

Physical activity in children

3

Shaun Scholes, Jennifer Mindell

Summary

- This chapter reports on physical activity among children aged 2-15. In addition to presenting the frequency and duration of participation in different types of activity, it compares reported activity levels with age-specific guidelines. It also compares levels of both physical activity and sedentary behaviour in 2008 and 2012.
- A similar proportion of boys and girls aged 2-4 (9% and 10% respectively) were classified as meeting the current guidelines for children under 5 of at least three hours of physical activity per day.
- A higher proportion of boys than girls aged 5-15 (21% and 16% respectively) were classified as meeting current guidelines for children and young people of at least one hour of moderately intensive physical activity per day. Among both sexes, the proportion meeting guidelines was lower in older children. The proportion of boys meeting guidelines decreased from 24% in those aged 5-7 to 14% aged 13-15. Among girls the decrease was from 23% to 8% respectively.
- The proportion of children aged 5-15 meeting guidelines did not vary by equivalised household income quintile. However, the proportion of both boys and girls in the low activity group was greater in lower quintiles than higher quintiles of equivalised household income.
- The proportion of boys aged 5-15 meeting recommendations varied according to parental activity levels. For instance, this proportion was higher among boys whose father did not achieve the physical activity guidelines for adults. Among girls of the same age, the activity level of parents made relatively little difference to the proportion meeting recommendations.
- Among boys, there was a significant decrease over time in the proportion meeting current guidelines, falling from 28% in 2008 to 21% in 2012. The corresponding change among girls was not significant, from 19% to 16%. The decrease in the proportion meeting recommendations was more marked in the oldest age group: 28% of boys and 14% of girls aged 13-15 met the guidelines in 2008, compared with 14% and 8% respectively in 2012.
- Two thirds of children who had attended school in the last week had walked to or from school on at least one occasion (64% of boys and 67% of girls). 41% of boys and 44% of girls walked to/from school every day. On average, children spent 1.1 hours walking to/from school in the last week. More boys than girls cycled to/from school on at least one occasion in the last week (6% and 1% respectively).
- The proportion of both boys and girls who had walked and/or cycled to or from school on at least one occasion in the last week was similar in 2008 and 2012.
- Overall, 93% of boys and 92% of girls had participated in any type of physical activity in the last week. Boys were more likely than girls to have participated in formal sports (48% and 38% respectively) on at least one occasion in the last week; however, levels of walking (52% of boys and 54% of girls, excluding walking to/from school) and

informal activity (85% among both sexes) were similar. Boys averaged more days of participation in informal activities and formal sports (4.0 days and 1.3 days respectively) than girls (3.8 and 0.9 respectively).

- Patterns of activity varied by age. Younger and older children (aged 2-4 and 11-15) walked on more days in the last week than those in the middle age groups. Participation in informal activities fell steadily with age, while participation in formal sports increased with age in boys up to the age of 10.
- A similar proportion of boys and girls participated in at least seven hours of physical activity in the last week (52% and 46% respectively). Among boys, the proportion that participated in at least seven hours of informal activity in the last week fell from 44% for those aged 2-4 to 27% for those aged 13-15. Among girls, this decrease with age was more marked, falling from 40% to 9%.
- For both boys and girls, there was a gradual increase in the average number of hours spent in formal sports activity in the last week as the equivalised household income quintile increased; this increase was from 1.2 hours for boys and 0.6 hours for girls in the lowest income quintile to 2.1 hours and 1.6 hours respectively in the highest income quintile.
- Average total sedentary time (excluding time at school) was similar for boys and girls on weekdays (3.3 hours and 3.2 hours respectively) and weekend days (4.2 hours and 4.0 hours respectively).
- The average time per day spent watching TV on weekdays increased steadily with age in boys (from 1.5 hours for those aged 2-4 to 1.8 hours for those aged 13-15); however, the increase among the same ages was steeper in girls (1.5 to 2.2 hours). Conversely, on weekend days, the increase with age in other sedentary time was steepest for boys (from 1.4 hours for those aged 2-4 to 2.9 hours for those aged 13-15, compared with 1.4 to 2.4 hours in girls).
- For both boys and girls, the average number of hours spent watching TV on both weekdays and weekend days increased as equivalised household income decreased.
- Among children aged 2-10, the mean number of sedentary hours on a typical weekday decreased from 3.0 hours for both sexes in 2008 to 2.9 hours for boys and 2.8 hours for girls in 2012. Among boys aged 11-15, mean sedentary time on weekend days increased from 4.8 hours in 2008 to 5.0 hours in 2012; for girls of similar age, mean sedentary time decreased from 4.8 to 4.5 hours.

3.1. Introduction

3.1.1 The importance of physical activity in childhood

Physical activity is important for children. Obesity is a major adverse health consequence of physical inactivity, although not the only one. In the USA, half of obese children aged 3 to 6 will become obese adults, and obese three-year-olds generally became obese during infancy.¹ Habits track from childhood to adulthood,² so active children are less likely to suffer the adverse health consequences of physical inactivity in adulthood (see Chapter 2).

It is not always appreciated that physical inactivity in childhood also has direct health consequences, both in the short- and mid-term. In pre-school children, physical activity is critical for reduced adiposity, improved bone and muscle strength, motor development, and psychosocial health, as well as being important for cardio-metabolic health (blood pressure, blood lipids (fats) and insulin sensitivity).^{3,4}

In school-aged children, periodic physical activity can increase academic achievement (and at worst, not reduce it), increase attention, and improve behaviour and attitudes, as well as increasing physical health.⁵ This may be through improving cognitive control, enhancing choice instead of impulse.⁶ Greater physical fitness is also related to better brain function and reduced reaction times.⁶

Physical activity sufficient to improve aerobic fitness can reduce blood pressure in children with hypertension, reduce blood lipids, and reduce adverse metabolic profiles; muscle-strengthening exercise has similar but lesser effects.⁷ Physical activity alone can improve insulin resistance risk, even without weight loss.⁸

A recent review found that optimal bone mass and bone structure occurs in those who are most active during the pre-pubertal and early pubertal years. The authors recommended a minimum of 60 minutes per day (cumulative total) of weight-bearing activity, including both general moderate to vigorous intensity physical activity (MVPA) and targeted activity, such as jumping for 10 or more minutes three times per week.⁹

3.1.2 Guidelines on physical activity in childhood

The evidence on the benefits of physical activity and the amount of activity recommended for health was reviewed in 2010¹⁰ for the Chief Medical Officers of the four UK countries, who published new recommendations in 2011.¹¹ For the first time, guidelines were published for children under five. Even for those unable to walk, physical activity should be encouraged from birth onwards.¹² Those able to walk unaided are recommended to be active for at least 180 minutes (3 hours) per day, spread throughout the day. Examples of suitable activities include: walking or skipping to local destinations (school, a friend's home, park, or shops); energetic play, such as using a climbing frame or riding a bicycle; bouts of more energetic activity, such as running and chasing games; and activities that involve all the major muscle groups.¹³

The 2011 recommendations for children aged 5 to 18 are twofold. As previously, it is recommended that children should be at least moderately active for at least 60 minutes every day, though it is stated specifically that this is a minimum and that children and young people should engage in MVPA for up to several hours each day. It was also recommended that vigorous intensity activity, including muscle- and bone-strengthening activities, should be undertaken at least three days each week.¹⁴ Moderate intensity activities were described as those that made the participant warmer, breathe harder, or their heart beat faster, while still being able to converse, such as cycling or playground activities. Vigorous activities would have similar but greater effects, while making conversation much harder, such as running fast, swimming, or football. Muscle- and bone-strengthening activities include hopping, skipping, gymnastics, racquet sports, and swinging on playground equipment, i.e. activities that involve using body weight or working against resistance.¹⁴

3.1.3 Sedentary behaviour

Sedentary behaviour is defined as activity with very low energy expenditure, undertaken primarily sitting or lying down. Sedentary behaviours are undertaken in a range of settings, including school, home, travel, and in leisure time, and include screen-time (watching television, computer use, video games), motorised transport, and sitting to read, talk, do homework, or listen to music.¹⁵ As with adults, there is increasing evidence that sedentary behaviour is itself unhealthy, independent of physical activity. There is low to moderate tracking of sedentary behaviour from childhood to adulthood, particularly for television viewing. Children who are more sedentary are more likely to be obese, and to be obese as adults.¹⁵

3.1.4 Guidelines on sedentary behaviour in childhood

The 2011 guidelines on physical activity also covered sedentary behaviour. Apart from when sleeping, extended periods of sedentary time should be minimised for children of any age,¹⁴ whether sitting or being restrained.^{12,13} For example, the time spent watching television, using a computer, or playing video games should be reduced,¹⁴ as should time spent in a pushchair or car seat.¹³ Equivalent examples were provided for infants.¹² In the USA, recommendations to reduce obesity risk include a limit of less than 1-2 hours screen-based entertainment daily for children and discouraging TV viewing for children below two years of age.¹⁶

3.1.5 Policies to promote physical activity in children in England

Given the important effects of physical activity, one of the planned legacies from hosting the London 2012 Olympic and Paralympic Games was an increase in sports and exercise participation, including active travel (walking and cycling), by the general public across the country. Physical activity can be increased in children by encouraging active travel (walking and cycling) and play ('free-range kids'¹⁷). The literature suggests that factors affecting environmental settings conducive to such activity include spatial planning to ensure a variety of land uses in close proximity; comprehensive, attractive, and functional facilities for active travel and public transport; and adequate safety and access for all.¹⁸ Children who commute to school on foot or by bicycle are more active at other times than children who are driven to school.^{4,19}

Physical activity at 'playtime' in schools can contribute significantly to overall, and adequate, physical activity levels.⁴ Providing facilities at school, including unfixed equipment, and encouragement to be active, increased physical activity during such 'break' periods at school.²⁰

The 2011 report from all four Chief Medical Officers across the UK *Start Active, Stay Active*¹¹ included a call for a concerted effort '*to create environments and conditions that make it easier for people to be more active and less sedentary*'. Such actions included prioritising cycling as a mode of travel; involving town and transport planners to facilitate safe walking and cycling to school; community-level programmes, including parks and playgrounds; programmes aimed at reducing sedentary behaviour, including leisure-time screen use; promoting movement in children in the early years, through interventions with nursery professionals; and programmes to stimulate play in young people, including low-cost play schemes open to all. However, the report also points out that by making physical activity promotion '*everybody's business*', it could become no-one's responsibility.¹¹

3.2. Methods and definitions

3.2.1 Questionnaire development

Questions on physical activity have been asked of children in previous HSE years, including 1997, 1998, 2002, and 2005 to 2008. The questions were also included in 1999 and 2004, when the focus was on children from minority ethnic groups. Over the years, the physical

activity questionnaire for children has been revised and amended in line with changing recommendations about the levels of physical activity they should be reaching. For the 2008 survey, the children's physical activity questions were extensively revised.²¹ The key changes were:

- A new division of sports and activities into formal and informal; and in addition to the activities on the show cards, participants were asked about any other similar activities they had done, and these were recorded individually
- For each activity undertaken, participants were asked on which specific day(s) in the last week they had done them, rather than on how many weekdays and weekend days
- For each day that the participant had done an activity, they were asked how long they had done it (in hours and minutes), rather than giving an average for all the days using half hour bands

The 2012 questionnaire was identical to that used in 2008. Tables 3.7, 3.11 and 3.19-3.20 in this chapter compare the 2012 results with those for 2008 (recalculated due to different age bands, as HSE 2008 included a larger sample of children).

3.2.2 Methods

Children aged 13-15 were asked questions directly about their physical activity, while the parents of children aged 2-12 were asked the questions on the child's behalf. Participants were asked to recall the days in the last week that they (or their children) did any physical activity apart from during school hours (curriculum time). The decision to exclude activities during school hours was taken for three main reasons: first, it was assumed that, generally speaking, the amount of physical activity done as part of the school curriculum would be similar across all children, for a given age, and thus would contribute a 'standard' amount of physical activity for each child. Secondly, activity done as part of the school curriculum would generally be compulsory and it was felt that the survey was concerned more with activities done out of choice. Thirdly, a large proportion of data collected was by parental proxy and it was thought that information about activities during school time would be less accurate than information collected about leisure time.

The questionnaire covers the seven day period before the day of interview; this meant that all children (or parents of younger children) were asked to recall physical activity for weekdays and weekend days, which typically differ in types and levels of physical activity. Additionally, as the survey follows an annual cycle, seasonal differences in physical activity are accounted for.

It is recognised that it is easier to remember formal, often planned, activity than informal or routine 'lifestyle' activity. When asked for details about the types of physical activity they did, participants were presented with two lists of activities. It was explained to them that one list included examples of informal activities and the other included examples of formal sports. For each activity that a parent or child identified, they were asked to recall on which days the child did it; and on each of the days recalled, how long they spent engaged in it (hours and minutes). Participants were able to recall more than one type of activity for each day.

Participants were also asked if they had been to school (including playgroup or nursery) in the last seven days, and if so on how many days. Those children who had been to school on at least one day in the last seven were asked if they had walked or cycled to and/or from school on any of those days; if so they were asked the number of days they walked or cycled and the duration of this journey.

The section on sedentary time estimates how much time on average children spent each day watching television, and in other sedentary time (e.g. reading, doing homework, drawing, using a computer or playing video games). This was recorded for a typical weekday and a typical weekend day. Total sedentary time is also estimated.

3.2.3 Assumptions underlying the intensity level classification of physical activities

The information collected covers primarily the type of activity, frequency and duration. For

some activities (any that were not listed on the card shown to participants), an additional question ‘When you did X, was it hard enough to make you out of breath or sweaty?’ was asked (as for adults), to provide an indication of the intensity level of the activity being reported. However, this has not been used in the analysis of results presented in this chapter, since there is no evidence to define how this information relates to intensity of physical activity in children. It has been assumed that all children’s reported activities were of at least moderate intensity, as in previous HSE years. This is likely to lead to an overestimate of the amount of time spent in at least moderate intensity activity, and thus an overestimate of the proportions of children meeting UK guidelines.

3.2.4 Definitions

Summary activity levels

This chapter reports results for children aged 2-15, in line with HSE practice. The classification of summary activity levels used in this chapter for children aged under 5 are shown in Table 3A, and for children aged 5-15 are shown in Table 3B.

Table 3A	
Classification of summary activity levels in pre-school children (aged under 5)	
Meets recommendations	At least 180 minutes (3 hours) of physical activity on all seven days in the last week
Some activity	60-179 minutes of physical activity 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

When analysing the data for the younger children (aged 2-4), it has been assumed that they can all walk unaided and therefore the guideline mentioned in section 3.1.2 applies to all HSE participants of that age.

