

## Key points

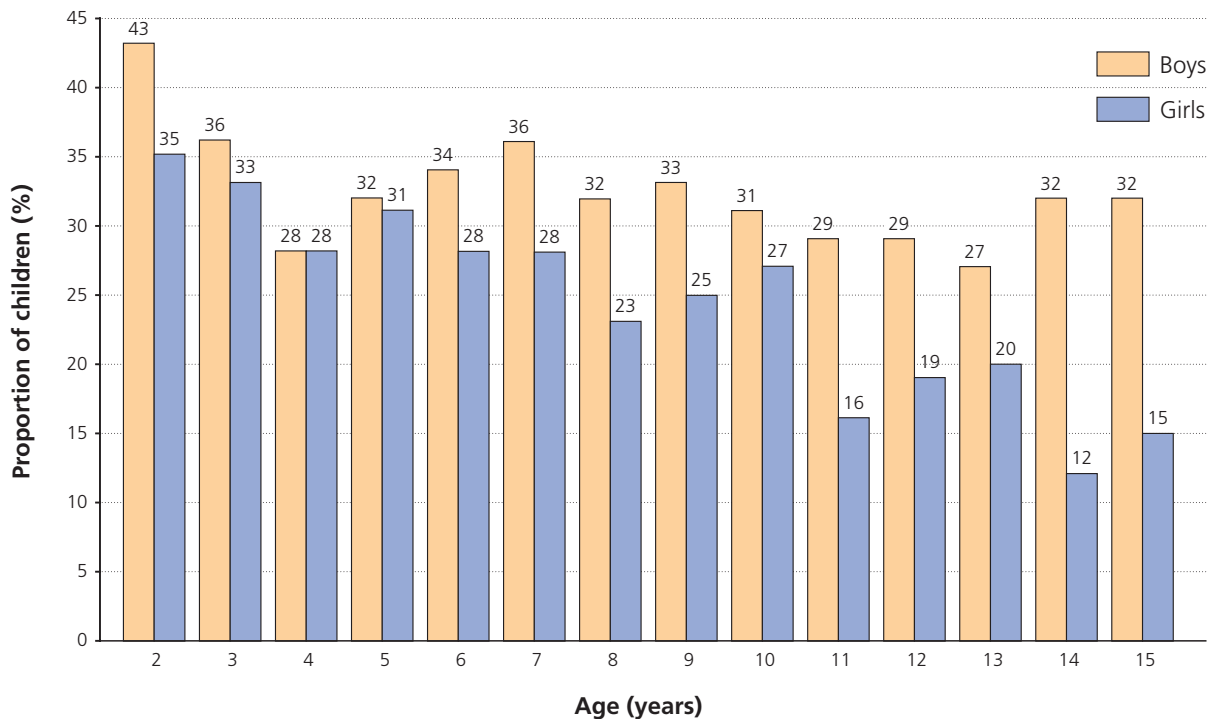
- More boys (32%) than girls (24%) aged 2–15 years met the national physical activity target in 2008, achieving an hour of moderate activity every day ([Figure 1](#)). These self-reported data are very similar to objective data: 33% of boys and 21% of girls achieved the target based on accelerometer use ([Figure 2](#)).
- Self-reported data are influenced by the respondent's ability to accurately recall and assess their physical activity. Accelerometer data are objective and provide standardised measures of physical activity. Although accelerometer data have advantages over self-reported data, they do have limitations; for example accelerometers are less good at recording activities such as cycling and rowing.
- Physical activity declines with age ([Figure 1](#)). Accelerometer data show a substantial decrease in physical activity between ages 4–10 and 11–15 years, with very low levels for girls ([Figure 2](#)).
- Physical activity levels in children are related to household income, with those in the lowest income bracket more likely to be active. Among boys, 36% in the lowest income group and 25% in the highest income group did an hour or more of moderate activity every day. Among girls, the figures were 30% and 22% ([Figure 3](#)).
- 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 around 30% at age 15 years. At weekends there is a steady increase in sedentary activity from age 2 (around 8%) to age 15 years (around 40%) ([Figure 4](#)).
- According to the National Travel Survey, 43% of children reported walking to school and 2% reported cycling to school in 2009 ([Table 2](#)). The School Census 2010 figures for walking and cycling to school are 50% and 2% respectively.
- The proportion of 5–16 year olds participating in at least 2 hours of high-quality curriculum physical education and sport at school every week increased from 44% in 2003/04 to 86% in 2009/10 ([Figure 5](#)).
- More girls than boys aged 11–15 years say they would like to do more physical activity (74% and 61% respectively). This proportion falls with age among boys, but not among girls ([Figure 6](#)).

