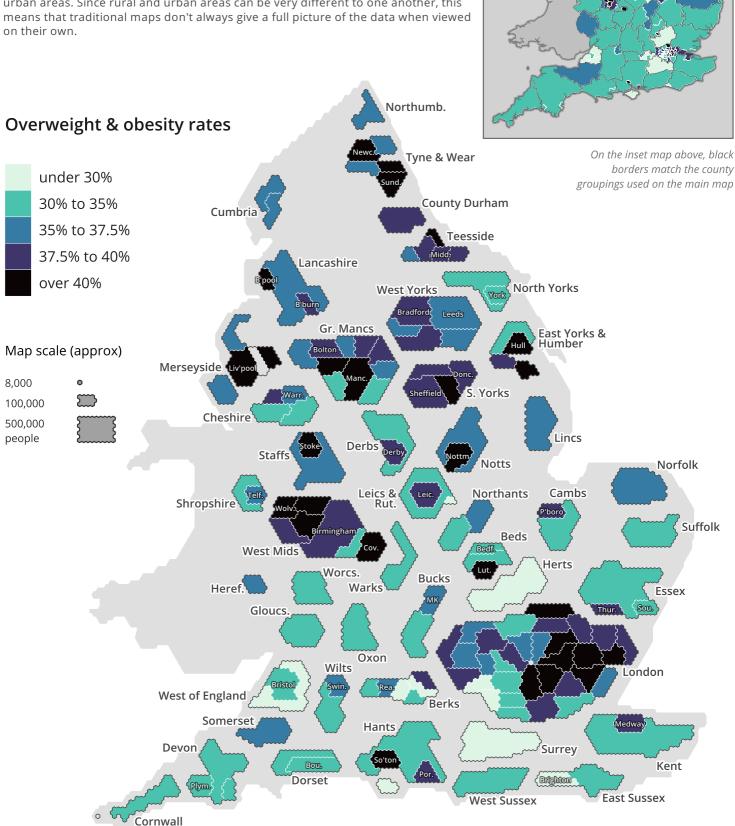
Excess weight in England: ages 10-11, 2023/24

Standard map

How to read this population-based map

On this map, areas are approximately scaled in size according to their total **population**: each small hexagon represents a population of around 8,000 people. Areas are grouped by traditional counties and other recognisable areas - these groups include unitary authorities and don't all reflect current local government structures. Lines between hexagons show local authority boundaries. Extra labels are provided for large towns & cities to help you locate particular places (e.g. 'Sou.' = Southend).

On traditional maps (such as the inset, right), sparsely-populated rural areas are visually over-represented since they appear much larger than densely-populated urban areas. Since rural and urban areas can be very different to one another, this on their own.



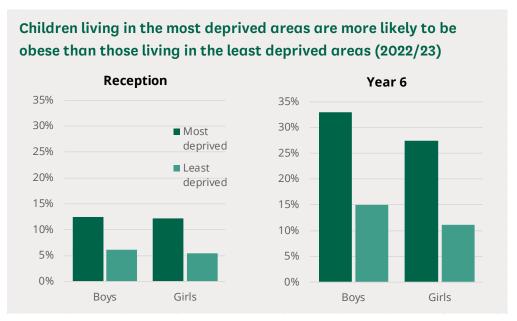
Data source: NHS Digital, National Child Measurement Programme 2023/24

Childhood obesity and deprivation

Children living in more deprived areas are substantially more likely to be obese. In 2022/23, 5.8% of children aged 4-5 living in the least deprived tenth of areas of England were obese. This compares with 12.4% of those living in the most deprived tenth of areas.

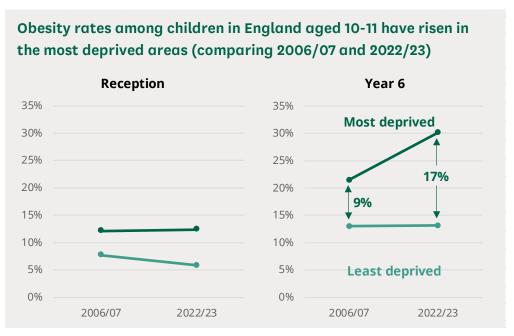
In Year 6 (ages 10-11), 13.1% of children living in the least deprived areas were obese, compared with 30.1% in the most deprived areas. In both age groups, children in the most deprived areas were approximately twice as likely to be obese. Rates of severe obesity were around four times higher in the most deprived areas.