Table 3B	
Classification of summary activity levels in children aged 5 to 15	
Meets recommendations	At least 60 minutes (1 hour) of moderate to vigorous intensity physical activity (MVPA) on all seven days in the last week
Some activity	30-59 minutes of moderate to vigorous intensity physical activity on all seven days in the last week
Low activity	Fewer than 30 minutes of moderate to vigorous intensity activity on each day, or moderate to vigorous intensity activity of 60 minutes or more on fewer than seven days in the last week

As indicated above, the classification in Table 3B assumes all reported activities are of at least moderate intensity but excludes active travel to/from school. The structure of the questions about active travel to school differs from the structure for all other types of physical activity, since journeys were not related to specific weekdays. Thus it is not possible to combine walking and cycling to/from school with other occasions of walking and cycling in assessing the total amount of activity undertaken each day for the summary activity levels. The summary variable also excludes activity while at school, whether formal lessons or other activity. Overall, the summary variable therefore underestimates total time being physically active but probably overestimates time spent in MVPA.

Types of activity

To assist participants with the recall of all activities they did over a seven day period, and to focus them on the types of activity of interest, sports and activities were classified as informal (active play) or formal, such as organised games (e.g. football, basketball). The

groups of activities used for analysis in this chapter include:

- *Walking (excluding walking to or from school):* Walking is presented as part of the informal group of activities. It has been analysed separately as an activity of policy interest. The walks included are of any duration.
- *Informal activities:* Activities in this group include cycling (excluding to/from school), dancing, skating, trampolining, hopscotch, active play, skipping rope, and housework and gardening.
- *Formal sports:* Activities in this group include any organised team sports such as football, rugby, cricket, and netball, as well as running or athletics, all types of swimming, gymnastics, weight training, aerobics and tennis.

Where the ‘total physical activity’ variable has been included in the tables, it is an aggregate of the grouped activities listed above.

Walking or cycling to/from school is reported separately from other walking and cycling in these analyses, because active travel to and from school is an important opportunity for physical activity by children.

3.2.5 Summary activity levels in 2008

The summary activity levels presented in the 2008 report were calculated incorrectly, with some double-counting of activity.²² The impact of this error was to over-estimate the proportion meeting recommendations by around 3%; the impact was greater between those in the ‘some activity’ and ‘low activity’ groups, with around 11% fewer in the ‘low activity’ group than there should have been. This report shows the corrected summary activity levels for 2008, and the 2012 summary activity levels calculated in the same way. Note that the 2008 report showed results for all children aged 2-15; in the 2012 report, results are shown separately for children aged 2-4 and 5-15, reflecting the different recommendations for these age groups.

3.3. Summary activity levels

3.3.1 Summary activity levels in children aged 2-4

In 2012, a similar proportion of boys and girls aged 2-4 (9% and 10% respectively) were classified as meeting the current guidelines for children aged under 5 of at least three hours of physical activity per day. 84% of children of this age were classified in the ‘low activity’ group, meaning that they did less than an hour of activity a day, or did not do sufficient activity each day.

The proportion of children meeting this guideline did not vary significantly by BMI category, as shown in Table 3C below.

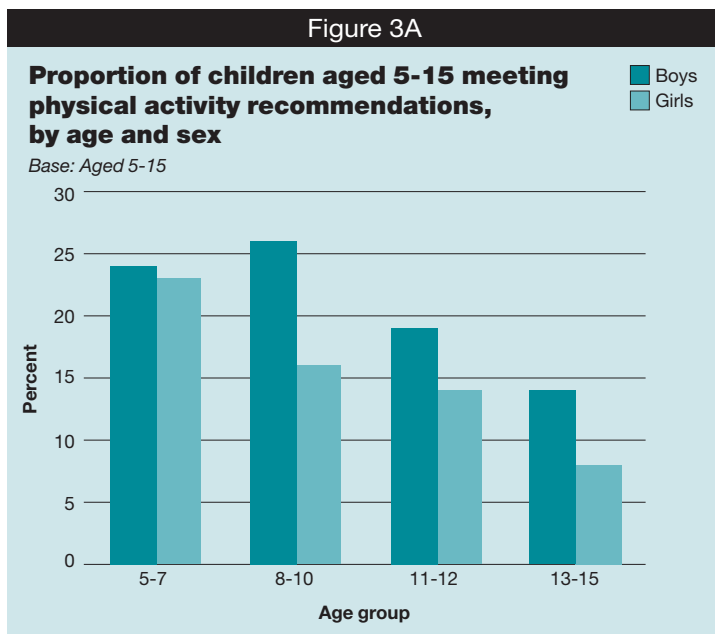
Tables 3.1, 3C

	Overweight or obese	Neither overweight nor obese
	%	%
Meets recommendations ^a	11	9
Some activity	10	7
Low activity	79	84

^a Meets recommendations: Physically active for at least 180 minutes (3hours) every day.
Some activity: Physically active for 60-179 minutes every day.
Low activity: Lower levels of physical activity.

3.3.2 Summary activity levels in children aged 5-15, by age and sex

A higher proportion of boys than girls aged 5-15 (21% and 16% respectively) were classified as meeting the current guideline for children and young people of at least one hour of moderately intensive physical activity per day. Among both sexes, the proportion meeting guidelines was lower in older children, as shown in Figure 3A. The proportion of boys meeting recommendations decreased from 24% in those aged 5-7 to 14% aged 13-15. For girls the decrease was from 23% to 8% respectively. Overall, 39% of boys and 45% of girls aged 5-15 were classified as having low levels of activity (defined in section 3.2.4, less than half an hour of activity a day, or insufficient activity on each day). **Table 3.2, Figure 3A**



3.3.3 Summary activity levels in children aged 5-15, by region

Although the proportion of children aged 5-15 meeting current guidelines appeared to vary by region, these differences were not significant; the base sizes for each region are small and margins of error are wide. **Table 3.3**

3.3.4 Summary activity levels in children aged 5-15, by equivalised household income

There was no significant variation by equivalised household income in the proportion of children aged 5-15 achieving current recommendations. However, as shown in Figure 3B, the proportion of both boys and girls in the low activity group was higher in lower quintiles than higher quintiles of equivalised household income. The proportion of boys classified in the low activity group increased from 26% in the highest two quintiles to 47% in the lowest two quintiles. Among girls the increase was from 35% in the highest quintile to 49% in the lowest. **Table 3.4, Figure 3B**

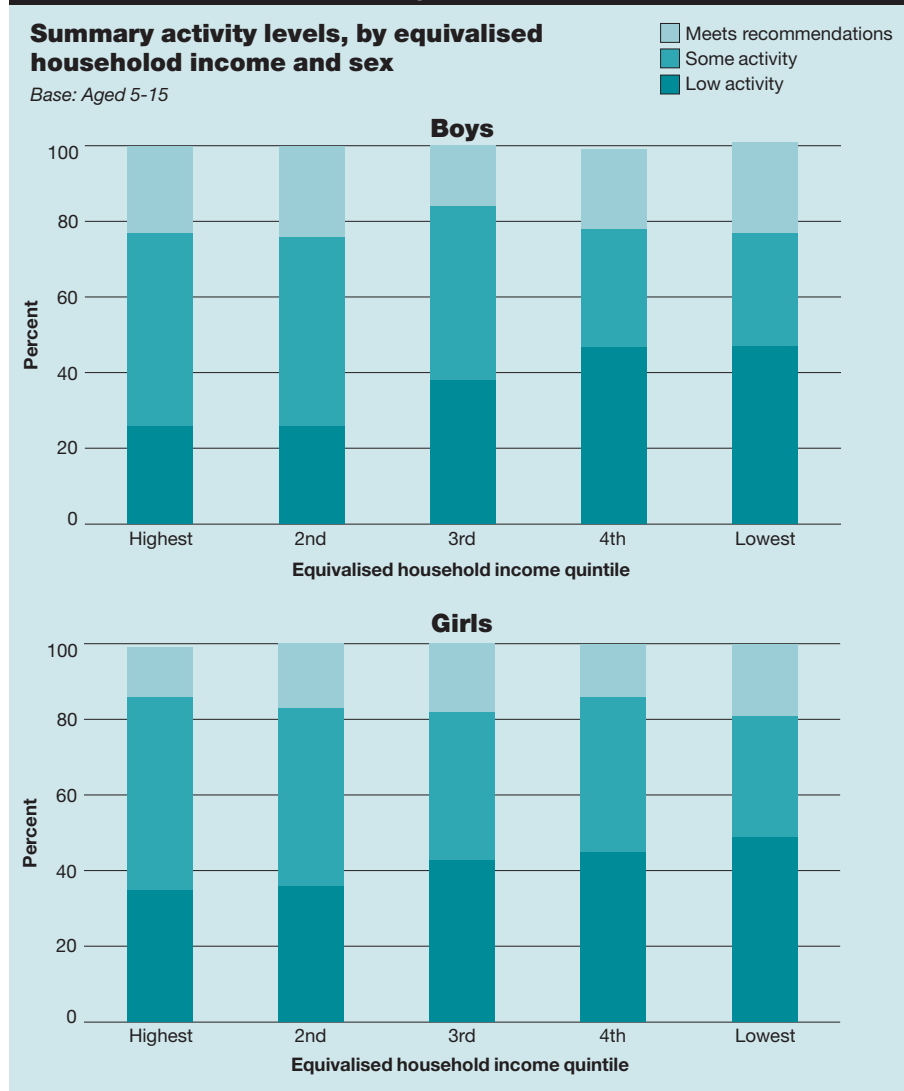
3.3.5 Summary activity levels in children aged 5-15, by BMI category

Table 3.5 shows summary activity levels by category of BMI (Body Mass Index, see Chapter 11). Due to small base sizes, children classified as overweight or obese have been combined to form one group. There was no significant variation in the proportions meeting current recommendations by BMI category, either among boys or girls, or among the 5-10, 11-15 and 5-15 age groups. **Table 3.5**

3.3.6 Children's physical activity levels in relation to parental physical activity

Children's physical activity levels were analysed according to the physical activity level of their parents. Parental physical activity was classified in four categories according to the weekly time spent in activities of at least moderate intensity (see Chapter 2, Physical activity

Figure 3B



in adults). Due to small numbers, however, the four adult activity levels were combined into two groups for parents for this table: those that met the adult MVPA guidelines (reported 150 minutes per week of moderately intensive physical activity, 75 minutes per week of vigorous intensity activity, or an equivalent combination of the two) and those who were less active than this.

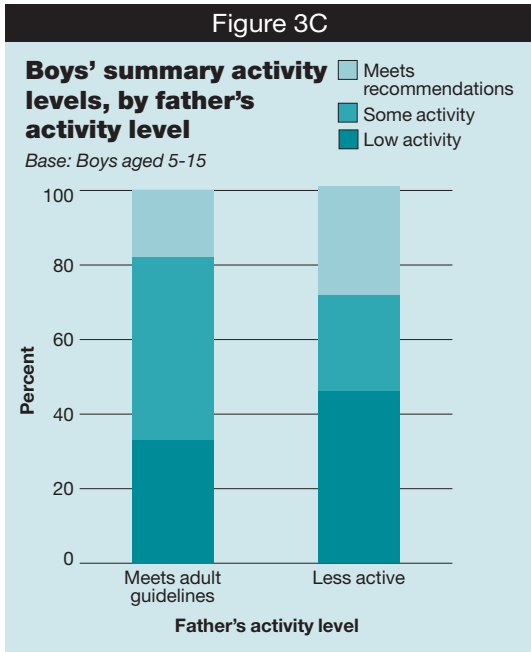
Overall, 18% of boys aged 5-15 met the physical activity guidelines for children and young people if their father met the MVPA guideline for adults; this compared with 29% of boys with fathers not meeting the guideline. However, more boys whose father met the MVPA guideline were classified in the 'some activity' group (49%), whereas more boys with less active fathers were in the 'low activity' group (46%), as shown in Figure 3C.

There was no significant variation in the proportion meeting the recommendations according to mothers' activity levels. Among girls, the activity level of parents made relatively little difference to the proportion meeting recommendations. **Table 3.6, Figure 3C**

3.3.7 Summary activity levels in 2008 and 2012

Table 3.7 shows summary activity levels of children aged 5-15 in 2008 and 2012.²² Among boys, there was a significant decrease in the proportion meeting recommendations, falling from 28% in 2008 to 21% in 2012. The corresponding change among girls was not significant, with 19% in 2008 and 16% in 2012 meeting recommendations.

Among both boys and girls, the decrease in the proportion meeting recommendations was particularly marked in the oldest age group, as shown in Figure 3D. 28% of boys and 14% of girls aged 13-15 met the current guidelines in 2008, compared with 14% and 8%



respectively in 2012. It should be noted that (in both years) these estimates exclude both activities during school hours and active travel to and from school, and thus potentially underestimate the proportion of children meeting current recommendations.

Table 3.7, Figure 3D



3.4. Participation in different activities in the last week

3.4.1 Participation in walking and cycling to school

This section refers to children who had attended school, playgroup or nursery (hereafter called 'school') in the last seven days. Around two thirds of both boys and girls aged 2-15 walked to or from school on at least one occasion in the last week (64% and 67% respectively). Older children were more likely than those aged 2-4 to walk to or from school on any occasion in the last week.

More boys than girls aged 2-15 (6% and 1% respectively) cycled to or from school on at least one day in the last week. There was relatively little difference across ages for both sexes.

Similar proportions of boys and girls aged 2-15 who went to school in the last week walked to or from school every day (41% and 44% respectively). The proportion walking to or from school every day was a little higher among children aged 5-15 (45% of boys and 49%-50% of girls), while pre-school aged children (2-4) were less likely to have done so (25% of boys and 21% of girls).

Tables 3.8, 3.9

Amount of time spent in active travel

The average amount of time children spent walking to or from school in the last week was 1.1 hours, equating to an average of 13 minutes per school day for a full five day week. Children aged 11-15 averaged the most time walking to or from school, 1.4 hours in the last week for both boys and girls. Boys aged 2-4 spent a mean of 0.7 hours, and girls of this age a mean of 0.8 hours walking to or from school. This lower average is likely to reflect the fact that they attended school on fewer days on average, rather than necessarily walking for a shorter time.

Table 3.10

Active travel in 2008 and 2012

Table 3.11 shows children's participation in active travel to/from school in 2008 and 2012. The proportion of both boys and girls who had walked and/or cycled to or from school on at least one occasion in the last week was very similar in 2008 and 2012.

