



Child physical activity data factsheet

Key points

- More boys (21%) than girls (16%) aged 5–15 years met the national physical activity target in 2012, achieving an hour of moderate activity every day (Figure 1). This varies regionally in England from 26% to 13% in boys, and 22% to 10% in girls (Figure 2)
- Low levels of physical activity in children are related to household income, with those in the lowest income bracket more likely to report low levels of activity. Among boys, 47% in the lowest income group and 26% in the highest did less than 30 minutes of moderate activity each day. Among girls, the figures were 49% and 35% (Figure 3)
- Accelerometer data shows a substantial decrease in physical activity between ages 4–10 and 11–15 years, with very low levels for girls (Figure 4)
- Patterns of activity vary with age and across the week. On weekdays, few children under ten are sedentary for six hours or more, but the proportion rises steeply to 24% in boys and 16% in girls aged 13–15 years. At weekends there is a steady increase in sedentary behaviour from age 2–4 (around 10%) to age 13–15 years (around 40%) (Figure 6)
- According to the 2013 National Travel Survey, 42% of children reported walking to school and 2% reported cycling to school in 2013 (Figure 7)

Self-reported data is influenced by the respondent's ability to accurately recall and assess their physical activity. Accelerometer data is objective and provides standardised measures of physical activity. Although accelerometer data has advantages over self-reported data, it does have limitations; for example accelerometers are less good at recording activities such as cycling and swimming.

Current figures

Figures 1 and 2 show the proportion of children meeting the government's physical activity recommendations (see table below) in 2012, according to self-reported data collected by the Health Survey for England (HSE).

Recommended levels of physical activity for children are grouped as follows:

Category	Aged under 5	Aged 5-15
Meets recommendations	At least 180 minutes (three hours) of physical activity on all seven days in the last week.	At least 60 minutes (one hour) of moderate to vigorous physical activity (MVPA) on all seven days in the last week.
Some activity	From 60–179 minutes of physical activity on all seven days in the last week.	From 30-59 minutes of MVPA on all seven days in the last week.
Low activity	Fewer than 60 minutes of activity on each day, or activity of 60 minutes or more on fewer than seven days in the last week.	Fewer than 30 minutes of MVPA on each day, or MVPA of 60 minutes or more on fewer than seven days in the last week.

Children aged 13–15 were asked directly about their physical activity, while the parents of 2–12 year olds were asked on their child's behalf. Activities during school hours and active travel to or from school were not included, therefore potentially under reporting overall activity levels.

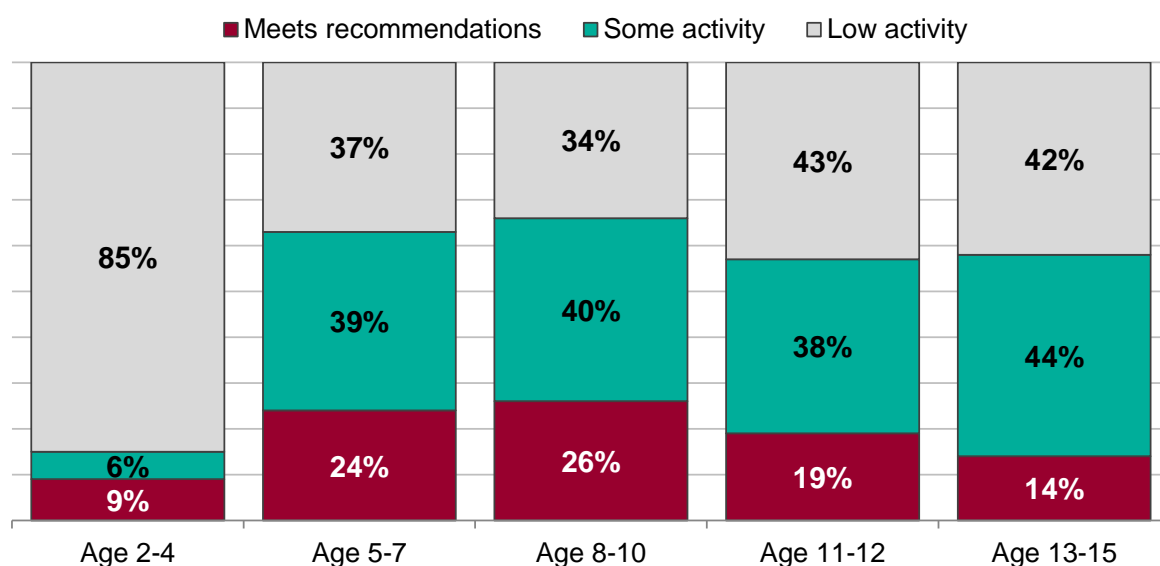
This is self-reported data and is influenced by the respondent's ability to accurately recall and assess their physical activity.

