CO 1.9: Physical Activity at ages 11, 13 and 15

Definitions and methodology

Data for physical activity considers the frequency of moderate-to-vigorous physical activity as reported by 11, 13 and 15 year olds for the years 2001/02 and 2005/06. Indicators are taken from the Health Behaviour in School-aged Children Survey (HBSC). Moderate-to-vigorous physical activity refers to exercise undertaken for at least an hour which increases both heart rate and respiration (and leaves the child out of breath sometimes) on 5 or more days per week (Prochaska *et al.*, 2001). Estimates for each country use reported physical activity rates and sample sizes for 11, 13 and 15 year old boys and girls to calculate weighted overall rates for the 11-to-15 year old age group.

Undertaking physical activity in adolescence can set standards for adult physical activity levels, and therefore indirectly influence health outcomes in later life. More direct links to adult health are found for physical activity in adolescence on breast cancer rates and bone health in later life. The benefits of adolescent physical activity on health can be dependent on the activity type (for instance running instead of swimming). Nonetheless, research supports the role of physical activity in adolescence in the treatment of a range of youth health issues including, asthma, mental health, bone health and obesity (Hallal *et al.*, 2006; Currie *et al.*, 2008).

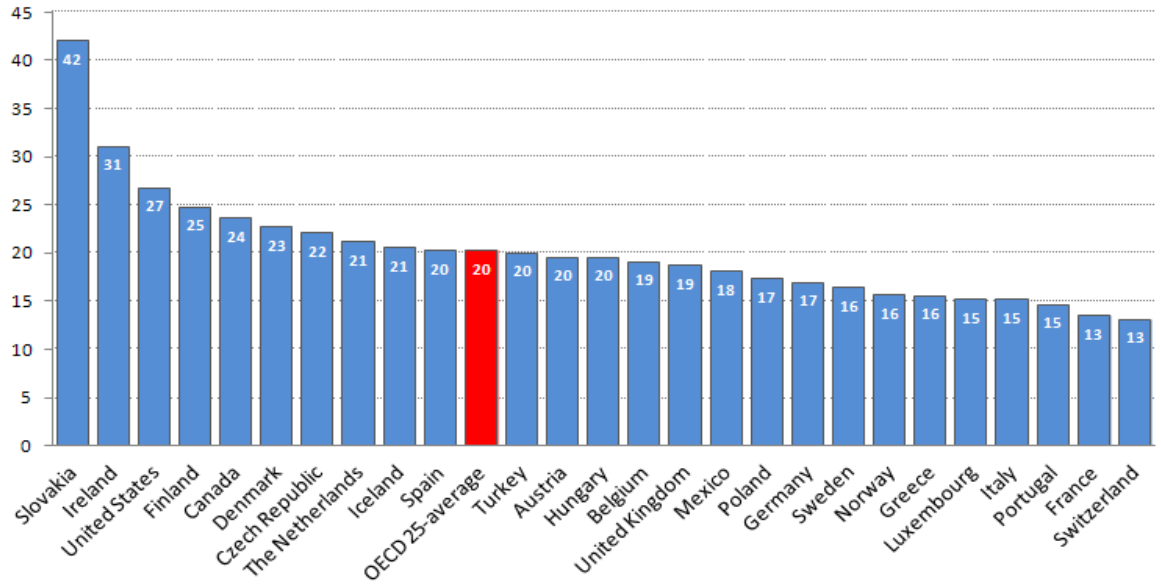
Key Findings

Around one in five OECD children undertake moderate exercise regularly (Chart CO1.9.A). In 2005/06 children in Switzerland and France were least likely to exercise regularly, whereas in the Slovak Republic and Ireland over 40 and 30 percent of children aged 11 to 15 exercised regularly.

The country rankings reported in Chart CO1.9.A vary according to the child's age and gender. France stands out at the lower end, especially for girls, at all ages. There is very little change in the rates of exercise amongst boys in the United States at ages 11, 13 and 15, with one in three children exercising regularly. Boys consistently undertake more physical activity than girls, across all countries and all age groups.