Similarly, the average number of days both boys and girls aged 2-15 spent walking and cycling to or from school showed no significant change between the two years. Among girls aged 5-10, there was a small but significant increase in the mean number of days that they walked to school, from 2.7 days in 2008 to 3.1 days in 2012.

Table 3.11

3.4.2 Participation in formal and informal activities

Participation in different activities, by age and sex

Table 3.12 shows the proportion of children who participated in different types of physical activity in the last week. These types of activity include walking (not including walking to or from school), informal activities and formal sports (see section 3.2.4 for further definitions of these).

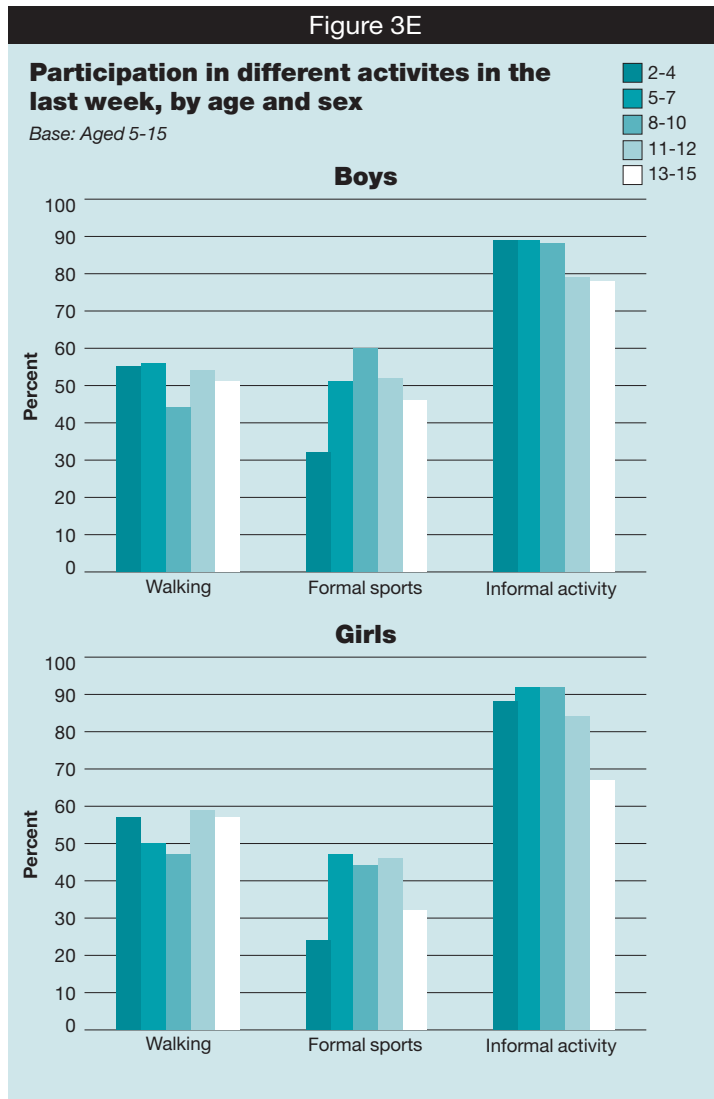
Overall, 93% of boys and 92% of girls had participated in any type of physical activity in the last week. Boys were more likely than girls to have participated in formal sports (48% and 38% respectively) on at least one occasion in the last week. Participation in walking (52% of boys and 54% of girls) and informal activity (85% among both sexes) were similar. As Figure 3E shows, participation in any informal activity decreased above the age of 10 among both boys and girls; participation in formal sports increased from a relatively low proportion of children aged 2-4 but decreased among children aged 13-15.

Table 3.12, Figure 3E

Number of days' participation

The number of days of participation in the last week was established for the different types of activities. Overall, boys averaged more days of participation in informal activities (4.0 days) and formal sports (1.3 days) than girls (3.8 and 0.9 respectively).

Figure 3E



The average number of days spent on each activity in the last week varied by age in similar ways for boys and girls. Younger and older children (aged 2-4 and 11-15) participated in walking on more days than those in the middle age groups. On average, younger children took part in informal activities on more days than older children, with participation falling steadily with age. Not surprisingly, older children participated in formal sports on more days than their younger counterparts. For boys, the average number of days spent undertaking formal sports increased steadily with age up to the age of 10 and then levelled off; girls aged 5-15 participated with similar frequency regardless of age group.

Table 3.13

Time spent in the last week

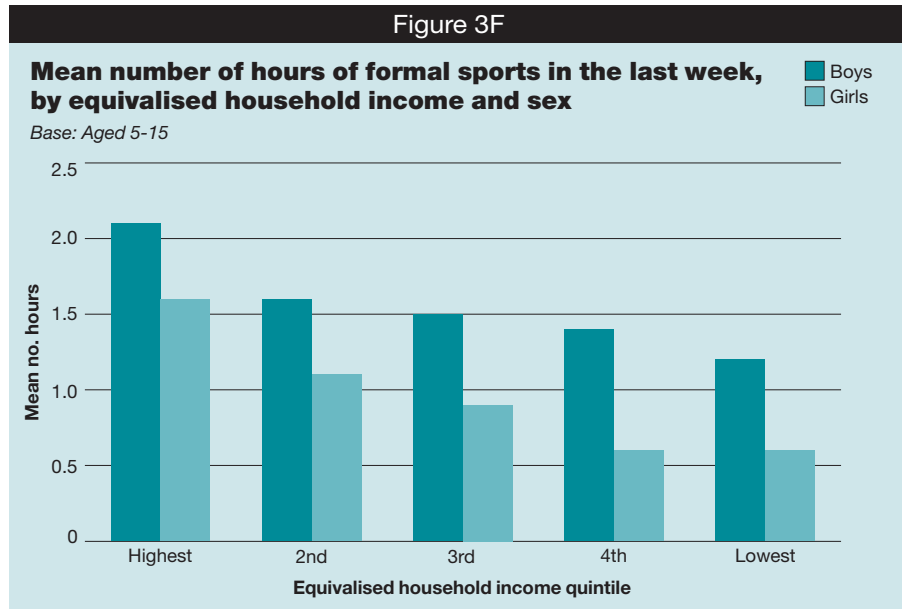
The amount of time children spent each day on each type of activity was aggregated to give a weekly total, within type of activity (walking, informal and formal) and overall. 52% of boys and 46% of girls aged 2-15 participated in at least seven hours of any type of physical activity. Equivalent figures for children aged 5-15 were 51% and 45% respectively (data not shown).

Boys spent more time than girls participating in formal sports in the last week (mean 1.5 and 0.8 hours respectively). Among boys, the mean time spent in informal activity in the last week fell from 9.9 hours for those aged 2-4 to 4.8 hours for those aged 13-15. Among girls, this decrease with age was more marked, falling among the same ages from 8.5 to 2.3 hours. As would be expected, the age pattern for participation in any activity was similar, as informal activities provide the largest contribution to the amount of time spent in physical activity.

Table 3.14

Time spent in the last week, by equivalised household income

Table 3.15 shows the average number of hours children spent participating in different activities in the last week by equivalised household income quintile. For both boys and girls, there was a gradual increase in the average number of hours spent in formal sports in the last week as equivalised household income quintile increased, as shown in Figure 3F. This increase was from 1.2 hours for boys and 0.6 hours for girls in the lowest income quintile to 2.1 hours and 1.6 hours respectively in the highest income quintile.



The average number of hours spent walking in the last week varied significantly by income. It was higher among children in the highest income quintile (1.9 hours for both boys and girls) than among those in the lowest income quintile (1.5 hours and 1.3 hours respectively), although the highest levels were seen in other groups. Average hours of informal activity did not vary significantly across the income groups.

Table 3.15, Figure 3F

3.4.3 Total time spent on activities, including active travel, in 2008 and 2012

As indicated in Section 3.4.1, there was no significant change between 2008 and 2012 in either the proportion of children participating in walking or cycling to or from school, nor in the number of days on which children undertook such active travel.

Table 3D shows the average number of minutes per week spent walking and cycling to or from school, and on any other physical activity (informal and formal), in 2008 and 2012. The total amount of time spent on physical activity (the sum of these activities) is also shown in Table 3D. It should be noted that active travel to or from school was not used to assess the total amount of activity for the summary of activity levels shown in Tables 3.1-3.7 (see section 3.4.1).

Among both boys and girls, the average amount of time spent per week in total physical activity decreased significantly between the two surveys in each age group. This decrease reflects falls in the amount of participation in informal/formal activities, while there was no significant change in the amount of time spent in active travel to or from school.

Table 3D

3.5. Sedentary behaviour

3.5.1 Sedentary time, by age and sex

Sedentary behaviour has been classified into either television viewing time or other sedentary time on a typical weekday and weekend day. These categories have also been combined to provide a total measure of sedentary time. Participants were asked about

Table 3D

Trends in total activity, by age and sex, 2008 and 2012

Average time spent in the last week (minutes)	2008				2012			
	2-4	5-10	11-15	2-15	2-4	5-10	11-15	2-15
Boys								
Time spent on active travel to/from school	28	49	67	51	32	51	72	54
Time spent on any other physical activity	759	670	743	716	726	560	562	596
<i>Total</i>	<i>787</i>	<i>719</i>	<i>810</i>	<i>767</i>	<i>748</i>	<i>615</i>	<i>635</i>	<i>651</i>
Girls								
Time spent on active travel to/from school	33	45	64	50	31	52	67	52
Time spent on any other physical activity	686	634	480	588	645	499	403	500
<i>Total</i>	<i>719</i>	<i>680</i>	<i>544</i>	<i>638</i>	<i>675</i>	<i>555</i>	<i>468</i>	<i>553</i>

sedentary time after school, and therefore any sedentary time during the school day is not included.

Mean total sedentary time was similar for boys and girls on weekdays (3.3 hours and 3.2 hours respectively) and weekend days (4.2 hours and 4.0 hours respectively).

Average sedentary time generally increased with age, whether for TV viewing or other sedentary time, and whether for weekdays or weekend days. The average time spent watching TV on weekdays increased steadily with age in boys (from 1.5 hours for those aged 2-4 to 1.8 hours for those aged 13-15); however, among girls, the increase with age was steeper (1.5 to 2.2 hours). Conversely, on weekend days, the increase in other sedentary time as age increased was steepest for boys (from 1.4 hours for those aged 2-4 to 2.9 hours for those aged 13-15, compared with 1.4 to 2.4 hours in girls).

The proportion of children who reported four or more hours of TV viewing or of other sedentary time on a typical day (whether during the week or at the weekend), or six or more hours of total sedentary time, also varied with age. Figures 3G and 3H show the different patterns. On weekdays, the proportion of children sedentary for six or more hours increased steeply in older children. At weekends, the proportion who spent six or more hours being sedentary increased steadily with age, ranging from 10% of boys and 9% of girls aged 2-4 to 43% of boys and 37% of girls aged 13-15.

Table 3.16, Figures 3G, 3H

Figure 3G

Proportion who were sedentary for 6 or more hours per day, by age and sex: weekdays

Base: Aged 5-15

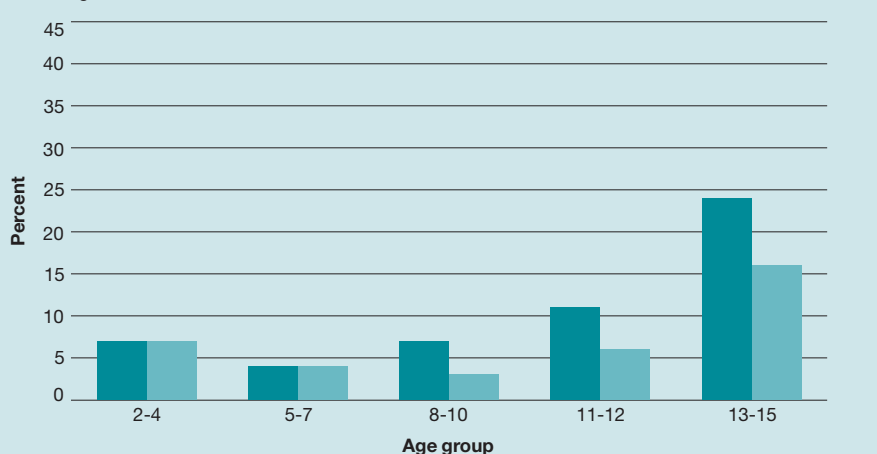
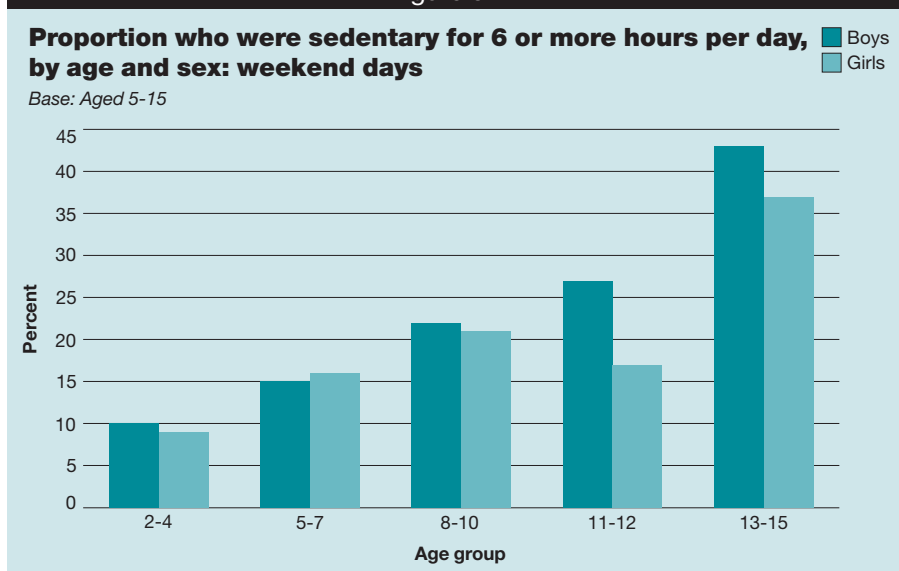


Figure 3H



3.5.2 Sedentary time by equivalised household income

For both boys and girls, the mean number of hours spent watching TV on weekdays and at weekends increased as equivalised household income decreased. On weekdays, in the highest income quintile boys averaged 1.2 hours and girls averaged 1.4 hours of TV viewing, while in the lowest quintile they averaged 1.9 and 2.0 hours respectively. At weekends, the equivalent averages were 1.8 and 2.0 hours in the highest income quintile, and 2.4 hours for both sexes in the lowest quintile.