By age and sex

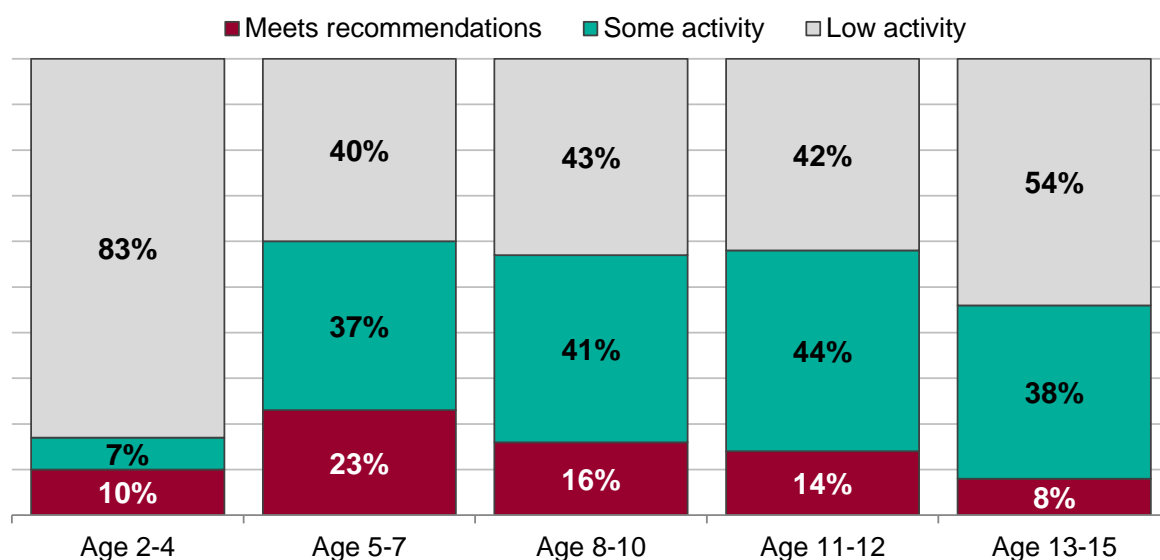
Among 2–4 year olds, the proportions of boys and girls meeting physical activity recommendations were similar (9% and 10% respectively); children in this age group had high proportions with low activity levels. In all other age groups (5–15 years), a larger proportion of girls reported low activity levels compared to boys.

Figure 1: Proportion of children meeting government recommendations for physical activity, by age and sex, 2012 (base: aged 2–15 years)

Boys



Girls



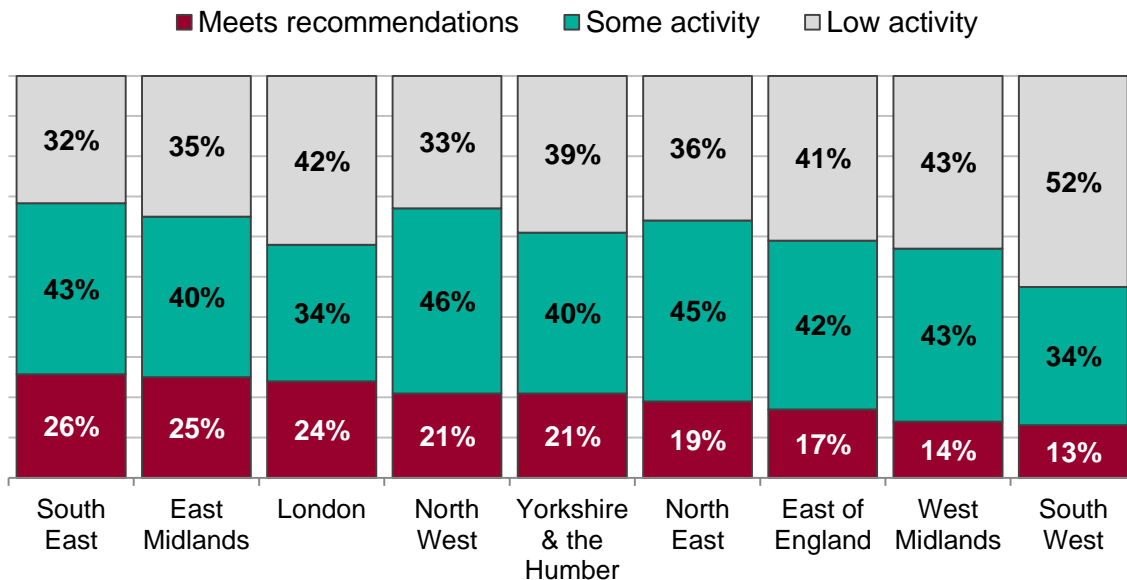
Source: Health Survey for England 2012 Report*.
Excludes walking and cycling to/from school