Other relevant indicators: CO1.7 *Obesity*; CO1.8 *Healthy eating*; CO4.2 *Prevalence of smoking*

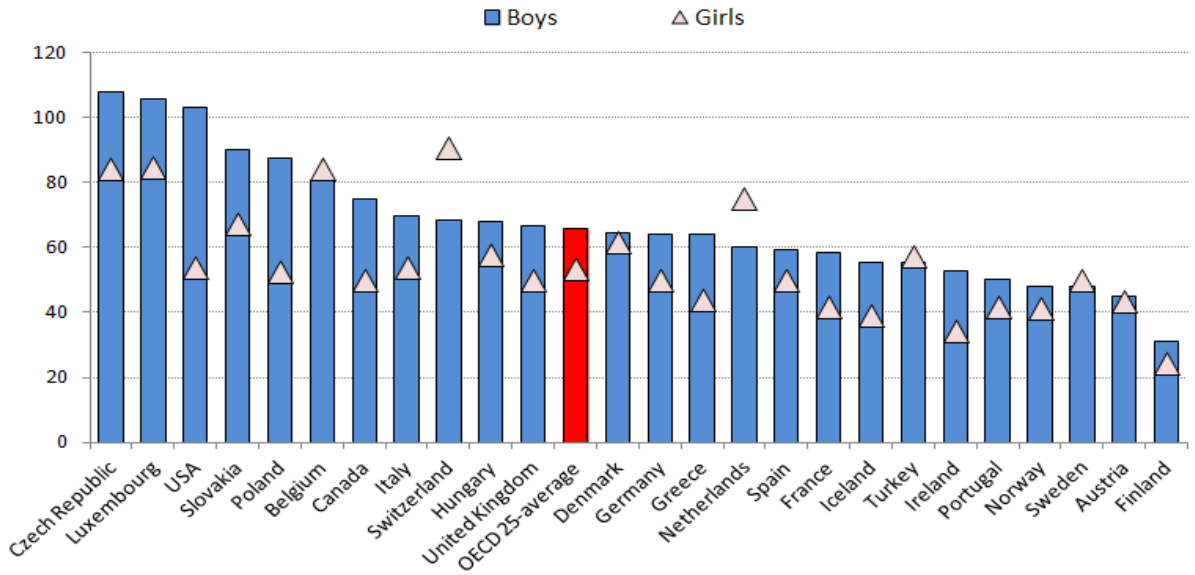
Chart CO1.9.A. One in five OECD children undertake moderate exercise regularly
Percentage of 11, 13 and 15 year-olds doing moderate-to-vigorous physical activity daily in the past week (2005/06)



Source: Health Behaviour in School-aged Children Survey, 2005/06.

Undertaking regular exercise in childhood is important for regular exercise later in life and adult health outcomes (Prochaska *et al.*, 2001). It is of concern therefore, that physical activity tends to fall between age 11 to 15 among children in most OECD countries (Chart CO1.9.B). In Austria, Finland, Norway, Portugal and Sweden the rates of children undertaking regular exercise more than halves for boys between the ages of 11 and 15. In all countries girls aged 15 are less likely to engage in regular exercise than girls aged 11. In Belgium, the Czech Republic, Luxembourg and Switzerland the rates of girls undertaking regular exercise fall by as little as one fifth of those reported at age 11. In Finland, Iceland and Ireland the rates of physical activity amongst girls drop by more than 60%.

Chart CO1.9.B. In most countries younger children are more active than older children.
Ratio of rates of physical activity of 11 to 15 year olds by sex, 2005/06