Table 3.17

3.5.3 Sedentary time by BMI status

Table 3.18 shows the average number of hours of sedentary time on a typical weekday or weekend day by BMI category. Due to small base sizes, children classified as overweight or obese have been combined to form one group. The average number of hours of sedentary time did not vary significantly across the BMI categories, either among boys and girls or across the age groups.

Table 3.18

3.5.4 Sedentary time in 2008 and 2012

Table 3.19 shows the average number of hours of sedentary time on weekdays and at weekends in 2008 and 2012. Among children aged 2-10, the average number of hours of sedentary time on a typical weekday decreased from 3.0 hours for both sexes in 2008 to 2.9 hours for boys and 2.8 hours for girls in 2012. For children aged 11-15, the change in average sedentary time at weekends varied by sex. Among boys, the average number of sedentary hours on weekend days increased from 4.8 hours in 2008 to 5.0 hours in 2012; for girls, average sedentary time on weekend days decreased from 4.8 to 4.5 hours.

Table 3.20 shows average sedentary time on weekdays and at weekends in 2008 and 2012 by BMI category. Among boys aged 2-10 and 11-15, the average number of sedentary hours on both weekdays and at weekends showed no significant change over this time period. For girls aged 2-10 classed as overweight or obese, the mean number of sedentary hours on a typical weekday decreased from 3.3 hours in 2008 to 2.7 hours in 2012, compared with 2.9 hours in both years for those not classed as either overweight or obese.

Tables 3.19, 3.20

3.6. Discussion

3.6.1 Activity levels in children

Patterns in meeting recommendations

In HSE 2012, only 9% of boys and 10% of girls aged 2-4 achieved the guidelines for children under 5 of at least three hours physical activity per day. Overall, 21% of boys and 16% of girls aged 5-15 achieved the guidelines of at least one hour of moderately intensive physical activity per day. Although both the HSE summary variable and the aggregated time spent in 'total physical activity' in this report overestimate the amount of active time that is actually time being MVPA, they are an underestimate of overall activity as they exclude active travel to/from school, time being active during breaks at school, and formal PE lessons at school.

The physical activity recommendations for children aged 5-15 specify that they should do at least an hour of activity *each* day, rather than a total of seven hours of activity over a week, which might involve doing more than an hour on some days and less than an hour on others.²³ It should be noted that the proportions of children in HSE 2012 who reported doing at least seven hours of activity in the last week (51% of boys and 45% of girls aged 5-15) were higher than the proportions that met the recommendations for an hour of activity *daily* (21% of boys and 16% of girls aged 5-15). Among those children aged 5-15 who participated in at least seven hours of any type of physical activity in the last week, only 40% of boys and 35% of girls met current recommendations for the daily as well as weekly total.

The large increase in the proportion of children meeting the recommendations from those aged 2-4 to those aged 5-7 is probably largely due both to the recommendations being three hours daily for the youngest children, falling to one hour daily for children aged 5 and over and thus being easier to meet. However, the younger the child, the greater the proportion of activity is 'informal play', which is very difficult to assess by questionnaire, usually comprising frequent but brief activity bouts.²⁴ The results of HSE 2008 demonstrated that although questionnaires overestimate time spent being moderately or vigorously active in older children, they underestimate activity levels in young children.²⁵

Among children aged 5-15, the proportion meeting guidelines decreased with age, as is well recognised in many populations.^{21,26,27} The proportion of children meeting recommendations did not vary by equivalised household income quintile or BMI category. However, both boys and girls in the lowest equivalised household income quintile were more likely than those in the highest income quintile to be classified in the low activity group.

In general, as is also found in many countries,^{21,28,29} boys are more active than girls, with the difference increasing with age group, as the decline in activity levels with age starts earlier in girls. The sex difference in activity levels has been found elsewhere even among those aged 3-5,³⁰ although in HSE 2012, the sex difference did not appear until the 8-10 year age group.

Comparisons over time

Comparisons between 2008 and 2012 showed a significant decrease in the proportion of boys aged 5-15 meeting current guidelines. For girls of the same age, there was not a significant change. For both sexes, the decrease in the proportion meeting recommendations was more marked in the oldest age group (13-15). It should be noted that these estimates exclude both activities during school hours and active travel to and from school, and thus potentially underestimate the proportion of children meeting current recommendations. Overall, levels of active travel to and from school showed no significant change over time. The proportion of children who participated in at least seven hours of any type of physical activity in the last week was also similar in both years, possibly suggesting stability in the overall volume of physical activity across the week.

Comparisons with other studies

Other studies have found that greater physical activity levels occur in children who spend more time outdoors, and whose parents spend more time being active with them.³¹ Among pre-school children in childcare, the quality of the childcare, training of the staff, the availability of fixed play equipment (preferably positioned to encourage movement from one place to another to use the equipment), and the use of indoor spaces for motor activities are each related to greater physical activity levels.³²

Although a recent review found that interventions to increase physical activity among pre-school children do not work,³³ a number of recent studies have found small and lasting benefits, for example from a 'move and learn' intervention.³⁴ This is particularly important as another recent review found that improvements in pre-school children's locomotor skills occur in response to structured activities but not informal play.³⁵ One study found that most children in their early school years do not have adequate fundamental motor skills (locomotor, eg running, jumping; manipulative/object control such as catching and throwing; and balance and twisting).³⁶ The rationale for physical activity interventions for pre-school children, and issues to consider regarding these, have been summarised recently.³⁷

Studies in many countries, as well as this and previous HSE reports, demonstrate lower physical activity levels in older children, particularly among girls. Longitudinal studies have shown that higher levels of previous physical activity and greater self-efficacy (belief in one's capabilities to achieve a goal or an outcome) are associated with smaller declines in activity among children aged 10-13, while greater self-efficacy, greater perceived behavioural control, and support for physical activity were important among those aged 14-18.³⁸

Recently, the World Health Organisation recommended that the 60 minutes per day of MVPA for children should be additional to, not including, everyday activity.³⁹ As accelerometry⁴⁰ studies have shown that even the most inactive children accumulate at least half an hour of MVPA daily, this change implies a significant increase in recommended activity levels in school-aged children.⁷

3.6.2 Participation in different types of activities

Overall, more than 90% of children had participated in some physical activity in the last week, while around half had been physically active for at least seven hours in the last week. Informal activities provided the largest contribution to the amount of time children had spent being physically active; however, participation in informal activities decreased with age, particularly among girls.

Both boys and girls in the highest equivalised household income quintile spent more hours on average in formal sports than their counterparts in the lowest income quintile. This inequality may in part reflect different levels of access to formal sport, particularly those formal activities for which participation is costly, which are not locally available, or which require specialist equipment or clothing.

The importance of fundamental motor skills is critical in older children as well as those in the earliest years of development. Participation in organised sports and activities, but not in informal activities, is also associated with better fundamental motor skills in adolescents.⁴¹ This may not be causal, as it is possible that those with better motor skills choose to be more active; that would be an additional argument for improving such skills in the youngest children, if it facilitates continued participation in physical activity as they get older.

3.6.3 Active travel to school

Two thirds of children who had attended school, playgroup or nursery in the last week had walked to or from school on at least one occasion; two fifths of children walked to or from school every day. Fewer than 5% of children cycled to or from school on at least one occasion in the past week. Levels of active travel to and from school showed no significant

change over time, despite many campaigns and local interventions to increase active travel, including Safe Routes to School, Bikeability training,⁴² and Walk to School week. However, very limited funding of interventions mean that even if highly effective, the reach of campaigns such as Bike It! is very low.

3.6.4 Sedentary behaviour

Patterns of sedentary behaviour in 2012 were generally similar to those reported in HSE 2008. A socio-economic gradient in TV viewing on both weekdays and weekend days was observed, with the highest levels among children in the lowest equivalised household income quintile. Among children aged 2-10, average sedentary time on weekdays in 2012 was 0.1 and 0.2 hours lower than in 2008 for boys and girls, respectively.

Best practice guidelines for pre-school childcare include never, or seldom, having a television switched on.³² Within the home, providing a television in the child's bedroom is substantially related to increased screen-time,⁴³ even in pre-school children, in whom it is also related to obesity risk.⁴⁴ Among school-aged children, socio-economic position, parental television viewing, and rules permitting watching television at mealtime are related to prevalence of greater television viewing. These differed from the correlates of low physical activity, emphasising that sedentary behaviour and inadequate physical activity are not simply aspects of the same behaviour.⁴⁵

References and notes

- 1 Lake AM. *Pediatric obesity: preventive measures in early childhood*. JPEN J Parenter Enteral Nutr. 2012;**36**(1 Suppl):76S-80S.
- 2 Telama R. *Tracking of physical activity from childhood to adulthood: a review*. Obes Facts 2009;**2**:187-95.
- 3 Timmons BW, LeBlanc AG, Carson V et al. *Systematic review of physical activity and health in the early years (aged 0–4 years)*. Appl Physiol Nutr Metab. 2012;**37**:773-92.
- 4 Loprinzi PD, Cardinal BJ, Loprinzi KL et al. *Benefits and environmental determinants of physical activity in children and adolescents*. Obes Facts 2012;**5**:597-610.
- 5 Burkhalter TM, Hillman CH. *A narrative review of physical activity, nutrition, and obesity to cognition and scholastic performance across the human lifespan*. Adv Nutr. 2011;**2**:201S-6S.
- 6 Chaddock L, Pontifex MB, Hillman CH et al. *A review of the relation of aerobic fitness and physical activity to brain structure and function in children*. J Int Neuropsychol Soc. 2011;**17**:975-85.
- 7 Andersen LB, Riddoch C, Kriemler S, Hills AP. *Physical activity and cardiovascular risk factors in children*. Br J Sports Med. 2011;**45**:871-6.
- 8 Tompkins CL, Moran K, Preedom S, Brock DW. *Physical activity-induced improvements in markers of insulin resistance in overweight and obese children and adolescents*. Curr Diabetes Rev. 2011;**7**:164-70.
- 9 Gunter KB, Almstedt HC, Janz KF. *Physical activity in childhood may be the key to optimizing lifespan skeletal health*. Exerc Sport Sci Rev. 2012;**40**:13–21.
- 10 Bull FC and the Expert Working Groups. *Physical Activity Guidelines in the UK: Review and Recommendations*. School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, 2010.
- 11 Department of Health. *Start Active, Stay Active. A report on physical activity for health from the four home countries' Chief Medical Officers*. DH, London, 2011. www.bhfactive.org.uk/userfiles/Documents/startactvestayactive.pdf
- 12 Chief Medical Officers of the UK. *Factsheet 1. Physical activity guidelines for early years (under 5s) – for infants who are not yet walking*. www.gov.uk/government/uploads/system/uploads/attachment_data/file/135113/dh_128142.pdf.pdf
- 13 Chief Medical Officers of the UK. *Factsheet 2. Physical activity guidelines for early years (under 5s) – for children who are capable of walking*. www.gov.uk/government/uploads/system/uploads/attachment_data/file/135114/dh_128143.pdf.pdf
- 14 Chief Medical Officers of the UK. *Factsheet 3. Physical activity guidelines for children and young people (5-18 years)*. www.gov.uk/government/uploads/system/uploads/attachment_data/file/213739/dh_128144.pdf
- 15 Biddle S, Cavill N, Ekelund U et al. *Sedentary Behaviour and Obesity: Review of the Current Scientific Evidence*. Department of Health, London, 2010. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/135121/dh_128225.pdf
- 16 American Academy of Pediatrics, Committee on Public Education. *American Academy of Pediatrics: Children, adolescents, and television*. Pediatrics 2001;**107**:423-6.

- 17 Originally a concept from the USA, also promoted in England for instance by Sustrans. Sustrans is a charity working with communities, policy makers and partner organisations, including local authorities and the education sector, to encourage active travel choices. See www.sustrans.org.uk
- 18 Fenton M. *Community design and policies for free-range children: creating environments that support routine physical activity*. *Child Obes.* 2012;**8**:44-51.
- 19 Roth M, Millett C, Mindell JS. *The contribution of active commuting to school to children's physical activity levels*. *Prev Med.* 2012;**54**:134-139.
- 20 Ridgers ND, Salmon J, Parrish AM et al. *Physical activity during school recess: a systematic review*. *Am J Prev Med.* 2012;**43**:320-8.
- 21 Pickup D, Gunning N. *Physical activity in children*. Chapter 5 in Craig R, Mindell J (eds). *Health Survey for England 2008*. Health and Social Care Information Centre, Leeds, 2009. www.hscic.gov.uk/pubs/hse08physicalactivity
- 22 The summary activity levels were calculated by summing the reported activity for each day of the week to arrive at a weekly total. In 2008, for some days of the week, the variable was correctly derived by starting with zero activity, and then adding in all formal activities and all informal activities. For other days of the week, instead of starting with zero activity, the starting point was the sum of formal and informal activities, and these were then incorrectly added in again. Thus the overall summary activity variable previously reported for 2008 double-counted activity on five days of the week. Corrected figures are included in the 2012 report. The original (incorrect) and corrected figures are shown below:

Original and corrected summary activity levels among children aged 2-15, 2008

Base: Aged 2-15 2008

Summary activity level	Original	Corrected
	(incorrect)	
	%	%
Boys		
Meets recommendations	32	29
Some activity	44	38
Low activity	24	33

Girls		
Meets recommendations	24	21
Some activity	47	37
Low activity	29	42

Bases (unweighted)

Boys	3493	3493
Girls	3545	3545

Bases (weighted)

Boys	3332	3332
Girls	3168	3168

- 23 This is similar to the previous adult recommendations, which specified that activity should be on at least five days per week, whereas the current adult recommendations have now been changed to relate to a weekly total which may not be equally spread throughout the week.
- 24 Mindell JS, Coombs N, Stamatakis E. *Measuring physical activity in children and adolescents for dietary surveys: practicalities, problems and pitfalls*. Accepted by *Proc Nutr Soc*.
- 25 Eslinger D, Hall J. *Accelerometry in children*. Chapter 6 in Craig R, Mindell J (eds). *Health Survey for England 2008*. Health and Social Care Information Centre, Leeds, 2009.
- 26 Nader PR, Bradley RH, Houts RM et al. *Moderate-to-vigorous physical activity from ages 9 to 15 years*. *JAMA.* 2008;**300**:295-305.
- 27 Riddoch CJ, Bo Andersen L, Wedderkopp N et al. *Physical activity levels and patterns of 9- and 15-yr-old European children*. *Med Sci Sports Exerc.* 2004;**36**:86-92.
- 28 Griffiths LJ, Cortina-Borja M, Sera F et al. *How active are our children? Findings from the Millenium Cohort Study*. *BMJ Open* 2013;**3**:e002893.
- 29 Ekelund U, Luan J, Sherar LB et al. *Moderate to vigorous physical activity and sedentary time and cardiometabolic risk factors in children and adolescents*. *JAMA.* 2012;**307**:704-712.
- 30 Hinkley T, Salmon J, Okely AD et al. *Correlates of preschool children's physical activity*. *Am J Prev Med.* 2012;**43**:159-67.
- 31 Hinkley T, Crawford D, Salmon J et al. *Preschool children and physical activity: a review of correlates*. *Am J Prev Med.* 2008;**34**:435-441.e7.