## Current figures

Figure 1 presents self-reported data from the Health Survey for England (HSE) on physical activity among children aged 2–15 years. These 2008 figures show that a higher proportion of boys (32%) than girls (24%) meet the government's recommendations for physical activity, doing at least an hour of moderate activity every day.

Boys are more likely than girls to be active at almost every age, although the difference is more marked among older children. Physical activity declines with age in both sexes, but more steeply in girls.

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



Source: Health Survey for England 2008 Report.

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New questions on physical activity were used in the HSE in 2008, so these data cannot be directly compared with earlier years. In 2008 the categories for physical activity were renamed to describe more accurately what they represent, since the category formerly labelled 'High' is in fact the group that meets government recommendations for the minimum level of activity to achieve health benefits. The following categories were used for 2006 and 2007 data:

Category	Definition
High	60 minutes of moderate activity or more on all 7 days in the last week
Medium	30–59 minutes of moderate activity on all 7 days in the last week
Low	Lower level of activity in the last week

The data suggest that 72% of boys and 63% of girls did at least an hour of physical activity every day.

**TABLE 1: Percentage of boys and girls achieving the recommended (high) level and medium and low levels of physical activity (aged 2–15 years)**

	2006			2007		
	High	Medium	Low	High	Medium	Low
<b>Boys</b>	70%	15%	15%	72%	13%	15%
<b>Girls</b>	59%	19%	22%	63%	18%	19%

Source: Health Survey for England

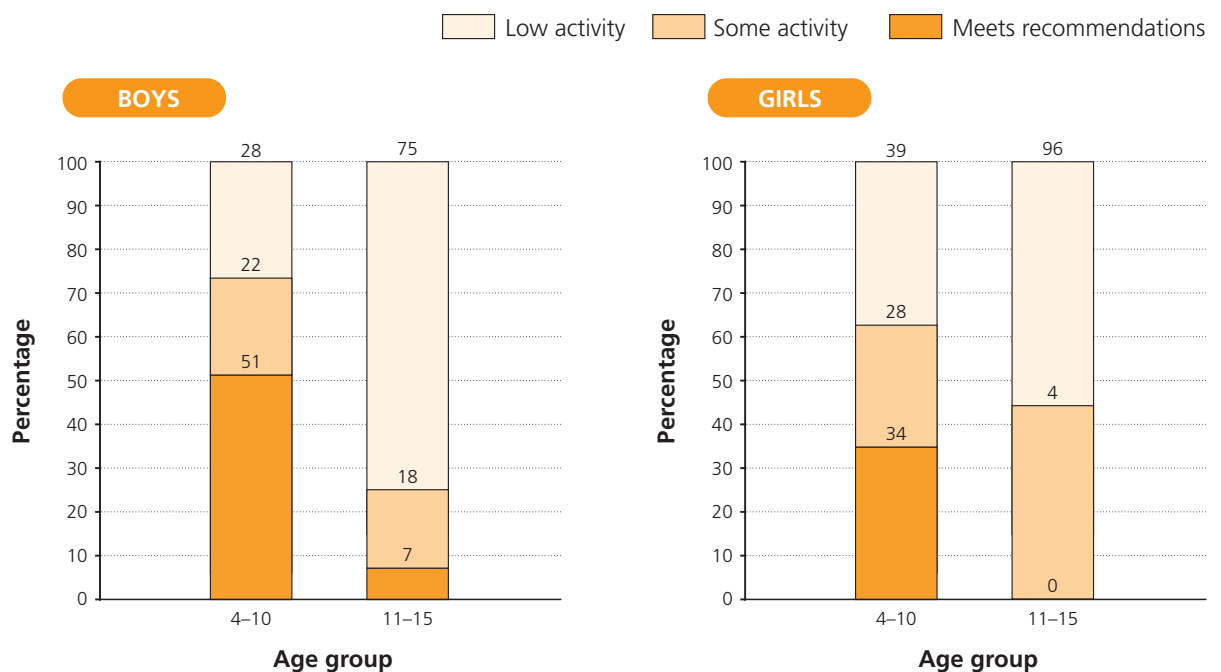
## Objective measurement of physical activity: accelerometer data