The chart below shows differences in levels of obesity between boys and girls at reception and year 6.



Source: NHS Digital, National Child Measurement Programme 2023/24, Tables 6a_R and 6a_6

In both age groups, the obesity gap between the most deprived and least deprived areas has increased in the last 15 years. This is particularly pronounced among ages 10-11, where obesity rates in the most deprived areas have risen by nine percentage points but were almost unchanged in the least deprived areas.

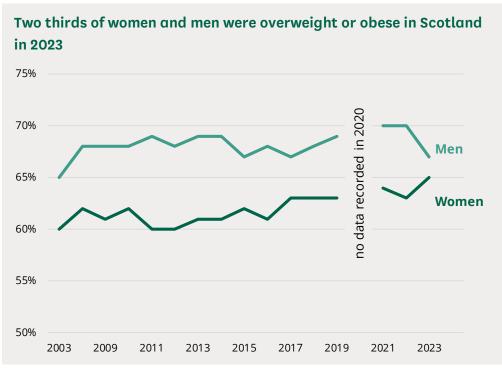


Source: NHS Digital, National Child Measurement Programme 2022/23, Table 6c

3 Obesity in Scotland, Wales and Northern Ireland

3.1 Scotland: adult obesity

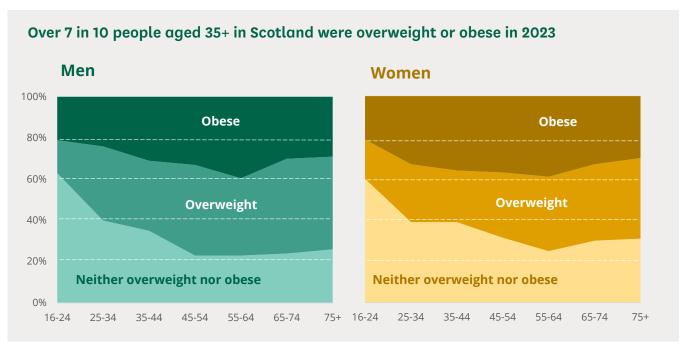
Adult obesity in Scotland is recorded as part of the <u>Scottish Health Survey</u>, published by the Scottish Government. In 2023, figures were based on adjusted self-reported height and weight measures. Almost a third (32%) of adults were obese in 2023, the highest level on record.



Source: The Scottish health survey, 2023, Table 9.1

Younger adults were less likely to be obese or overweight. Healthy weight was highest for adults aged 16-24 (57%)

In 2023, women were more likely to be obese than men, but men had a higher proportion of overall excess weight. Excess weight tended to increase with age. These trends are shown in the chart below.



Source: Scottish Health Survey 2023, Supplementary Tables, File 14 (BMI), Table WN1

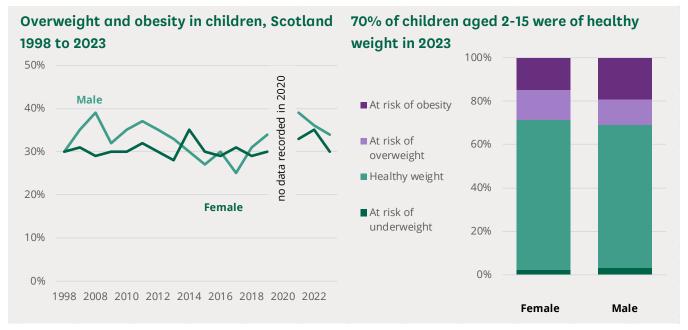
3.2 Scotland: child obesity

The Scottish Health Survey also contains information on BMI for children.⁶

The 2023 survey found that just under 1 in 5 children aged 2 to 15 were at risk of obesity. This was similar between age groups. The proportion of children at risk of overweight or obesity has remained largely the same since 1998.