- 32 McWilliams C, Ball SC, Benjamin SE. *Best-Practice Guidelines for Physical Activity at Child Care*. Pediatrics 2009;**124**:1650-9.
- 33 Metcalf B, Henley W, Wilkin T. *Effectiveness of intervention on physical activity of children: systematic review and meta-analysis of controlled trials with objectively measured outcomes (EarlyBird 54)*. BMJ. 2012;**345**:e5888.
- 34 Trost SG, Fees B, Dzeqaltowski D. *Feasibility and efficacy of a "move and learn" physical activity curriculum in preschool children*. J Phys Act Health 2008;**5**:88-103.
- 35 Logan SW, Robinson LE, Wilson AE et al. *Getting the fundamentals of movement: a meta-analysis of the effectiveness of motor skill interventions in children*. Child Care Health Dev. 2012;**38**:305-15.
- 36 Okely AD, Booth ML. *Mastery of fundamental movement skills among children in New South Wales: prevalence and sociodemographic distribution*. J Sci Med Sport 2004;**7**:358-72.
- 37 Goldfield GS, Harvey A, Grattan K et al. *Physical activity promotion in the preschool years: a critical period to intervene*. Int J Environ Res Public Health 2012;**9**:1326-42.
- 38 Craggs C, Corder K, van Sluijs EM et al. *Determinants of change in physical activity in children and adolescents: a systematic review*. Am J Prev Med. 2011;**40**:645-58.
- 39 World Health Organization. *Global Recommendations on Physical Activity for Health*. WHO, Switzerland, 2010.
- 40 Accelerometry is widely used in research into physical activity as it provides an objective measure of activity levels. Measurements are recorded by accelerometers, small devices which can be worn by individuals as they go about their daily lives, which measure movement in one or more planes. The advantage of accelerometry is that it provides accurate information on the frequency, intensity, and duration of both physical activity and sedentary behaviour which is difficult to capture with retrospective self-report questions.
- 41 Okely AD, Booth ML, Patterson JW. *Relationship of physical activity to fundamental movement skills among adolescents*. Med Sci Sports Exerc. 2001;**33**:1899-1904.
- 42 www.dft.gov.uk/bikeability/
- 43 Wiecha JL, Sobol AM, Peterson KE et al. *Household Television Access: Associations With Screen Time, Reading, and Homework Among Youth*. Ambulatory Pediatrics 2001;**1**:244-51.
- 44 Dennison BA, Erb TA, Jenkins PL. *Television Viewing and Television in Bedroom Associated With Overweight Risk Among Low-Income Preschool Children*. Pediatrics 2002;**109**:1028-35.
- 45 Salmon J, Timperio A, Telford A et al. *Association of family environment with children's television viewing and with low level of physical activity*. Obesity Res. 2005;**13**:1939-51.

Tables

- | | |
|---|---|
| <p>3.1 Summary of activity levels among children aged 2-4, by sex</p> <p>3.2 Summary of activity levels among children aged 5-15, by age and sex</p> <p>3.3 Summary of activity levels among children aged 5-15, by region and sex</p> <p>3.4 Summary of activity levels among children aged 5-15, by equivalised household income and sex</p> <p>3.5 Summary of activity levels among children aged 5-15, by BMI category, age and sex</p> <p>3.6 Summary of activity levels among children aged 5-15, by parents' summary activity levels, age and sex</p> <p>3.7 Summary activity levels among children aged 5-15, 2008 and 2012, by age and sex</p> <p>3.8 Summary of children's participation in active travel to/from school, by age and sex</p> <p>3.9 Number of days walking or cycling to/from school in the last week, by age and sex</p> <p>3.10 Time spent walking or cycling to/from school in the last week, by age and sex</p> <p>3.11 Children's participation in active travel to/from school, 2008 and 2012, by age and sex</p> <p>3.12 Summary of children's participation in different activities in the last week, by age and sex</p> <p>3.13 Number of days' participation by children in different activities in the last week, by age and sex</p> <p>3.14 Time spent by children participating in different activities in the last week, by age and sex</p> <p>3.15 Time spent by children participating in different activities in the last week, by equivalised household income and sex</p> <p>3.16 Sedentary time spent by children in the last week, by age and sex</p> <p>3.17 Sedentary time spent by children in the last week, by equivalised household income and sex</p> | <p>3.18 Summary of children's total sedentary time in the last week, by BMI category, age and sex</p> <p>3.19 Children's total sedentary time, 2008 and 2012, by age and sex</p> <p>3.20 Children's total sedentary time, 2008 and 2012, by BMI category, age and sex</p> |
|---|---|

Notes on the tables

1. The group on which the figures in the table are based is stated at the upper left corner of the table.
2. The data in most tables have been weighted. See Volume 2, Chapter 7 of this report for more detail. Both unweighted and weighted sample sizes are shown at the foot of each table.
3. Apart from tables showing age breakdowns, data have been age-standardised to allow comparisons between groups after adjusting for the effects of any differences in their age distributions. See Volume 2, Chapter 8.4 of this report for more detail.
4. The following conventions have been used in tables:
 - no observations (zero value)
 - 0 non-zero values of less than 0.5% and thus rounded to zero
 - [] used to warn of small sample bases, if the unweighted base is less than 50. If a group's unweighted base is less than 30, data are normally not shown for that group.
5. Because of rounding, row or column percentages may not add exactly to 100%.
6. 'Missing values' occur for several reasons, including refusal or inability to answer a particular question; refusal to co-operate in an entire section of the survey (such as the nurse visit or a self-completion questionnaire); and cases where the question is not applicable to the participant. In general, missing values have been omitted from all tables and analyses.

Table 3.1

Summary of activity levels among children aged 2-4, by sex

Aged 2-4		2012	
Summary activity level ^{a,b}	Sex		Total
	Boys	Girls	
	%	%	%
Meets recommendations	9	10	9
Some activity	6	7	7
Low activity	85	83	84
Bases (unweighted)			
	212	206	418
Bases (weighted)			
	183	196	379

^a Meets recommendations: Physically active for at least 180 minutes (3 hours) daily on all 7 days per week.

Some activity: Physically active for 60-179 minutes daily on all 7 days.

Low activity: Lower levels of physical activity.

^b Excludes walking or cycling to/from school (see Section 3.2.4).

Table 3.2

Summary of activity levels among children aged 5-15, by age and sex

Aged 5-15		2012			
Summary activity level ^{a,b}	Age group				Total
	5-7	8-10	11-12	13-15	
	%	%	%	%	%
Boys					
Meets recommendations	24	26	19	14	21
Some activity	39	40	38	44	41
Low activity	37	34	43	42	39
Girls					
Meets recommendations	23	16	14	8	16
Some activity	37	41	44	38	40
Low activity	40	43	42	54	45
Bases (unweighted)					
<i>Boys</i>	192	175	123	153	643
<i>Girls</i>	182	190	133	146	651
Bases (weighted)					
<i>Boys</i>	183	175	125	188	672
<i>Girls</i>	174	168	133	162	637

^a Meets recommendations: Physically active for at least 60 minutes on all 7 days per week.

Some activity: Physically active for 30-59 minutes on all 7 days.

Low activity: Lower levels of activity.

^b Excludes walking or cycling to/from school (see Section 3.2.4).

Table 3.3

Summary of activity levels among children aged 5-15, by region^a and sex

Aged 5-15

2012

Summary activity level ^{b,c}	Region								
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	%	%	%	%	%	%	%	%	%
Boys									
Meets recommendations	[19]	21	21	25	14	17	24	26	13
Some activity	[45]	46	40	40	43	42	34	43	34
Low activity	[36]	33	39	35	43	41	42	32	52
Girls									
Meets recommendations	[16]	18	14	16	10	11	22	16	15
Some activity	[39]	35	46	38	43	46	34	36	47
Low activity	[45]	47	40	46	47	43	44	48	38
<i>Bases (unweighted)</i>									
Boys	39	93	55	64	78	76	84	103	51
Girls	42	84	64	54	82	71	83	115	56
<i>Bases (weighted)</i>									
Boys	25	92	64	69	85	74	101	106	56
Girls	26	76	69	58	77	68	99	111	54

^a Regions defined as the former Government Office Regions.

^b Meets recommendations: Physically active for at least 60 minutes on all 7 days per week.

Some activity: Physically active for 30-59 minutes on all 7 days.

Low activity: Lower levels of activity.

^c Excludes walking or cycling to/from school (see Section 3.2.4).

[] Results in brackets should be treated with caution because of the small base size.

Table 3.4

Summary of activity levels among children aged 5-15, by equivalised household income and sex

Aged 5-15

2012

Summary activity level ^{a,b}	Equivalised household income quintile				
	Highest %	2nd %	3rd %	4th %	Lowest %
Boys					
Meets recommendations	23	24	16	21	24
Some activity	51	50	46	31	30
Low activity	26	26	38	47	47
Girls					
Meets recommendations	13	17	18	14	19
Some activity	51	47	39	41	32
Low activity	35	36	43	45	49
<i>Bases (unweighted)</i>					
Boys	89	115	107	126	111
Girls	88	106	95	135	130
<i>Bases (weighted)</i>					
Boys	97	118	108	129	116
Girls	87	99	87	132	127

^a Meets recommendations: Physically active for at least 60 minutes on all 7 days per week.

Some activity: Physically active for 30-59 minutes on all 7 days.

Low activity: Lower levels of activity.

^b Excludes walking or cycling to/from school (see Section 3.2.4).

Table 3.5

Summary of activity levels among children aged 5-15, by BMI category, age and sex

Aged 5-15 with valid height and weight measurements

2012

Summary activity level ^{a,b} within age group	BMI category ^c	
	Not overweight or obese %	Overweight or obese %
Boys		
Aged 5-10		
Meets recommendations	23	19
Some activity	38	57
Low activity	38	24
Aged 11-15		
Meets recommendations	15	19
Some activity	37	51
Low activity	48	31
Aged 5-15		
Meets recommendations	20	19
Some activity	38	54
Low activity	42	27
Girls		
Aged 5-10		
Meets recommendations	21	15
Some activity	36	46
Low activity	42	39
Aged 11-15		
Meets recommendations	9	13
Some activity	47	36
Low activity	45	51
Aged 5-15		
Meets recommendations	16	14
Some activity	41	40
Low activity	43	46
<i>Bases (unweighted)</i>		
Boys aged 5-10	219	78
Boys aged 11-15	150	81
Boys aged 5-15	369	159
Girls aged 5-10	215	69
Girls aged 11-15	147	84
Girls aged 5-15	362	153
<i>Bases (weighted)</i>		
Boys aged 5-10	219	73
Boys aged 11-15	175	88
Boys aged 5-15	394	161
Girls aged 5-10	200	62
Girls aged 11-15	156	90
Girls aged 5-15	355	151

^a Meets recommendations: Physically active for at least 60 minutes on all 7 days per week.
Some activity: Physically active for 30-59 minutes on all 7 days.
Low activity: Lower levels of activity.

^b Excludes walking or cycling to/from school (see Section 3.2.4).

^c Overweight was defined as at or above the 85th but below the 95th UK National BMI centile; obese was defined as at or above the 95th UK National BMI centile.

Table 3.6

Summary of activity levels among children aged 5-15, by parents' summary activity levels, age and sex

Aged 5-15

2012

Summary activity level ^{a,b} within age group	Father's activity level ^{c,d}		Mother's activity level ^{c,d}	
	Meets guidelines %	Less active %	Meets guidelines %	Less active %
Boys				
Aged 5-10				
Meets recommendations	18	41	23	29
Some activity	48	26	44	34
Low activity	34	33	33	37
Aged 11-15				
Meets recommendations	18	[14]	15	18
Some activity	51	[26]	46	32
Low activity	31	[59]	39	50
Aged 5-15				
Meets recommendations	18	29	20	24
Some activity	49	26	45	33
Low activity	33	46	35	43
Girls				
Aged 5-10				
Meets recommendations	19	22	22	18
Some activity	43	37	43	33
Low activity	38	41	36	49
Aged 11-15				
Meets recommendations	8	[16]	10	14
Some activity	45	[21]	42	35
Low activity	47	[64]	48	51
Aged 5-15				
Meets recommendations	14	19	16	17
Some activity	44	29	42	34
Low activity	42	52	41	49
<i>Bases (unweighted)</i>				
Boys aged 5-10	168	54	245	101
Boys aged 11-15	113	40	163	91
Boys aged 5-15	281	94	408	192
Girls aged 5-10	143	60	237	117
Girls aged 11-15	109	45	190	64
Girls aged 5-15	252	105	427	181
<i>Bases (weighted)</i>				
Boys aged 5-10	174	53	237	101
Boys aged 11-15	137	47	182	104
Boys aged 5-15	311	100	418	205
Girls aged 5-10	139	61	218	105
Girls aged 11-15	120	52	202	67
Girls aged 5-15	258	113	420	173

^a Meets children's recommendations: Physically active for at least 60 minutes on all 7 days per week.

Some activity: Physically active for 30-59 minutes on all 7 days.

Low activity: Lower levels of activity.

^b Excludes walking or cycling to/from school (see Section 3.2.4).

^c Meets adult guidelines: At least 150 minutes moderately intensive physical activity (MPA) or 75 minutes vigorous activity (VPA) per week (pw) or an equivalent combination of these.

Less active: Less than 150 minutes moderately intensive physical activity (MPA) or 75 minutes vigorous activity (VPA) per week (pw) or an equivalent combination of these.

^d Parental summary physical activity includes moderate or vigorous occupational physical activity derived from the extended questionnaire, introduced in 2008. It includes relevant activities only if reported to have lasted for at least 10 minutes per day, and assumes that all activity above light intensity was of moderate intensity, i.e. there was no sustained vigorous activity. The HSE 2012 questionnaire asked on how many of the days worked the specific types of occupational activities had been undertaken. The classification of parental summary physical activity uses this information, to provide the most accurate estimate of total moderate and vigorous intensity physical activity. See Chapter 2 for more details.

[] Results in brackets should be treated with caution because of the small base size.