The HSE collected objective data on physical activity using accelerometers for the first time in 2008. These are likely to be more accurate than subjective, self-reported data although they do have limitations; for example accelerometers are less good at recording activities such as cycling and rowing. For children accelerometer data were very similar to self-reported physical activity data.

The following categories for accelerometer data were used for 2008:

Category	Definition
Meets recommendations	60 minutes of moderate activity or more on all 7 days of accelerometer wear
Some activity	30–59 minutes of moderate activity on all 7 days of accelerometer wear
Low activity	Lower level of activity

Figure 2 shows that more boys than girls met the government's recommendations for physical activity (33% and 21% respectively). It also shows a different pattern for the two age groups presented here. 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 2: Objective summary activity levels (base: aged 4–15 with 7 days' valid accelerometry)**

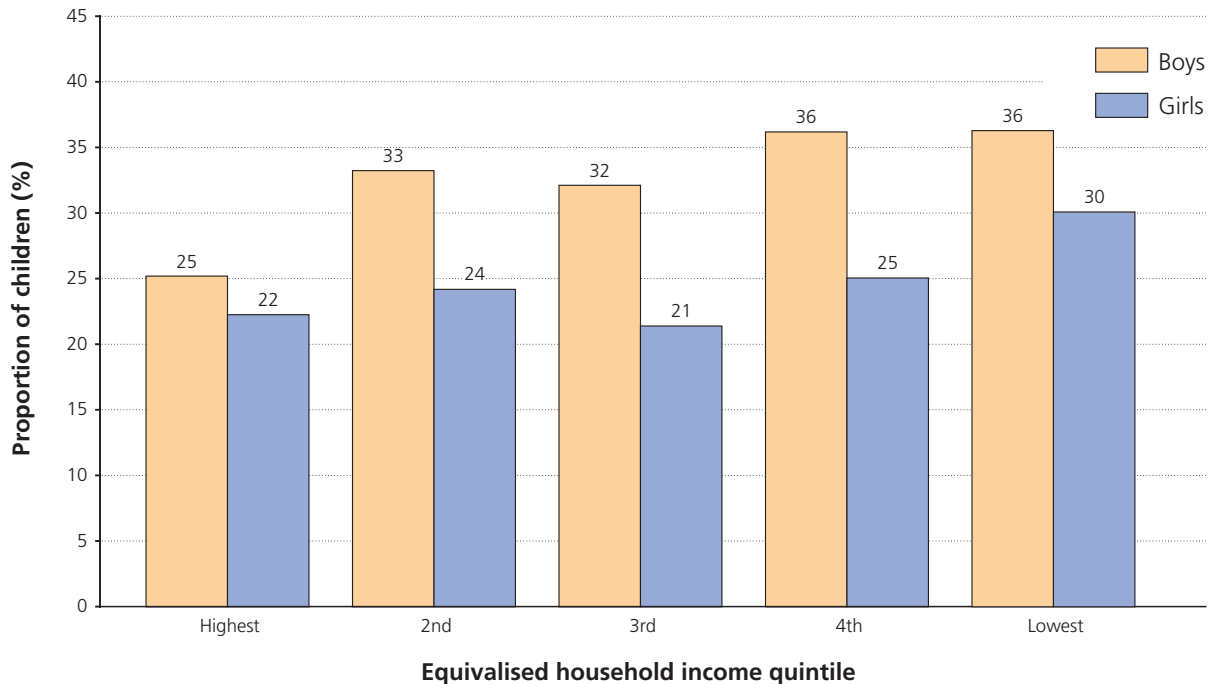
Source: Health Survey for England 2008 Report.