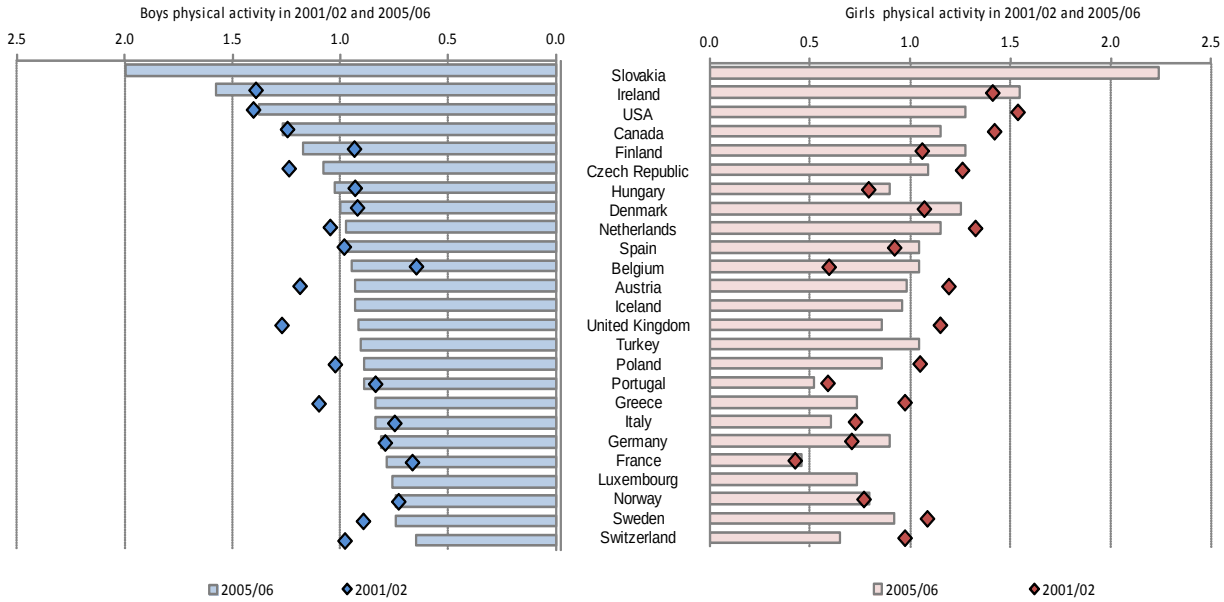
Source: Health Behaviour in School-aged Children Survey, 2005/06.

Comparability and data issues

To compare levels of regular exercise between 2001/02 and 2005/06 results are reported in relation to the OECD average (Chart CO1.9.C). In 2001/02 rates refer to children reporting an hour of moderate to vigorous exercise 5 days a week, in 2005/06 figures refer to exercise of this type 7 days a week. Rates of boys exercising 5 days a week were above the OECD average in Austria, Greece, the Netherlands, Poland and the United Kingdom in 2001/02, but fell below the average rates for 7 days of exercise in 2005/06. Denmark, Finland and Hungary are countries where rates of physical activity 5 days a week were below the OECD average in 2001/02 but were amongst the higher performers for 7 days in 2005/06. For boys, only Canada, Ireland and the United States have been consistently high performers on measures of physical activity in both waves. For girls, Belgium and Spain have turned from below average performances in 2001/02 to above average by 2005/06. In Austria, Poland, Sweden and the United Kingdom rates of physical activity among girls have dropped below the OECD average since 2001/02.

Chart CO1.9.C. Rates of physical activity have been above the OECD average for children of both sexes in Ireland, the United States and Canada

Standardised rates of physical activity (OECD average = 1) by sex HBSC surveys in 2001/02 and 2005/06



Source: Health Behaviour in School-aged Children Survey, 2005/06.

All data for this indicator are taken from the survey of Health Behaviour in School—aged Children (HBCS) undertaken in 1985/86, 1989/90, 1993/94, 1997/98, 2001/02, 2005/06.

In 2001/02, reported figures of physical activity are different to those in 2005-06. In 2001/02 figures are reported as proportions of children who average 5 days of physical activity in a typical week and the week before the survey. In 2005/06 figures report the percentage of children who undertake physical activity every day in the 7 days before the survey. Results compared between the survey waves are standardized to the OECD average.

In 2001/02, data for Germany are for four Länder (Berlin, Hessen, North Rhine-Westphalia and Saxony) and five Länder in 2005/06 (Berlin, Hamburg, Hesse, North Rhine-Westphalia, and Saxony). For both waves estimates for the United Kingdom report data for England only, Belgium figures are an average of Flemish and French figures. Data is drawn from school-based samples; Australia, Japan, Korea, Mexico and New Zealand are missing throughout.

Sources and further reading: Prochaska, JM, Prochaska, JO, and Levesque, DA. A transtheoretical approach to changing organizations, *Adm Policy Ment Health* 2001 March, 28(4):247–61; Hallal, PC, Victora, CG, Azevedo, MR, and Wells JC. Adolescent physical activity and health: a systematic review, *Sports Medicine* 2006, 36(12):1019-30; Currie C et al (eds) (2008) Inequalities in young people's health: international report from the HBSC 2006/06 survey, *Health Policy for Children and Adolescents, No.5*, WHO Regional Office for Europe, Copenhagen; OECD (2010), Obesity and the Economics of Prevention: Fit not Fat, OECD, Paris.