Table 3.7

Summary activity levels among children aged 5-15, 2008 and 2012, by age and sex

Aged 5-15

2008, 2012

Summary activity level ^{a,b} within survey year	Age group				Total
	5-7 %	8-10 %	11-12 %	13-15 %	
Boys					
2008^c					
Meets recommendations	30	29	25	28	28
Some activity	37	40	45	40	40
Low activity	33	32	30	32	32
2012					
Meets recommendations	24	26	19	14	21
Some activity	39	40	38	44	41
Low activity	37	34	43	42	39
Girls					
2008^c					
Meets recommendations	25	22	13	14	19
Some activity	36	41	43	35	38
Low activity	39	36	44	51	43
2012					
Meets recommendations	23	16	14	8	16
Some activity	37	41	44	38	40
Low activity	40	43	42	54	45
<i>Bases (unweighted)^b</i>					
Boys, 2008	723	734	514	782	2753
Boys, 2012	192	175	123	153	643
Girls, 2008	715	775	531	781	2802
Girls, 2012	182	190	133	146	651
<i>Bases (weighted)</i>					
Boys, 2008	667	717	473	771	2628
Boys, 2012	183	175	125	188	672
Girls, 2008	637	681	449	728	2495
Girls, 2012	174	168	133	162	637

^a Meets recommendations: 60 minutes or more on all 7 days per week.
Some activity: 30-59 minutes on all 7 days.
Low activity: lower levels of activity.

^b Excludes walking or cycling to/from school (see Section 3.2.4).

^c Figures for 2008 differ from those shown in HSE 2008 report, as the summary activity levels were calculated incorrectly in 2008. See endnote 22.

Table 3.8

Summary of children's participation in active travel to/from school, by age and sex

Children aged 2-15 who attended school^a on at least one day in the last week

2012

Participation in active travel on at least one day in the last week	Age group			Total
	2-4 %	5-10 %	11-15 %	
Boys				
Walking to/from school	53	70	63	64
Cycling to/from school	3	7	5	6
Girls				
Walking to/from school	56	70	70	67
Cycling to/from school	2	1	1	1
<i>Bases (unweighted)^b</i>				
Boys	165	307	224	696
Girls	145	311	229	685
<i>Bases (weighted)</i>				
Boys	140	300	254	694
Girls	137	285	242	664

^a This table includes children attending school, playgroup or nursery in the last week.

^b Bases given are for 'walking to/from school'. Bases for 'cycling to/from school' are of similar magnitude.

Table 3.9

Number of days walking or cycling to/from school in the last week, by age and sex

Children aged 2-15 who attended school^a
on at least one day in the last week

2012

Number of days in the last week	Age group			Total
	2-4	5-10	11-15	
	%	%	%	%
Boys				
Walking to/from school^b				
None	47	30	37	36
1 day	9	5	3	5
2 days	7	4	2	4
3-4 days	12	15	13	14
5-6 days	25	45	45	41
Mean number of days ^c	1.9	2.9	2.8	2.7
Standard error of the mean	0.17	0.14	0.18	0.09
Median ^c	1.0	4.0	4.0	3.0
Cycling to/from school^b				
None	97	93	95	94
1 day	-	1	0	1
2 days	1	3	0	1
3-4 days	1	2	2	2
5-6 days	1	1	3	2
Mean number of days ^c	0.1	0.2	0.2	0.2
Standard error of the mean	0.05	0.06	0.06	0.04
Median ^c	0.0	0.0	0.0	0.0
Girls				
Walking to/from school^b				
None	44	30	30	33
1 day	8	2	4	4
2 days	7	6	5	6
3-4 days	20	12	13	14
5-6 days	21	50	49	44
Mean number of days ^c	1.9	3.1	3.0	2.8
Standard error of the mean	0.18	0.14	0.18	0.10
Median ^c	1.0	5.0	4.0	4.0
Cycling to/from school^b				
None	98	99	99	99
1 day	1	0	1	1
2 days	1	0	1	0
3-4 days	-	0	-	0
5-6 days	-	0	-	0
Mean number of days ^c	0.0	0.0	0.0	0.0
Standard error of the mean	0.02	0.02	0.01	0.01
Median ^c	0.0	0.0	0.0	0.0
Bases (unweighted)^d				
Boys	165	307	224	696
Girls	145	311	229	685
Bases (weighted)				
Boys	140	300	254	694
Girls	137	285	242	664

^a This table includes children attending school, playgroup or nursery in the last week.

^b Totals on at least one day in the last week may differ from those in Table 3.8; some who reported participation in walking or cycling to/from school did not provide frequency/duration information, and are included in 'None' in this table.

^c Mean and median are based on all participants who attended school, playgroup or nursery in the last week.

^d Bases given are for 'walking to/from school'. Bases for 'cycling to/from school' are of similar magnitude.

Table 3.10

Time spent walking or cycling to/from school in the last week, by age and sex

Children aged 2-15 who attended school^a
on at least one day in the last week

2012

Number of hours in the last week	Age group			Total
	2-4	5-10	11-15	
	%	%	%	%
Boys				
Walking to/from school^b				
None	47	31	38	37
Any time	53	69	62	63
Less than one hour	23	25	18	22
1 hour to less than 2	21	30	15	23
2 hours to less than 3	7	10	10	10
3 hours or more	2	3	19	9
Mean number of hours ^c	0.7	1.0	1.4	1.1
Standard error of the mean	0.07	0.06	0.13	0.06
Median ^c	0.3	0.8	0.8	0.7
Cycling to/from school^b				
None	97	93	95	95
Any time	3	7	5	5
Less than one hour	2	5	0	2
1 hour to less than 2	-	1	2	1
2 hours to less than 3	-	0	2	1
3 hours or more	1	0	1	1
Mean number of hours ^c	0.0	0.1	0.1	0.1
Standard error of the mean	0.03	0.02	0.03	0.02
Median ^c	0.0	0.0	0.0	0.0
Girls				
Walking to/from school^b				
None	46	30	30	33
Any time	54	70	70	67
Less than one hour	21	27	24	25
1 hour to less than 2	20	28	16	22
2 hours to less than 3	8	9	11	10
3 hours or more	5	6	18	11
Mean number of hours ^c	0.8	1.0	1.4	1.1
Standard error of the mean	0.09	0.06	0.12	0.05
Median ^c	0.3	0.8	0.8	0.8
Cycling to/from school^b				
None	98	99	99	99
Any time	2	1	1	1
Less than one hour	1	1	1	1
1 hour to less than 2	1	-	-	0
2 hours to less than 3	-	-	-	-
3 hours or more	-	-	-	-
Mean number of hours ^c	0.0	0.0	0.0	0.0
Standard error of the mean	0.01	0.00	0.00	0.00
Median ^c	0.0	0.0	0.0	0.0
Bases (unweighted)^d				
Boys	163	300	218	681
Girls	141	309	224	674
Bases (weighted)				
Boys	138	294	245	676
Girls	133	282	236	651

^a This table includes children attending school, playgroup or nursery in the last week.

^b Totals on at least one day in the last week may differ from those in Table 3.8; some who reported participation in walking or cycling to/from school did not provide frequency/duration information, and are included in 'None' in this table.

^c Mean and median are based on all participants who attended school, playgroup or nursery in the last week.

^d Bases given are for 'walking to/from school'. Bases for 'cycling to/from school' are of similar magnitude.

Table 3.11

Children's participation in active travel to/from school, 2008 and 2012, by age and sex

Children aged 2-15 who attended school^a on at least one day in the last week 2008, 2012

Participation in active travel on at least one day in the last week	Age group			Total
	2-4	5-10	11-15	
	%	%	%	%
Boys				
2008				
Walking to/from school	52	66	65	63
Cycling to/from school	3	4	8	5
2012				
Walking to/from school	53	70	63	64
Cycling to/from school	3	7	5	6
Girls				
2008				
Walking to/from school	56	65	70	65
Cycling to/from school	1	2	2	2
2012				
Walking to/from school	56	70	70	67
Cycling to/from school	2	1	1	1
<i>Bases (unweighted)^b</i>				
Boys, 2008	536	1243	1068	2847
Boys, 2012	165	307	224	696
Girls, 2008	526	1245	1078	2849
Girls, 2012	145	311	229	685
<i>Bases (weighted)</i>				
Boys, 2008	503	1178	1026	2707
Boys, 2012	140	300	254	694
Girls, 2008	474	1104	971	2549
Girls, 2012	137	285	242	664

^a This table includes children attending school, playgroup or nursery in the last week.

^b Bases given are for 'walking to/from school'. Bases for 'cycling to/from school' are of similar magnitude.

Table 3.12

Summary of children's participation in different activities in the last week, by age and sex

Participation in each activity type on at least one day in the last week	Age group					Total
	2-4	5-7	8-10	11-12	13-15	
	%	%	%	%	%	%
<i>Aged 2-15</i>						
Boys						
Walking ^a	55	56	44	54	51	52
Informal sports/ exercise/ active play ^b	89	89	88	79	78	85
Formal sports/ activities ^c	32	51	60	52	46	48
<i>All physical activities</i>	<i>95</i>	<i>94</i>	<i>92</i>	<i>92</i>	<i>91</i>	<i>93</i>
Girls						
Walking ^a	57	50	47	59	57	54
Informal sports/ exercise/ active play ^b	88	92	92	84	68	85
Formal sports/ activities ^c	24	47	44	46	32	38
<i>All physical activities</i>	<i>91</i>	<i>95</i>	<i>95</i>	<i>92</i>	<i>85</i>	<i>92</i>
<i>Bases (unweighted)^d</i>						
Boys	214	192	177	124	153	860
Girls	210	184	191	134	146	865
<i>Bases (weighted)</i>						
Boys	184	183	178	128	188	861
Girls	200	176	169	134	162	841

^a Walking does not include walking to or from school, which is reported separately in Tables 3.8-3.10.

^b Informal sports/ exercise/ active play include: cycling, hopscotch, bouncing on trampoline, playing around, e.g. kicking a ball around, catch, hide and seek, skating, skateboarding, using a scooter, dancing, skipping rope, vacuuming, cleaning car, gardening, etc. Cycling does not include cycling to or from school, which is reported separately in Tables 3.8-3.10.

^c Formal sports/activities include: football, rugby, hockey, lacrosse, netball, basketball, handball, cricket, rounders, tennis, badminton, squash, running, jogging, athletics, swimming (either laps or splashing about), gymnastics, workout with gym machines, weight training, aerobics.

^d Bases given are for walking. All other bases vary but are of similar magnitude.

Table 3.13

Number of days' participation by children in different activities in the last week, by age and sex

Aged 2-15						2012
Number of days in the last week	Age group					Total %
	2-4 %	5-7 %	8-10 %	11-12 %	13-15 %	
Boys						
Walking^{a,b}						
None	45	44	56	46	49	48
1 day	9	18	11	12	11	12
2 days	6	8	11	15	9	10
3-4 days	14	8	6	5	8	9
5-7 days	26	22	16	21	23	21
Mean number of days ^c	2.3	2.0	1.5	1.9	2.0	1.9
Standard error of the mean	0.19	0.20	0.20	0.24	0.19	0.10
Median ^c	1.0	1.0	0.0	1.0	1.0	1.0
Informal sports/exercise/active play^{b,d}						
None	11	11	12	21	22	15
1 day	8	7	6	11	15	9
2 days	5	12	13	12	11	10
3-4 days	13	19	12	20	22	17
5-7 days	64	52	57	36	30	49
Mean number of days ^c	4.8	4.4	4.3	3.4	3.0	4.0
Standard error of the mean	0.18	0.20	0.20	0.27	0.22	0.10
Median ^c	6.0	5.0	5.0	3.0	3.0	4.0
Formal sports/activities^e						
None	66	44	38	42	46	48
1 day	22	26	17	17	14	19
2 days	9	16	14	18	12	13
3-4 days	3	11	23	14	17	13
5-7 days	1	4	8	9	11	6
Mean number of days ^c	0.5	1.1	1.7	1.5	1.6	1.3
Standard error of the mean	0.07	0.11	0.16	0.19	0.16	0.07
Median ^c	0.0	1.0	1.0	1.0	1.0	1.0
All physical activities^f						
None	5	5	8	7	7	7
1 day	7	4	1	6	9	5
2 days	4	9	7	12	9	8
3-4 days	9	14	13	21	20	15
5-7 days	75	67	70	53	54	64
Mean number of days ^c	5.3	5.1	5.0	4.6	4.4	4.9
Standard error of the mean	0.16	0.18	0.19	0.25	0.20	0.09
Median ^c	6.0	6.0	6.0	5.0	5.0	6.0
<i>Bases (unweighted)^g</i>						
Boys	214	192	177	124	153	860
<i>Bases (weighted)</i>						
Boys	184	183	178	128	188	861

^a Walking does not include walking to or from school, which is reported separately in Tables 3.8-3.10.

^b Totals on at least one day in the last week may differ from those in Table 3.12; some who reported participation in an activity did not provide frequency/duration information, and are included in 'None' in this table.

^c Mean and median are based on all participants.

^d Informal sports/ exercise/ active play include: cycling, hopscotch, bouncing on trampoline, playing around, e.g. kicking a ball around, catch, hide and seek, skating, skateboarding, using a scooter, dancing, skipping rope, vacuuming, cleaning car, gardening, etc. Cycling does not include cycling to or from school, which is reported separately in Tables 3.8-3.10.

^e Formal sports/activities include: football, rugby, hockey, lacrosse, netball, basketball, handball, cricket, rounders, tennis, badminton, squash, running, jogging, athletics, swimming (either laps or splashing about), gymnastics, workout with gym machines, weight training, aerobics.

^f Does not include walking or cycling to/from school.

^g Bases given are for walking. All other bases vary but are of similar magnitude.

Continued...