By region

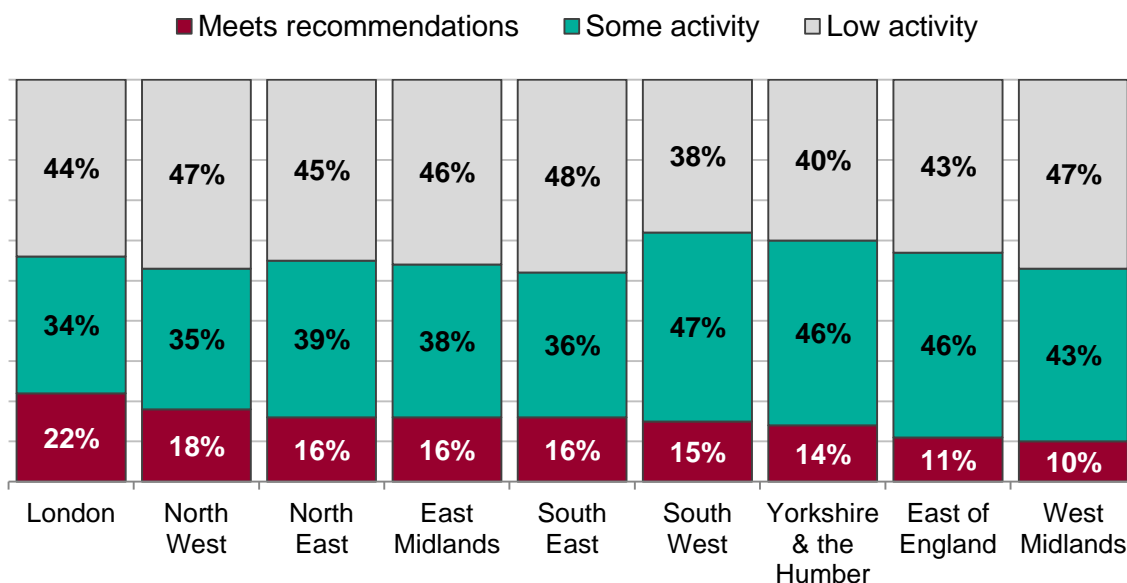
There is variation in physical activity levels across the country (Figure 2). Proportions of boys meeting the recommended physical activity levels range from 26% in South East England to 13% in South West England. Girls meeting the recommendations range from 22% in London to 10% in the West Midlands.

Figure 2: Age-standardised summary activity levels, by region and sex, 2012 (base: aged 5–15 years)