Boys were more likely than girls to be at risk of obesity (19% compared to 15%).

Child obesity in this survey is classified as those who are above the 95th percentile of the 1990 UK growth reference standards.



Source: Scottish Health Survey 2023, Supplementary Tables, Table 9.4

3.3 Wales: adult obesity

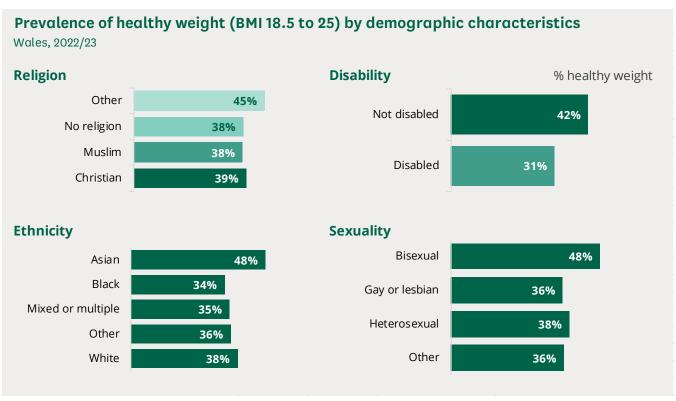
Adult obesity in Wales is recorded in the <u>National Survey for Wales</u> based on self-reported data.

In 2022/23, 27% of women and 25% of men reported being obese (BMI over 30). 65% of men were overweight or obese, compared with 57% of women.

⁶ Scottish Health Survey, <u>Supplementary Tables</u>

Obesity was highest in the 45-64 age group (31%) and lowest in those aged 16-24 and 75+ (19% and 17%, respectively).

An analysis of adult health by several demographic characteristics shows that people without disability were more likely to report being of healthy weight (42%) compared to disabled people (31%). A full breakdown by several other characteristics can be found in the chart below.



Source: Public Health Wales, National Survey for Wales, 2022/23

3.4 Wales: child obesity

The most recent comprehensive data on child obesity in Wales is from the 2022/23 Child Measurement Programme for Wales.⁷

In 2022/23, 11.4% of children aged 4-5 in Wales were obese and a further 13.4% were overweight. Children living in the most deprived areas of Wales were much more likely to be obese (13.6%) compared with those in the least deprived areas (7.8%).

There were only small differences between obesity rates for boys and girls. In the most deprived areas, 1 in 8 girls was obese, compared to 1 in 7 boys.

⁷ Public Health Wales, <u>Child Measurement Programme for Wales, 2022/23</u>

Obesity rates were estimated to be highest among children in Carmarthenshire and lowest in Monmouthshire.

Child excess weight by local authority, 4 to 5 years Wales, 2022/23									
High percentage overweight or obese				Low percentage over	weight or obe	se			
Local Authority	Survey estimate	Lower Cl	Upper CI	Local Authority	Survey estimate	Lower Cl	Upper Cl		
Carmarthenshire	30.5%	28.3%	32.7%	Torfaen	25.4%	22.8%	28.2%		
Merthyr Tydfil	29.4%	25.9%	33.1%	Flintshire	24.3%	22.2%	26.6%		
Rhondda Cynon Taf	28.2%	26.4%	30.1%	Swansea	24.3%	22.6%	26.1%		
Wrexham	28.1%	25.7%	30.6%	Gwynedd	23.7%	21.2%	26.4%		
Pembrokeshire	27.9%	25.3%	30.6%	Bridgend	23.7%	21.6%	26.1%		
Neath Port Talbot	27.5%	25.1%	29.9%	Caerphilly	23.0%	21.1%	24.9%		
Denbighshire	27.4%	24.6%	30.4%	Newport	22.1%	20.3%	24.1%		
Conwy	26.8%	24.1%	29.6%	Vale of Glamorgan	22.0%	19.8%	24.3%		
Blaenau Gwent	26.6%	23.5%	30.0%	Cardiff	20.9%	19.6%	22.3%		
Ceredigion	25.9%	22.5%	29.6%	Monmouthshire	18.6%	16.1%	21.5%		

Source: Public Health Wales, Child Measurement Programme for Wales, 2022/23

3.5 Northern Ireland: adult obesity

Data is available from the <u>Health Survey Northern Ireland</u>, but BMI questions were not asked in the 2020/21, 2021/22, and 2022/23 editions of the publication.⁸

In 2023/24, 27.6% of adults in Northern Ireland were obese, with a further 36.5% overweight. 69.0% of men were overweight or obese, compared with 59.5% of women.