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## Physical activity and income

Physical activity is related to household income. More boys and girls in the lowest income households meet the target for physical activity than in the highest income households: 36% compared to 25% among boys, and 30% compared to 22% among girls. This is perhaps surprising, since children in lower income groups are often found to have less healthy lifestyles.

**FIGURE 3: Proportion of children meeting government recommendations for physical activity, by equivalised\* household income and sex (base: aged 2–15)**



Source: Health Survey for England 2008 Report.

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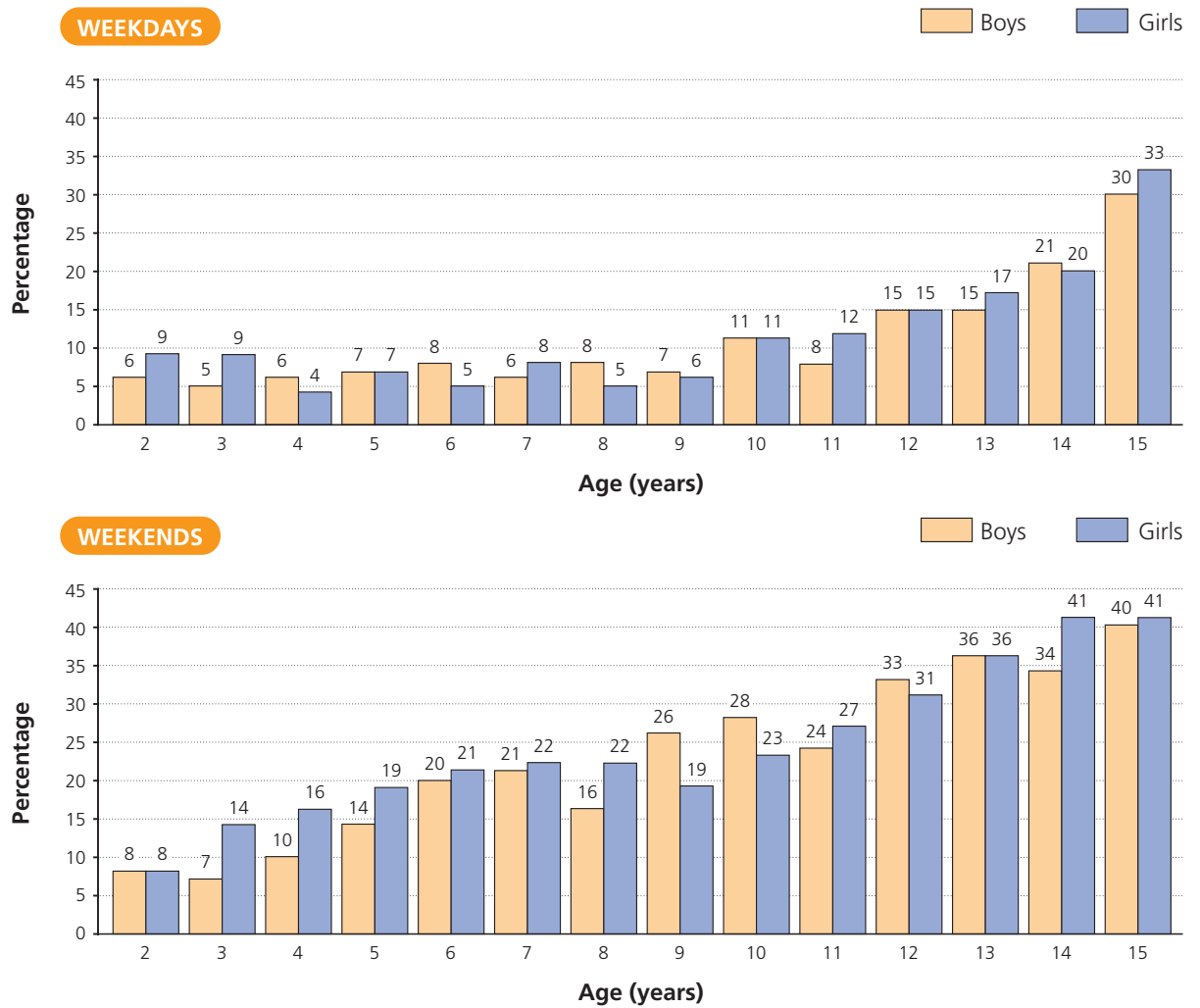
\*Equivalised household income is a measure that takes account of the number of people in the household. For this analysis, households were split into five equal sized groups banded by income level (income quintiles). Physical activity levels were compared between these groups.