Boys



Girls



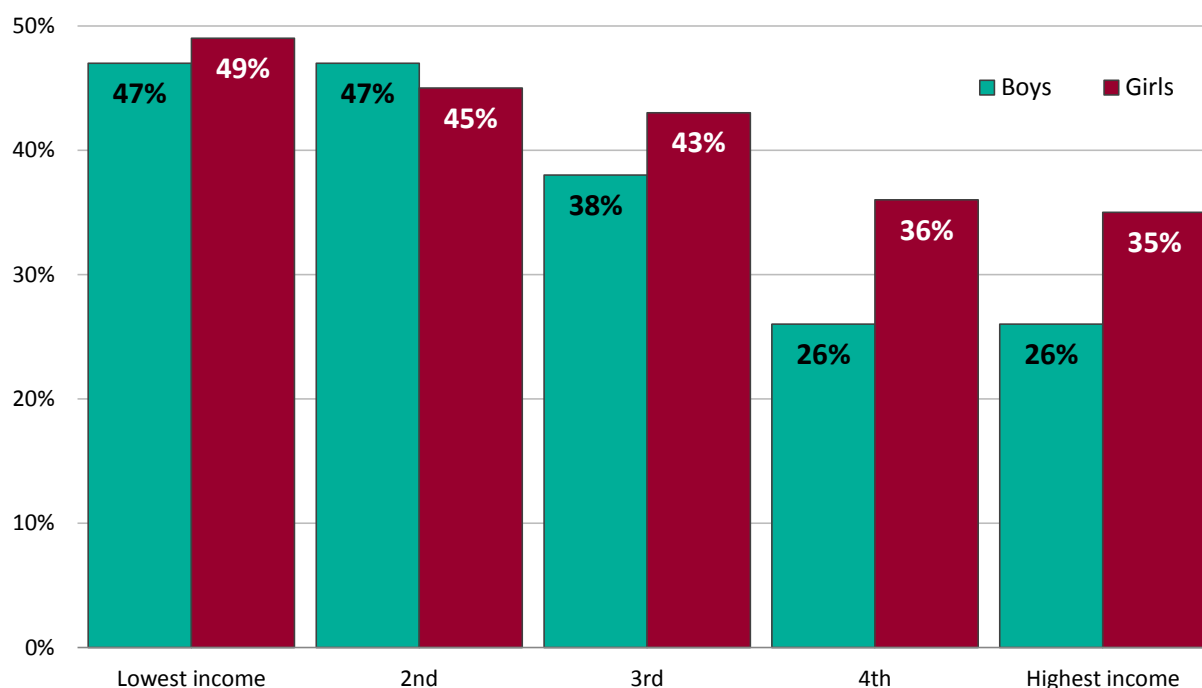
Source: Health Survey for England 2012 Report*. Excludes walking and cycling to or from school. Results for North East England are based on small sample sizes and should be used with caution.

Standardisation allows like to be compared with like, by making sure that differences in the number of events (for example individuals being physically active) observed in two or more populations are not due to differences in the age and sex profile between the different populations.

By household income

Low levels of physical activity are related to household income. More boys and girls in the lowest income households were classified in the low activity group than in the highest income households: 47% compared to 26% among boys, and 49% compared to 35% among girls (Figure 3). However, the proportions of children meeting the recommended guidelines did not show a clear trend relating to household income.

Figure 3: Proportion of children with low activity rating, by equivalised^a household income and sex (base: aged 2–15)



Source: Health Survey for England 2012 Report *

^aEquivalised household income is a measure that takes account of the number of people in the household. For this analysis, households were split into five equal-sized groups banded by income level (income quintiles). Physical activity levels were compared between these groups.

As the self-reported HSE data does not include activities during school hours and active travel to or from school the true pattern of activity by income group may differ.

Objective measurement of physical activity - accelerometer data

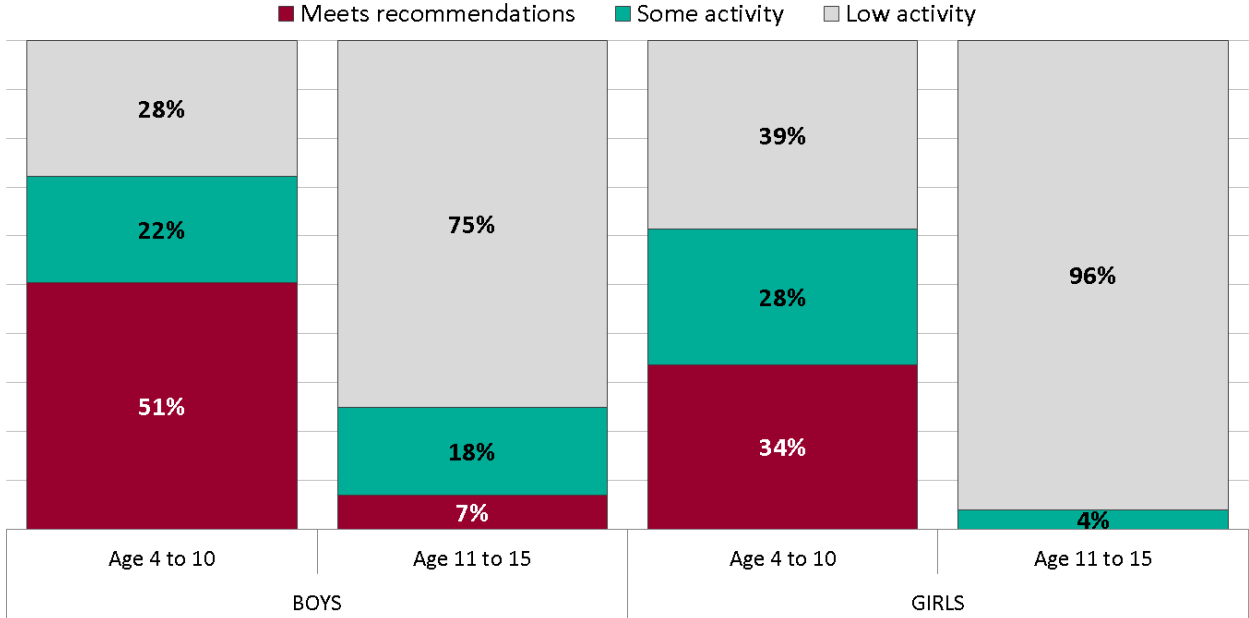
The HSE collected objective data on physical activity using accelerometers for the first time in 2008. This is likely to be more accurate than subjective self-reported data although it does have limitations, for example, accelerometers are less good at recording activities such as cycling and swimming.