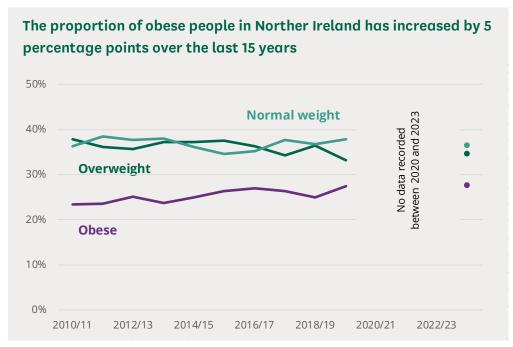
A breakdown by age was not possible in 2023/24 due to low sample sizes. In 2019/20, obesity rates were highest in those aged 45 to 54 and 65 to 74 with over a third of people in those age groups being classed as obese.

Obesity levels in Northern Ireland are estimated to have increased from 23.4% in 2010/11 to 27.6% in 2023/24.

Of respondents who were overweight, 42.6% of women said they were trying to lose weight, compared with 31.6% of men.

A timeseries of excess weight and obesity is shown in the chart below.

⁸ Department of Health NI, <u>Health Survey Northern Ireland</u>



Source: DoH, Health Survey Northern Ireland, 2023/24, Trend tables, BMI - Adults

3.6 Northern Ireland: child obesity

In 2019/20, the Health Survey Northern Ireland recorded 7% of children aged 2-10 and 4% of children aged 11-15 as being obese. However, because of the survey's small sample size, meaningful comparisons over time or between age groups can't be made.

As mentioned above, this survey did not contain questions on BMI in the last two editions.

4 Bariatric surgery

Bariatric surgery refers to procedures including gastric bypasses, stomach stapling and gastric band maintenance, often performed to limit the amount of food that an individual can consume. It is mainly used to treat those with a

BMI of above 40, and in some cases where BMI is between 35 and 40 if the patient has health problems such as heart disease or diabetes.⁹

NHS Digital's National Obesity Audit Dashboard contains information on bariatric surgeries carried out in England. In 2022/23, 4,417 people had bariatric surgery, a significant reduction from 2019/20 levels. In 2019/20, 5,741 people in England had bariatric surgery due to obesity in England. This fell during the Covid-19 pandemic, to 1,596 people in 2020/21 and 4,035 people in 2021/22.

The National Obesity Audit recently started recording the number of referrals to weight management services. In June 2024, there were a total of 7,890 open referrals.¹¹

⁹ NHS, Weight loss surgery

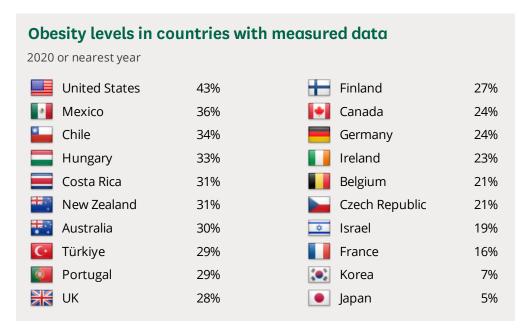
NHS Digital, <u>National Obesity Audit Dashboard</u>

¹¹ NHS Digital, <u>National Obesity Audit Community Services Dashboard</u>

5 International comparisons

The OECD Health Statistics database collates data on obesity from different countries. The table below shows data for countries with measured (as opposed to self-reported) obesity monitoring, for 2020 or the most recent year available.

The United States had the highest measured percentage of people who were obese (43%), while the UK ranked tenth among these countries with 28%. Japan had the lowest measured obesity prevalence, at 5%.



Source: OECD Health Statistics, Key Indicators file, Table: Obesity, total (M)

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