## Sedentary time

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

Figure 4 shows a different pattern of sedentary time among children on weekdays and weekend days. On weekdays, fewer than 10% of children under 10 are sedentary for six hours or more, but the proportion rises steeply to around 30% at age 15. At weekends, there is a steady increase from age 2 (around 8%) to age 15 (40% of boys and 41% of girls).

**FIGURE 4: Proportion spending 6 or more hours total sedentary time per day (base: aged 2–15 years)**



Source: Health Survey for England 2008 Report.

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## Travel to school

Table 2 presents data from the National Travel Survey on how children travel to school. Most children aged 5–16 years report walking to school (43%). 31% come by car or van, 20% by bus (including private bus) and only 2% cycle to school. These figures have remained very similar for the last eight years, although there has perhaps been a slight drop in the number walking and a corresponding small increase in car journeys since 1995/97. There is general agreement between these data and 'usual mode of transport' data collected in the School Census. According to the School Census, in January 2009 approximately 47% of students walked to school, increasing to 50% in 2010.

**TABLE 2: Percentage of trips to and from school for children (aged 5–16 years) by main mode of transport, 1995/1997 to 2009**

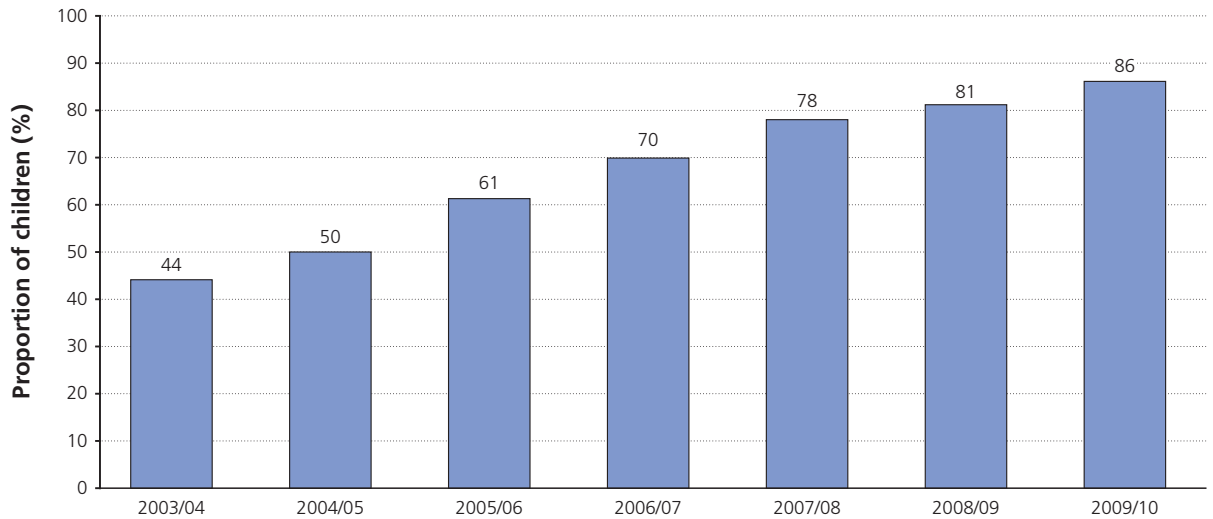
	1995/1997	1998/2000	2002	2003	2004	2005	2006	2007	2008	2009
Walk	47	49	44	45	46	46	46	46	44	43
Bicycle	1	1	2	1	2	1	2	1	2	2
Car/van	29	28	32	31	32	32	30	31	32	31
Private bus	5	5	6	6	5	6	5	6	7	6
Local bus	15	14	14	14	13	12	14	13	14	14
Rail	–	1	1	1	1	1	1	1	1	1
Other	2	2	2	2	1	1	1	2	1	2