Accelerometers were worn during waking hours for seven days, and results were categorised based on the current guidelines in 2008 (meets recommendations: 60 minutes per week on all seven days; some activity: 30–59 minutes on all seven days; low activity: lower levels of activity).

Results from the accelerometers show that more boys than girls (age 4–15 years) met the government’s recommendations for physical activity (33% and 21%, respectively). These figures are similar to the self-reported data (32% for boys and 22% for girls), although the HSE reported that where both measurements were collected for individuals there were some discrepancies (see data sources).

Figure 4 highlights a difference between the two age groups presented: 51% of boys and 34% of girls aged 4–10 years met the recommended levels in 2008, but only 7% of boys and no girls aged 11–15 years did so. This dramatic decrease is worrying, especially since the vast majority of older girls did not even achieve ‘some activity’ and fell instead into the ‘low activity’ category.

Figure 4: Objective summary activity levels by age and sex, 2008 (base: aged 4–15 years with seven days valid accelerometry)



Source: Health Survey for England 2008 Report*

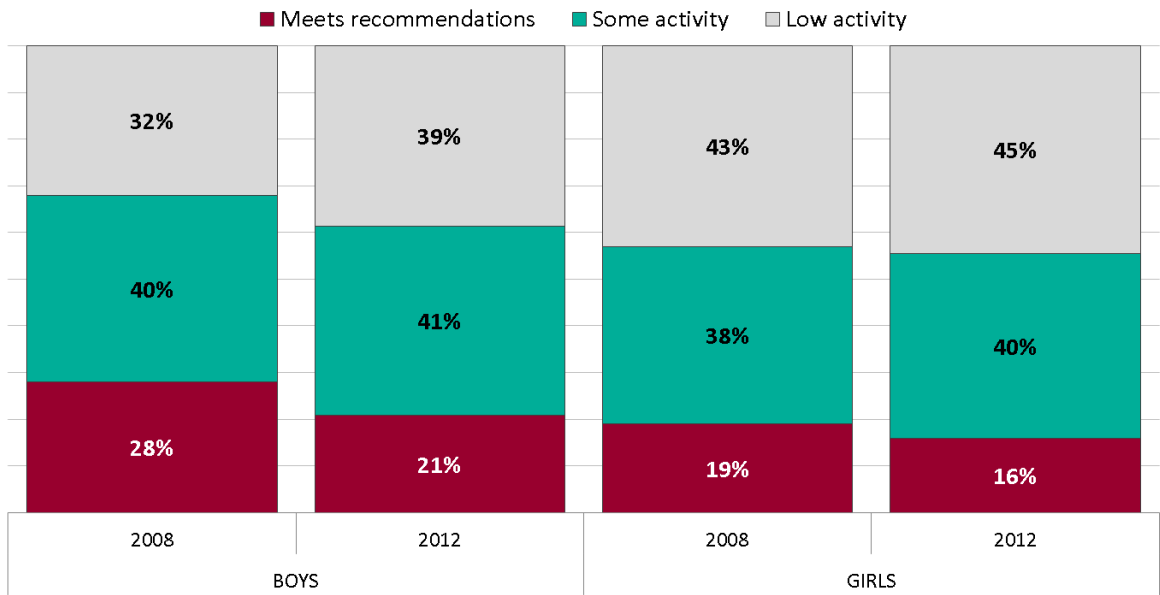
Trends

In order to allow for comparison with data collected in previous years, the 2012 data for children aged 2–15 years was also analysed based on the guidelines in 2008 and published in the HSE 2012 report as follows:

Category	Definition
Meets recommendations	60 minutes of moderate activity or more on all seven days per week
Some activity	30–59 minutes of moderate activity on all seven days
Low activity	Lower levels of activity

According to the HSE, in 2012 the total proportion of children aged 2–15 years meeting the previous recommended levels of physical activity was 21% for boys and 16% for girls. In both cases, this is a decrease from the previous survey results from 2008, where 28% of boys and 19% of girls met the recommendations (Figure 5).

Figure 5: Percentage of boys and girls achieving the recommended (high), medium (some) and low levels of physical activity (aged 2–15 years), 2008 and 2012



Source: Health Survey for England 2012 Report*

Sedentary time

In 2008 and 2012, the HSE included questions that aimed to find out how much time, on average, adults and children spend watching television and in other sedentary activities such as reading, eating, studying, drawing, using a computer or playing video games.

Comparing the latest results (2012) with 2008 (Table 1), the daily average number of hours spent sedentary on weekdays has reduced. At weekends, the average number of hours spent sedentary has also reduced for girls (from 3.8% to 3.7% in age 2–10 years and 4.8% to 4.5% in age 11–15 years), but has increased for boys (from 3.7% to 3.8% in age 2–10 years and 4.8% to 5.0% in age 11–15 years).

Figure 6 also shows a difference in the time spent sedentary among children on weekdays and at weekends. On weekdays, fewer than 10% of children under 10 are sedentary for six hours or more. The proportion of children aged 13–15 years is much higher at 24% for boys and 16% for girls. At weekends, there is a steady increase from the youngest age group (around 10%) to the oldest (43% of boys and 37% of girls).

Table 1: Average daily number of hours spent sedentary, by age and sex 2008 and 2012 (base: aged 2–15 years)

Weekdays

	2008		2012	
	2-10 years	11-15 years	2-10 years	11-15 years
Boys	3.0	4.1	2.9	4.0
Girls	3.0	4.2	2.8	3.9

Weekends

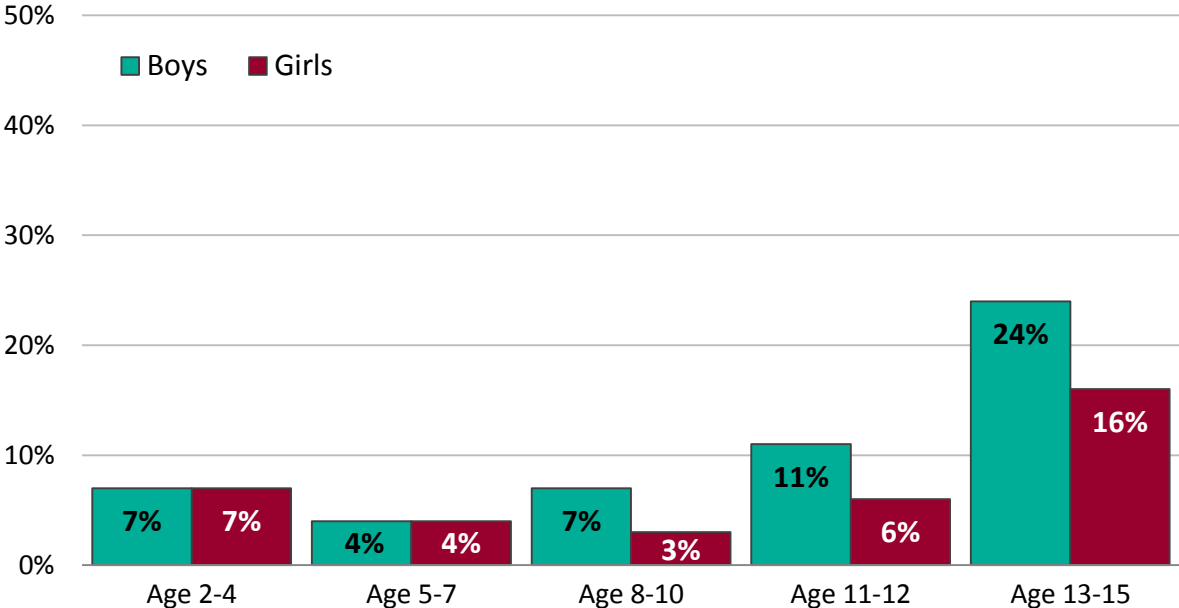
	2008		2012	
	2-10 years	11-15 years	2-10 years	11-15 years
Boys	3.7	4.8	3.8	5.0
Girls	3.8	4.8	3.7	4.5