Table 3.13 continued

Aged 2-15						2012
Number of days in the last week	Age group					Total
	2-4	5-7	8-10	11-12	13-15	
	%	%	%	%	%	%
Girls						
Walking^{a,b}						
None	43	50	53	41	43	46
1 day	9	12	13	8	9	10
2 days	11	10	13	19	13	13
3-4 days	11	9	5	11	10	9
5-7 days	26	19	17	20	26	22
Mean number of days ^c	2.3	1.8	1.6	2.0	2.3	2.0
Standard error of the mean	0.20	0.19	0.18	0.21	0.22	0.10
Median ^c	1.0	0.0	0.0	2.0	1.0	1.0
Informal sports/ exercise/active play^{b,d}						
None	12	8	8	16	32	15
1 day	6	7	7	15	17	10
2 days	13	11	17	12	17	14
3-4 days	9	18	19	24	14	16
5-7 days	60	56	49	33	19	45
Mean number of days ^c	4.6	4.5	4.1	3.2	2.1	3.8
Standard error of the mean	0.19	0.19	0.18	0.21	0.20	0.10
Median ^c	5.0	5.0	4.0	3.0	2.0	4.0
Formal sports/ activities^e						
None	74	47	49	50	56	56
1 day	17	31	23	17	18	21
2 days	5	12	15	14	9	11
3-4 days	2	7	8	11	11	7
5-7 days	2	3	5	8	6	5
Mean number of days ^c	0.4	1.0	1.1	1.2	1.1	0.9
Standard error of the mean	0.07	0.10	0.12	0.16	0.13	0.05
Median ^c	0.0	1.0	1.0	0.0	0.0	0.0
All physical activities^f						
None	8	4	4	6	12	7
1 day	3	3	3	8	9	5
2 days	8	8	9	9	10	9
3-4 days	12	17	22	17	22	18
5-7 days	69	67	62	60	47	61
Mean number of days ^c	5.1	5.1	4.9	4.6	4.0	4.8
Standard error of the mean	0.18	0.17	0.16	0.20	0.24	0.10
Median ^c	6.0	6.0	5.0	5.0	4.0	6.0
Bases (unweighted)^g						
Girls	210	184	191	134	146	865
Bases (weighted)						
Girls	200	176	169	134	162	841

^a Walking does not include walking to or from school, which is reported separately in Tables 3.8-3.10.

^b Totals on at least one day in the last week may differ from those in Table 3.12; some who reported participation in an activity did not provide frequency/duration information, and are included in 'None' in this table.

^c Mean and median are based on all participants.

^d Informal sports/ exercise/ active play include: cycling, hopscotch, bouncing on trampoline, playing around, e.g. kicking a ball around, catch, hide and seek, skating, skateboarding, using a scooter, dancing, skipping rope, vacuuming, cleaning car, gardening, etc. Cycling does not include cycling to or from school, which is reported separately in Tables 3.8-3.10.

^e Formal sports/activities include: football, rugby, hockey, lacrosse, netball, basketball, handball, cricket, rounders, tennis, badminton, squash, running, jogging, athletics, swimming (either laps or splashing about), gymnastics, workout with gym machines, weight training, aerobics.

^f Does not include walking or cycling to/from school.

^g Bases given are for walking. All other bases vary but are of similar magnitude.

Table 3.14

Time spent by children participating in different activities in the last week, by age and sex

Aged 2-15						2012
Number of hours in the last week	Age group					Total %
	2-4 %	5-7 %	8-10 %	11-12 %	13-15 %	
Boys						
Walking^a						
No time	45	44	56	46	49	48
Any time	55	56	44	54	51	52
Less than 1 hour	14	16	7	15	9	12
1 to less than 3 hours	19	19	23	16	19	19
3 to less than 5 hours	13	12	5	7	11	10
5 to less than 7 hours	4	4	4	5	4	4
7 hours or more	6	5	5	11	9	7
Mean number of hours ^b	1.7	1.6	1.2	2.3	2.1	1.7
Standard error of the mean	0.20	0.23	0.19	0.43	0.35	0.13
Median ^b	0.5	0.5	0.0	0.3	0.3	0.3
Informal sports/ exercise/active play^c						
No time	11	11	12	21	22	15
Any time	89	89	88	79	78	85
Less than 1 hour	6	4	6	10	13	8
1 to less than 3 hours	17	22	21	18	17	19
3 to less than 5 hours	11	15	10	12	13	12
5 to less than 7 hours	11	13	10	10	8	11
7 hours or more	44	36	41	28	27	36
Mean number of hours ^b	9.9	6.6	6.3	5.7	4.8	6.7
Standard error of the mean	0.88	0.59	0.47	0.70	0.57	0.31
Median ^b	5.7	4.5	5.0	3.5	2.5	4.1
Formal sports/activities^d						
No time	68	49	40	48	54	52
Any time	32	51	60	52	46	48
Less than 1 hour	11	9	6	4	1	6
1 to less than 3 hours	18	29	29	24	15	23
3 to less than 5 hours	2	9	10	12	16	10
5 to less than 7 hours	1	1	8	4	7	4
7 hours or more	0	1	7	9	6	4
Mean number of hours ^b	0.5	1.0	2.0	1.9	2.1	1.5
Standard error of the mean	0.08	0.11	0.28	0.29	0.27	0.10
Median ^b	0.0	0.5	1.0	0.7	0.0	0.0
All physical activities^e						
No time	5	6	8	8	9	7
Any time	95	94	92	92	91	93
Less than 1 hour	4	1	1	4	8	4
1 to less than 3 hours	13	15	12	15	12	13
3 to less than 5 hours	11	14	10	16	13	13
5 to less than 7 hours	12	15	11	11	8	12
7 hours or more	55	49	57	47	50	52
Mean number of hours ^b	12.1	9.3	9.4	9.9	9.0	9.9
Standard error of the mean	0.91	0.70	0.61	0.93	0.81	0.36
Median ^b	7.8	6.8	8.3	6.3	7.0	7.4
Bases (unweighted)^f						
Boys	214	192	177	124	153	860
Bases (weighted)						
Boys	184	183	178	128	188	861

^a Walking does not include walking to or from school, which is reported separately in Tables 3.8-3.10.

^b Mean and median are based on all participants.

^c Informal sports/ exercise/ active play include: cycling, hopscotch, bouncing on trampoline, playing around, e.g. kicking a ball around, catch, hide and seek, skating, skateboarding, using a scooter, dancing, skipping rope, vacuuming, cleaning car, gardening, etc. Cycling does not include cycling to or from school, which is reported separately in Tables 3.8-3.10.

^d Formal sports/activities include: football, rugby, hockey, lacrosse, netball, basketball, handball, cricket, rounders, tennis, badminton, squash, running, jogging, athletics, swimming (either laps or splashing about), gymnastics, workout with gym machines, weight training, aerobics.

^e Does not include walking or cycling to/from school.

^f Bases given are for walking. All other bases vary but are of similar magnitude.

Continued...

Table 3.14

Table 3.14 continued

Aged 2-15 2012

Number of hours in the last week	Age group					Total
	2-4	5-7	8-10	11-12	13-15	
	%	%	%	%	%	%
Girls						
Walking^a						
No time	43	50	53	41	43	46
Any time	57	50	47	59	57	54
Less than 1 hour	13	12	9	8	12	11
1 to less than 3 hours	21	17	20	26	17	20
3 to less than 5 hours	13	9	9	8	10	10
5 to less than 7 hours	2	9	6	8	7	6
7 hours or more	8	3	2	9	11	6
Mean number of hours ^b	1.9	1.4	1.3	2.3	2.4	1.8
Standard error of the mean	0.28	0.18	0.16	0.31	0.32	0.12
Median ^b	0.5	0.0	0.0	1.0	0.5	0.3
Informal sports/exercise/active play^c						
No time	12	8	8	16	32	15
Any time	88	92	92	84	68	85
Less than 1 hour	10	7	8	9	19	10
1 to less than 3 hours	16	21	24	30	18	21
3 to less than 5 hours	15	17	23	12	15	17
5 to less than 7 hours	7	11	10	10	6	9
7 hours or more	40	36	27	24	9	28
Mean number of hours ^b	8.5	6.3	5.9	4.6	2.3	5.7
Standard error of the mean	0.78	0.45	0.53	0.50	0.29	0.28
Median ^b	4.5	4.5	3.8	2.5	0.8	3.2
Formal sports/activities^d						
No time	76	53	56	54	68	62
Any time	24	47	44	46	32	38
Less than 1 hour	8	21	9	6	5	10
1 to less than 3 hours	14	19	21	21	18	18
3 to less than 5 hours	2	6	7	10	5	6
5 to less than 7 hours	1	-	3	5	3	2
7 hours or more	0	1	5	3	1	2
Mean number of hours ^b	0.4	0.6	1.2	1.4	0.8	0.8
Standard error of the mean	0.11	0.09	0.18	0.21	0.14	0.07
Median ^b	0.0	0.0	0.0	0.0	0.0	0.0
All physical activities^e						
No time	9	5	5	8	15	8
Any time	91	95	95	92	85	92
Less than 1 hour	4	6	2	4	9	5
1 to less than 3 hours	12	13	16	13	19	15
3 to less than 5 hours	13	11	20	10	16	14
5 to less than 7 hours	10	12	12	13	10	11
7 hours or more	51	53	46	51	31	46
Mean number of hours ^b	10.8	8.3	8.3	8.2	5.5	8.3
Standard error of the mean	0.91	0.50	0.61	0.62	0.50	0.34
Median ^b	7.0	7.3	6.0	7.0	3.7	6.3
Bases (unweighted)^f						
Girls	210	184	191	134	146	865
Bases (weighted)						
Girls	200	176	169	134	162	841

^a Walking does not include walking to or from school, which is reported separately in Tables 3.8-3.10.

^b Mean and median are based on all participants.

^c Informal sports/ exercise/ active play include: cycling, hopscotch, bouncing on trampoline, playing around, e.g. kicking a ball around, catch, hide and seek, skating, skateboarding, using a scooter, dancing, skipping rope, vacuuming, cleaning car, gardening, etc. Cycling does not include cycling to or from school, which is reported separately in Tables 3.8-3.10.

^d Formal sports/activities include: football, rugby, hockey, lacrosse, netball, basketball, handball, cricket, rounders, tennis, badminton, squash, running, jogging, athletics, swimming (either laps or splashing about), gymnastics, workout with gym machines, weight training, aerobics.

^e Does not include walking or cycling to/from school.

^f Bases given are for walking. All other bases vary but are of similar magnitude.

Table 3.15

Time spent by children participating in different activities in the last week, by equivalised household income and sex

Aged 2-15

2012

Number of hours in the last week	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
Boys					
Walking^a					
Mean number of hours ^b	1.9	1.9	1.7	2.2	1.5
Standard error of the mean	0.29	0.30	0.31	0.36	0.27
Median ^b	1.0	0.5	0.5	0.5	0.0
Informal sports/ exercise/ active play^c					
Mean number of hours ^b	7.0	7.7	6.3	7.0	6.4
Standard error of the mean	0.69	0.81	0.74	0.76	0.71
Median ^b	5.1	5.1	3.5	4.0	3.9
Formal sports/activities^d					
Mean number of hours ^b	2.1	1.6	1.5	1.4	1.2
Standard error of the mean	0.29	0.21	0.26	0.32	0.20
Median ^b	1.0	1.0	0.5	0.0	0.0
Any physical activity^e					
Mean number of hours ^b	11.0	11.2	9.6	10.5	9.3
Standard error of the mean	0.83	0.98	0.87	0.91	0.87
Median ^b	9.0	9.1	6.7	6.5	6.9
Girls					
Walking^a					
Mean number of hours ^b	1.9	2.4	1.8	2.1	1.3
Standard error of the mean	0.33	0.32	0.32	0.35	0.19
Median ^b	0.3	1.3	0.3	0.5	0.0
Informal sports/ exercise/ active play^c					
Mean number of hours ^b	5.4	6.1	5.6	5.5	6.5
Standard error of the mean	0.63	0.59	0.66	0.53	0.75
Median ^b	3.8	3.8	3.0	3.5	3.5
Formal sports/activities^d					
Mean number of hours ^b	1.6	1.1	0.9	0.6	0.6
Standard error of the mean	0.24	0.17	0.20	0.12	0.17
Median ^b	1.0	0.0	0.0	0.0	0.0
Any physical activity^e					
Mean number of hours ^b	8.9	9.5	8.2	8.3	8.5
Standard error of the mean	0.74	0.72	0.79	0.66	0.81
Median ^b	8.3	7.2	7.0	6.3	5.3
Bases (unweighted)^f					
Boys	121	158	137	179	148
Girls	114	141	126	162	186
Bases (weighted)					
Boys	127	154	133	176	146
Girls	114	132	116	157	178

^a Does not include walking to or from school.

^b Mean and median are based on all participants.

^c Informal sports/ exercise/ active play include: cycling (apart from to and from school), hopscotch, bouncing on trampoline, playing around, e.g. kicking a ball around, catch, hide and seek, skating, skateboarding, using a scooter, dancing, skipping rope, vacuuming, cleaning car, gardening, etc. Cycling does not include cycling to or from school, which is reported separately in Tables 3.8-3.10.

^d Formal sports/activities include: football, rugby, hockey, lacrosse, netball, basketball, handball, cricket, rounders, tennis, badminton, squash, running, jogging, athletics, swimming (either laps or splashing about), gymnastics, workout with gym machines, weight training, aerobics.

^e Does not include walking/ cycling to or from school.

^f Bases given are for walking. All other bases vary but are of similar magnitude.

Table 3.16

Sedentary time spent by children in the last week, by age and sex

Aged 2-15						2012
Mean daily sedentary time in the last week ^a	Age group					Total
	2-4	5-7	8-10	11-12	13-15	
	%	%	%	%	%	%
Boys						
Watching TV^b						
Weekday						
Less than 2 hours	58	57	54	51	52	55
2 to less than 4 hours	37	40	42	41	37	39
4 hours or more	5	3	4	8	10	6
Mean number of hours	1.5	1.6	1.6	1.9	1.8	1.7
Standard error of the mean	0.08	0.07	0.08	0.12	0.12	0.05
Median	1.0	1.5	1.5	1.5	1.5	1.5
Weekend day						
Less than 2 hours	45	35	26	38	36	36
2 to less than 4 hours	46	52	56	40	43	48
4 hours or more	8	12	18	22	21	16
Mean number of hours	1.8	2.2	2.5	2.3	2.4	2.2
Standard error of the mean	0.10	0.11	0.11	0.16	0.14	0.06
Median	2.0	2.0	2.0	2.0	2.0	2.0
Other sedentary time^c						
Weekday						
Less than 2 hours	71	74	69	45	38	60
2 to less than 4 hours	23	24	26	48	37	31
4 hours or more	5	2	5	7	25	9
Mean number of hours	1.3	1.2	1.4	1.9	2.4	1.6
Standard error of the mean	0.08	0.06	0.09	0.11	0.15	0.05
Median	1.0	1.0	1.0	2.0	2.0	1.0
Weekend day						
Less than 2 hours	62	54	49	34	31	47
2 to less than 4 hours	34	39	44	50	38	40
4 hours or more	4	7	7	16	31	13
Mean number of hours	1.4	1.6	1.8	2.2	2.9	2.0
Standard error of the mean	0.07	0.09	0.10	0.12	0.20	0.06
Median	1.0	1.5	2.0	2.0	2.0	2.0
Total sedentary time						
Weekday						
Less than 2 hours	28	26	15	9	9	18
2 to less than 4 hours	44	52	60	46	38	48
4 to less than 6 hours	21	19	18	34	29	23
6 hours or more	7	4	7	11	24	11
Mean number of hours	2.8	2.8	3.0	3.7	4.2	3.3
Standard error of the mean	0.13	0.11	0.13	0.18	0.18	0.07
Median	2.5	2.5	3.0	3.5	4.0	3.0
Weekend day						
Less than 2 hours	22	13	4	9	8	11
2 to less than 4 hours	36	40	38	23	24	33
4 to less than 6 hours	32	31	36	40	26	33
6 hours or more	10	15	22	27	43	23
Mean number of hours	3.2	3.8	4.3	4.6	5.3	4.2
Standard error of the mean	0.13	0.15	0.17	0.21	0.23	0.10
Median	3.0	3.5	4.0	4.5	5.0	4.0
Bases (unweighted)^d						
Boys	216	192	177	124	153	862
Bases (weighted)						
Boys	187	183	178	128	188	863

^a Sedentary time excluding time at school.