Data include trips of less than 50 miles only. Source: National Travel Survey (Department for Transport).

## Physical activity at school

Data from the Annual School Sport Survey show that the percentage of children in Years 1–11 (aged 5–16 years) participating in at least 2 hours per week of high-quality curriculum time physical education and sport at school increased from 44% in 2003/04 to 86% in 2009/10.

**FIGURE 5: Proportion of children in Years 1–11 (aged 5–16 years) who participated in at least 120 minutes of curriculum PE per week, 2003/04 to 2009/10**

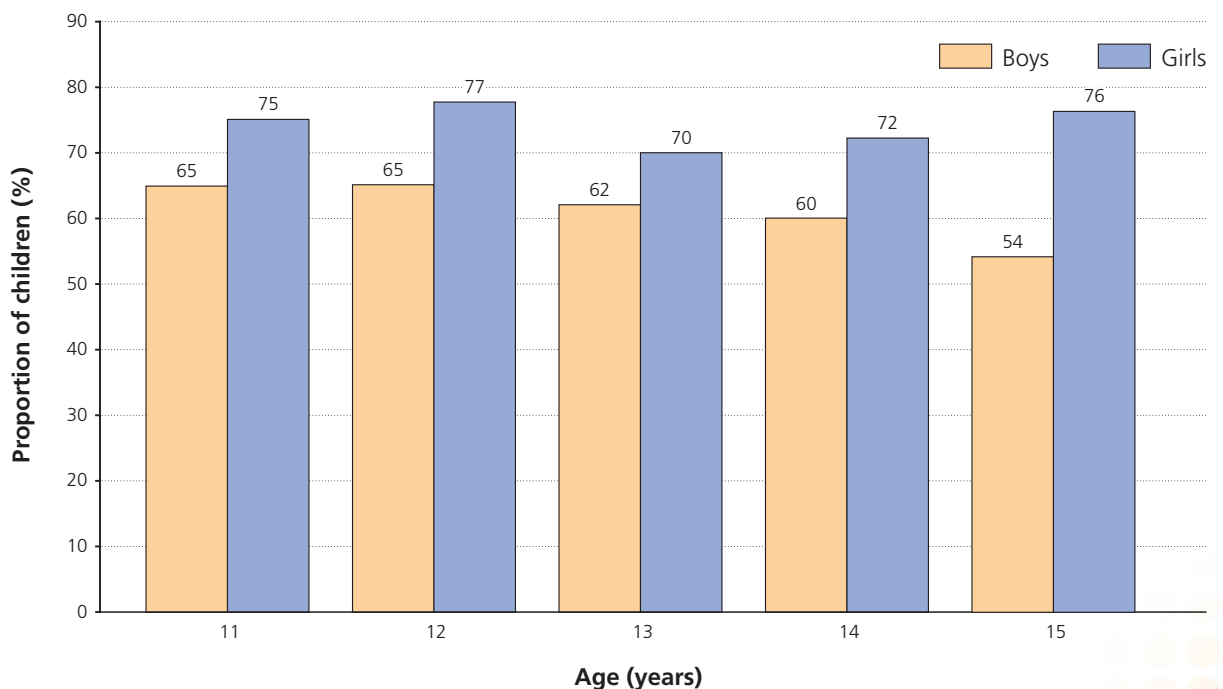


Source: PE and Sport Survey 2008/09, 2009/10. Department of Children, Schools and Families.