Source: Health Survey for England 2012 Report *

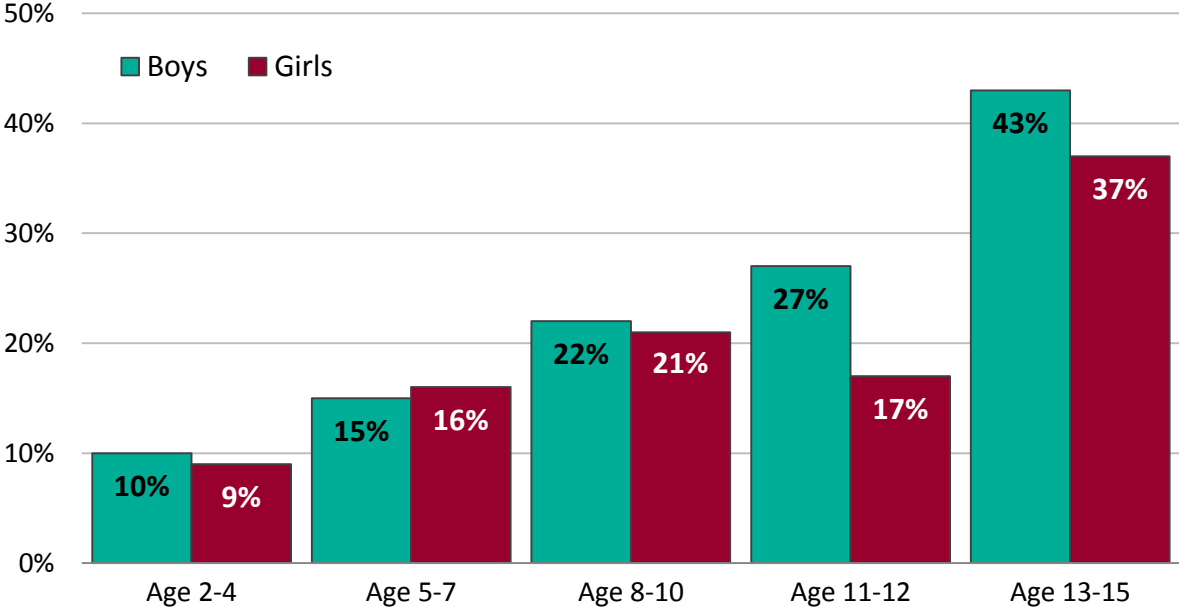
Note that this is again self-reported data, which is subjective and is influenced by the respondent's ability to accurately recall and assess their physical activity.

Figure 6: Proportion of children that spent six or more hours being sedentary per day by age group, 2012 (base: aged 2–15 years)