^b Watching TV includes DVDs or videos.

^c Sitting down doing any other activity, e.g. reading, doing homework, drawing, using a computer, or playing video games.

^d Bases given are for 'Watching TV' on weekdays. All other bases vary but are of similar magnitude.

Table 3.16 continued

Aged 2-15						2012
Mean daily sedentary time in the last week ^a	Age group					Total
	2-4	5-7	8-10	11-12	13-15	
	%	%	%	%	%	%
Girls						
Watching TV^b						
Weekday						
Less than 2 hours	64	64	52	44	43	55
2 to less than 4 hours	29	33	44	48	41	38
4 hours or more	7	3	3	8	15	7
Mean number of hours	1.5	1.4	1.7	1.9	2.2	1.7
Standard error of the mean	0.09	0.07	0.09	0.10	0.12	0.04
Median	1.0	1.0	1.5	2.0	2.0	1.5
Weekend day						
Less than 2 hours	51	37	28	37	30	37
2 to less than 4 hours	41	48	52	46	43	46
4 hours or more	9	16	20	16	28	17
Mean number of hours	1.8	2.2	2.4	2.2	2.7	2.2
Standard error of the mean	0.09	0.11	0.12	0.12	0.15	0.06
Median	1.5	2.0	2.0	2.0	2.0	2.0
Other sedentary time^c						
Weekday						
Less than 2 hours	68	75	66	57	39	62
2 to less than 4 hours	29	23	34	40	48	34
4 hours or more	3	2	0	2	12	4
Mean number of hours	1.3	1.2	1.4	1.6	2.1	1.5
Standard error of the mean	0.07	0.05	0.06	0.09	0.14	0.04
Median	1.0	1.0	1.0	1.5	2.0	1.0
Weekend day						
Less than 2 hours	66	53	51	57	33	52
2 to less than 4 hours	31	42	45	37	46	40
4 hours or more	4	6	4	6	21	8
Mean number of hours	1.4	1.7	1.6	1.6	2.4	1.7
Standard error of the mean	0.08	0.08	0.08	0.11	0.14	0.05
Median	1.0	1.5	1.5	1.5	2.0	1.5
Total sedentary time						
Weekday						
Less than 2 hours	26	28	14	11	3	17
2 to less than 4 hours	48	52	57	47	39	49
4 to less than 6 hours	18	16	25	36	41	26
6 hours or more	7	4	3	6	16	7
Mean number of hours	2.8	2.7	3.1	3.5	4.3	3.2
Standard error of the mean	0.13	0.10	0.12	0.14	0.19	0.07
Median	2.5	2.5	3.0	3.0	4.0	3.0
Weekend day						
Less than 2 hours	19	11	9	13	7	12
2 to less than 4 hours	48	38	35	37	23	37
4 to less than 6 hours	24	34	35	32	33	31
6 hours or more	9	16	21	17	37	20
Mean number of hours	3.2	3.9	4.1	3.8	5.1	4.0
Standard error of the mean	0.14	0.15	0.15	0.19	0.22	0.09
Median	3.0	4.0	4.0	3.5	5.0	4.0
Bases (unweighted)^d						
Girls	212	184	191	135	146	868
Bases (weighted)						
Girls	201	176	169	136	162	844

^a Sedentary time excluding time at school.

^b Watching TV includes DVDs or videos.

^c Sitting down doing any other activity, e.g. reading, doing homework, drawing, using a computer, or playing video games.

^d Bases given are for 'Watching TV' on weekdays. All other bases vary but are of similar magnitude.

Table 3.17

Sedentary time spent by children in the last week, by equivalised household income and sex

Aged 2-15

2012

Mean daily number of sedentary hours in the last week ^a	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
Boys					
Watching TV^b					
Weekday					
Mean number of hours	1.2	1.7	1.7	1.8	1.9
Standard error of the mean	0.09	0.09	0.10	0.12	0.10
Median	1.0	1.5	1.5	2.0	2.0
Weekend day					
Mean number of hours	1.8	2.1	2.4	2.3	2.4
Standard error of the mean	0.12	0.12	0.14	0.16	0.15
Median	2.0	2.0	2.0	2.0	2.0
Other sedentary time^c					
Weekday					
Mean number of hours	1.7	1.5	1.6	1.5	1.7
Standard error of the mean	0.13	0.11	0.10	0.12	0.14
Median	1.5	1.0	1.0	1.0	1.0
Weekend day					
Mean number of hours	1.9	1.9	2.2	1.8	2.1
Standard error of the mean	0.15	0.11	0.16	0.14	0.20
Median	2.0	2.0	2.0	1.5	2.0
Total sedentary time					
Weekday					
Mean number of hours	3.0	3.2	3.3	3.3	3.6
Standard error of the mean	0.17	0.16	0.14	0.17	0.17
Median	3.0	3.0	3.0	3.0	3.5
Weekend day					
Mean number of hours	3.7	4.0	4.6	4.1	4.6
Standard error of the mean	0.22	0.17	0.21	0.22	0.23
Median	3.0	4.0	4.0	4.0	4.0
Bases (unweighted)^d					
Boys	121	158	137	180	149
Bases (weighted)					
Boys	127	154	133	177	147

^a Sedentary time excluding time at school.

^b Watching TV includes DVDs or videos.

^c Sitting down doing any other activity, e.g. reading, doing homework, drawing, using a computer, or playing video games.

^d Bases given are for 'Watching TV' on weekdays. All other bases vary but are of similar magnitude.

Continued...

Table 3.17 continued

Aged 2-15

2012

Mean daily number of sedentary hours in the last week ^a	Equivalent household income quintile				
	Highest	2nd	3rd	4th	Lowest
Girls					
Watching TV^b					
Weekday					
Mean number of hours	1.4	1.6	1.4	1.8	2.0
Standard error of the mean	0.12	0.09	0.11	0.10	0.11
Median	1.0	1.5	1.0	1.5	2.0
Weekend day					
Mean number of hours	2.0	2.1	2.2	2.4	2.4
Standard error of the mean	0.13	0.13	0.16	0.15	0.13
Median	2.0	2.0	2.0	2.0	2.0
Other sedentary time^c					
Weekday					
Mean number of hours	1.5	1.3	1.4	1.5	1.5
Standard error of the mean	0.11	0.09	0.09	0.09	0.08
Median	1.0	1.0	1.0	1.0	1.0
Weekend day					
Mean number of hours	1.7	1.7	1.6	1.8	1.7
Standard error of the mean	0.11	0.15	0.10	0.12	0.10
Median	1.5	1.5	1.5	1.5	1.5
Total sedentary time					
Weekday					
Mean number of hours	2.9	3.0	2.9	3.3	3.5
Standard error of the mean	0.18	0.15	0.16	0.16	0.14
Median	2.5	2.7	2.5	3.0	3.0
Weekend day					
Mean number of hours	3.7	3.9	3.8	4.2	4.1
Standard error of the mean	0.18	0.22	0.21	0.22	0.19
Median	3.5	3.5	3.5	4.0	4.0
Bases (unweighted)^d					
Girls	114	141	126	163	186
Bases (weighted)					
Girls	114	132	116	157	178

^a Sedentary time excluding time at school.

^b Watching TV includes DVDs or videos.

^c Sitting down doing any other activity, e.g. reading, doing homework, drawing, using a computer, or playing video games.

^d Bases given are for 'Watching TV' on weekdays. All other bases vary but are of similar magnitude.

Table 3.18

Summary of children's total sedentary time in the last week, by BMI category, age and sex

Aged 2-15 with valid height and weight measurements 2012

Mean daily number of sedentary hours in the last week, within age group ^a	BMI category ^b		Total
	Not overweight or obese	Overweight or obese	
Boys			
Aged 2-10			
Weekdays			
Mean number of hours per day	2.8	3.0	2.9
Standard error of the mean	0.09	0.13	0.07
Median	2.8	3.0	3.0
Weekend days			
Mean number of hours per day	3.7	4.1	3.8
Standard error of the mean	0.11	0.20	0.10
Median	3.5	4.0	3.5
Aged 11-15			
Weekdays			
Mean number of hours per day	4.2	4.0	4.1
Standard error of the mean	0.17	0.19	0.12
Median	4.0	3.5	4.0
Weekend days			
Mean number of hours per day	5.2	4.8	5.1
Standard error of the mean	0.22	0.25	0.18
Median	5.0	4.5	5.0
Girls			
Aged 2-10			
Weekdays			
Mean number of hours per day	2.9	2.7	2.8
Standard error of the mean	0.10	0.14	0.08
Median	2.5	2.5	2.5
Weekend days			
Mean number of hours per day	3.7	3.7	3.7
Standard error of the mean	0.10	0.21	0.10
Median	3.3	3.5	3.5
Aged 11-15			
Weekdays			
Mean number of hours per day	3.9	4.1	4.0
Standard error of the mean	0.14	0.21	0.12
Median	3.8	4.0	4.0
Weekend days			
Mean number of hours per day	4.6	4.4	4.5
Standard error of the mean	0.17	0.25	0.14
Median	4.0	4.0	4.0
Bases (unweighted)^c			
Boys aged 2-10	324	108	432
Boys aged 11-15	150	82	232
Girls aged 2-10	325	99	424
Girls aged 11-15	147	85	232
Bases (weighted)			
Boys aged 2-10	315	99	415
Boys aged 11-15	175	90	265
Girls aged 2-10	304	90	394
Girls aged 11-15	156	91	246

^a Sedentary time excluding time at school.

^b Overweight was defined as at or above the 85th but below the 95th UK National BMI centile; obese was defined as at or above the 95th UK National BMI centile.

^c Bases given are for total sedentary time (television viewing time or other sedentary time).

Table 3.19

Children's total sedentary time, 2008 and 2012, by age and sex

Aged 2-15

2008, 2012

Mean daily number of sedentary hours in the last week ^a	Boys		Girls	
	2-10	11-15	2-10	11-15
2008				
Weekdays				
Mean number of hours per day	3.0	4.1	3.0	4.2
Standard error of the mean	0.04	0.07	0.04	0.06
Median	2.8	4.0	3.0	4.0
Weekend days				
Mean number of hours per day	3.7	4.8	3.8	4.8
Standard error of the mean	0.05	0.08	0.05	0.08
Median	3.5	4.5	3.5	4.5
2012				
Weekdays				
Mean number of hours per day	2.9	4.0	2.8	3.9
Standard error of the mean	0.07	0.13	0.07	0.13
Median	2.5	3.8	2.5	4.0
Weekend days				
Mean number of hours per day	3.8	5.0	3.7	4.5
Standard error of the mean	0.10	0.17	0.09	0.16
Median	3.5	4.5	3.5	4.0
Bases (unweighted)^b				
2008	2203	1297	2240	1315
2012	584	277	587	281
Bases (weighted)				
2008	2093	1247	1999	1181
2012	547	316	546	298

^a Sedentary time excluding time at school.

^b Bases given are for total sedentary time (television viewing time or other sedentary time).

Table 3.20

Children's total sedentary time, 2008 and 2012, by BMI category, age and sex

Aged 2-15 with valid height and weight measurements 2008, 2012

Mean daily number of sedentary hours in the last week, within age group ^a	BMI category ^b			
	Boys		Girls	
	Not overweight or obese	Overweight or obese	Not overweight or obese	Overweight or obese
2008				
Aged 2-10				
Weekdays				
Mean number of hours	2.9	3.3	2.9	3.3
Standard error of the mean	0.04	0.10	0.04	0.08
Median	2.7	3.0	2.8	3.0
Weekend days				
Mean number of hours	3.6	3.9	3.7	4.0
Standard error of the mean	0.06	0.11	0.06	0.10
Median	3.0	4.0	3.5	4.0
Aged 11-15				
Weekdays				
Mean number of hours	4.0	4.3	4.2	4.4
Standard error of the mean	0.09	0.09	0.07	0.09
Median	4.0	4.0	4.0	4.0
Weekend days				
Mean number of hours	4.7	5.1	4.7	5.1
Standard error of the mean	0.10	0.13	0.10	0.12
Median	4.0	5.0	4.0	5.0
2012				
Aged 2-10				
Weekdays				
Mean number of hours	2.8	3.0	2.9	2.7
Standard error of the mean	0.09	0.13	0.10	0.14
Median	2.8	3.0	2.5	2.5
Weekend days				
Mean number of hours	3.7	4.1	3.7	3.7
Standard error of the mean	0.11	0.20	0.10	0.21
Median	3.5	4.0	3.3	3.5
Aged 11-15				
Weekdays				
Mean number of hours	4.2	4.0	3.9	4.1
Standard error of the mean	0.17	0.19	0.14	0.21
Median	4.0	3.5	3.8	4.0
Weekend days				
Mean number of hours	5.2	4.8	4.6	4.4
Standard error of the mean	0.22	0.25	0.17	0.25
Median	5.0	4.5	4.0	4.0
Bases (unweighted)^c				
2008 aged 2-10	1319	536	1397	505
2008 aged 11-15	736	429	761	396
2012 aged 2-10	324	108	325	99
2012 aged 11-15	150	82	147	85
Bases (weighted)				
2008 aged 2-10	1259	497	1250	446
2008 aged 11-15	710	406	685	353
2012 aged 2-10	315	99	304	90
2012 aged 11-15	175	90	156	91

^a Sedentary time excluding time at school.

^b Overweight was defined as at or above the 85th but below the 95th UK National BMI centile; obese was defined as at or above the 95th UK National BMI centile.

^c Bases given are for total sedentary time (television viewing time or other sedentary time).