## Attitudes to physical activity

Figure 6 shows the results of a question in the 2007 HSE about whether children would like to do more physical activity. More girls than boys said 'yes' to this question (74% compared to 61% overall). The proportion saying 'yes' fell with age from 11 to 15 years among boys, but not among girls. The most frequently mentioned sports and activities boys would like to do more were ball sports (39%), riding a bike and swimming (both 35%). For girls the most frequently mentioned sport was swimming (47%).

**FIGURE 6: Proportion of children (aged 11–15 years) who would like to do more physical activity, by age and sex**



Source: Health Survey for England 2007 Report.

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## Data sources

### Health Survey for England

The HSE is a cross-sectional survey which samples a representative proportion of the population. The data presented here include HSE 2007 and HSE 2008 data. The primary focus of the HSE 2007 was knowledge and attitudes about key aspects of lifestyle data: smoking, drinking, eating and physical activity. The HSE 2008 focused on physical activity and fitness levels and included accelerometer data from a sample of approximately 3,600 adults together with a step test to measure cardiovascular fitness. These data provide objective measurements of physical activity and help with validating the survey questionnaire.

*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: e.g. 2004 included a boost of individuals from minority ethnic groups.

*Date of next release:* The 2009 report is scheduled to be published online in December 2010. The data will be available from the UK Data Archive two to three months after publication of the report.

### National Travel Survey

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 are collected annually and the most recent data available are for 2009.

*Date of next release:* Data from the 2010 National Travel Survey and the published report should be available in autumn 2011.

### Annual PE and Sport Survey (formerly the Annual School Sport Survey)

Since 2003/04 annual surveys on participation in physical education and sport in schools have been conducted. The surveys are conducted on behalf of the Department for Children, Schools and Families. Data from the Annual School Sport Survey 2003/04 to 2009/10 are presented here, and differ from those published previously because of the change in definition. In this briefing the percentage of children participating in at least 120 minutes of PE and sporting curriculum per week is presented. This differs from previous presentations of at least 2 hours of high quality PE and out of hours school sporting activity.

*Timing of data collection:* The surveys took place during May–July each year, with the 2009/10 survey involving the participation of approximately 21,400 schools.

### School Census

The Department for Children, Schools and Families coordinates an annual School Census. This comprises termly collections with different data required on each occasion, at school level and pupil level. During the spring, census data on pupils' 'usual mode of travel' are collected. The most recent data available are for January 2010.

*Timing of data collection:* Mode of travel to school data are collected each spring and are available in the summer of the corresponding year.



## Definitions

The recommended level of physical activity for children is at least 60 minutes of at least moderate intensity physical activity each day.

## Useful resources

### Health Survey for England

<http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england>

<http://www.dh.gov.uk/en/Publicationsandstatistics/PublishedSurvey/HealthSurveyForEngland/Healthsurveyresults/index.htm>

### National Travel Survey

<http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/>

### Annual PE and Sport Survey

<http://www.education.gov.uk/research/data/uploadfiles/DFE-RR032-WEB.pdf>

### School Census

<http://www.education.gov.uk/rsgateway/DB/SFR/s000925/SFR09-2010AT.xls>

## Changes summary

- **March 2010:** Original report
- **December 2010:** updated to include 2010 School Census data for mode of travel to school; 2009 National Travel Survey data; and the 2009/10 Annual PE and Sport Survey