Weekdays



Weekends

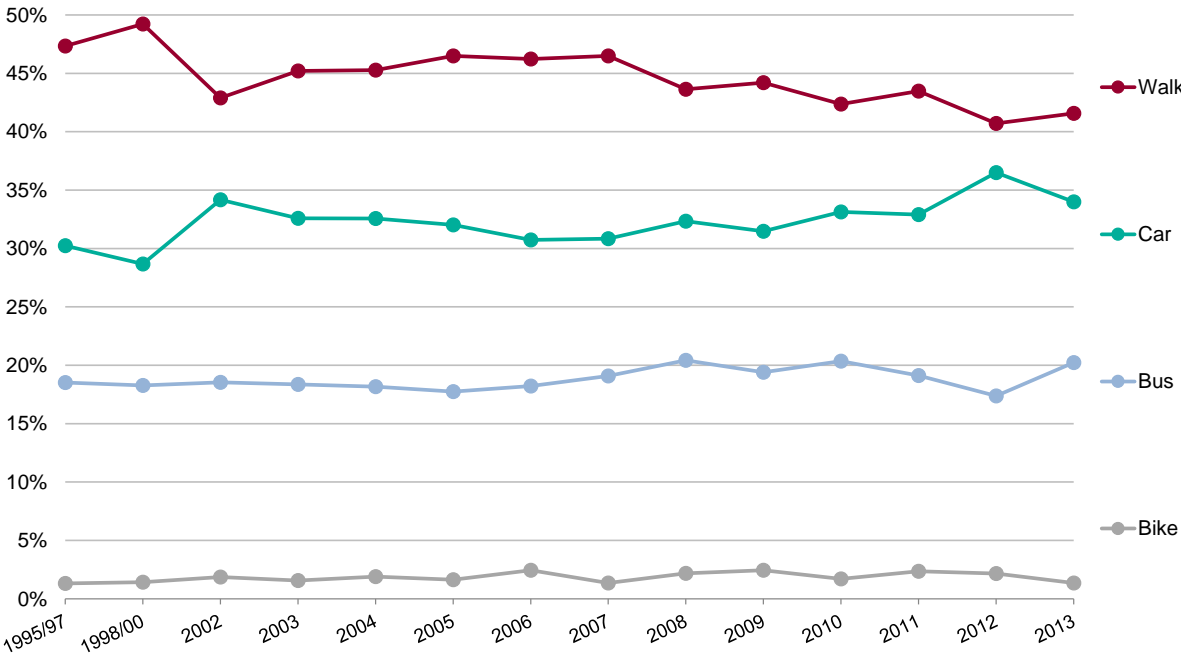


Source: Health Survey for England 2012 Report*

Travel to school

Figure 7 presents data from the National Travel Survey on how children travel to school. Most children aged 5–16 years reported walking to school (42% in 2013), 34% travelled by car or van, 20% by bus (including private bus) and only 1% cycled to school in 2013. These figures have remained very similar for the past nine years, although there has perhaps been a slight drop in the number walking and a corresponding small increase in car journeys since 1995/97.

Figure 7: Percentage of trips to and from school for children (aged 5–16 years) by main mode of transport, 1995/1997 to 2013, Great Britain



Source: National Travel Survey 2013
 Data include trips of less than 50 miles only.

Data sources

Health Survey for England

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

All data presented here from the HSE is the most recent available at the time of writing. The HSE is a cross-sectional survey that samples a representative proportion of the population. No physical activity data was collected in the HSE 2009, 2010 or 2011.

For comparison of objective measurement and self-reported physical activity levels see: <http://www.hscic.gov.uk/catalogue/PUB00430/heal-surv-phys-acti-fitn-eng-2008-rep-v2.pdf> (page 166)

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

Date of next release: The report on the HSE 2013 should be published online in December 2014. The data should be available from the UK Data Archive in the spring following publication of the report.

* *Health Survey for England, 2008–2012.*

Joint Health Surveys Unit (Nat Cen Social Research & UCL) 2014. The Health and Social Care Information Centre: Leeds.

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National Travel Survey

<https://www.gov.uk/government/publications/national-travel-survey-2013>

The National Travel Survey is a series of continuous household surveys on personal travel. It uses an interview and week-long travel diary to measure all aspects of personal travel, including walking and cycling. The survey is designed to pick up long-term trends and is not suitable for monitoring short-term trends.

Timing of data collection: The survey has been running on an ad hoc basis since 1965 and continuously since 1988. The data is collected annually and the most recent data available is for 2013, published in July 2014.

Date of next release: Data from the 2014 National Travel Survey and the published report should be available in July 2015.

Definitions

The minimum recommended levels of physical activity for children are:

- **Under-fives:** 180 minutes (three hours) spread throughout the day, once a child is able to walk. For children who are not yet walking physical activity should be encouraged from birth, particularly through floor-based play and water-based activities in safe environments.
- **Children and young people (5–18 year olds):** At least 60 minutes and up to several hours every day which should be a mix of moderate intensity aerobic activity, (for example walking to school or riding a bike) and vigorous intensity aerobic activity, (for example running, gymnastics and football). Vigorous intensity activities strengthen muscle and bone and should be included at least three days a week.
- In addition, **all children** and adults are advised to minimise the time spent being sedentary for extended periods.

Children and young people should take part in activities that are appropriate for their age and stage of development.

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