2. NON-MEDICAL DETERMINANTS OF HEALTH

2.3. Physical activity at ages 11, 13 and 15

Undertaking physical activity in adolescence is beneficial for health, and can set standards for adult physical activity levels, thereby indirectly influencing health outcomes in later life. Research supports the role that physical activity in adolescence has in the prevention and treatment of a range of youth health issues including asthma, mental health, bone health and obesity. More direct links to adult health are found between physical activity in adolescence and its effect on overweight and obesity and related diseases, breast cancer rates and bone health in later life. The health effects of adolescent physical activity are largely dependent on the activity type, e.g. water physical activities in adolescence are effective in the treatment of asthma, and exercise is recommended in the treatment of cystic fibrosis (Hallal et al., 2006; Currie et al., 2008).

Some of the factors influencing the levels of physical activity undertaken by adolescents include the availability of space and equipment, the child's present health conditions, their school curricula and other competing pastimes.

One in five children in OECD countries undertake moderate-to-vigorous exercise regularly, according to results from the 2005-06 HBSC survey (Figure 2.3.1). Children in Switzerland and France are least likely to exercise regularly, whereas the Slovak Republic and Ireland stand out as strong performers with over 40 and 30% respectively of children aged 11 to 15 exercising for a total of at least 60 minutes per day over the past week. The country rankings reported vary according to the child's age. France appears at the lower end, especially for girls, at all ages. There is very little change in the rates of exercise among boys in the United States at ages 11, 13 and 15, with one in three children meeting the recommended guidelines throughout all ages. Boys consistently undertake more physical activity than girls, across all countries and all age groups.

It is of concern that physical activity tends to fall between ages 11 to 15 for most OECD countries (Figure 2.3.2), with boys in the Czech Republic, Luxembourg and the United States the only exceptions. In Portugal, Norway, Sweden, Austria, and Finland, the rates of exercising among boys more than halve between ages 11 and 15. The rates of girls exercising to recommended levels also falls between

the ages of 11 and 15 years. In the Czech Republic, Luxembourg, Belgium, and Switzerland, rates for 15-year-old girls fall to as little as one-fifth of those reported at age 11. Similarly, in Iceland, Ireland and Finland, rates of physical activity among girls fall by over 60%.

To compare levels of exercise between 2001-02 and 2005-06, results are reported in relation to the OECD average (Figure 2.3.3). In 2001-02, rates refer to children reporting an hour of moderate to vigorous exercise five days a week, but in 2005-06 figures refer to exercise of this type seven days a week. Boys' rates were above the OECD average in the Netherlands, Austria, the United Kingdom, Poland and Greece in 2001-02, but fell below the average in 2005-06. Finland, Hungary, and Denmark are countries where rates of physical activity were below the OECD average in 2001-02, but were among the higher performers in 2005-06. For boys, only Ireland, the United States and Canada have been consistently high performers on measures of physical activity in both waves. For girls, Spain and Belgium have moved from below average performances in 2001-02 to above average in 2005-06. In Sweden, Poland, the United Kingdom, and Austria, rates of physical activity among girls have fallen below the OECD average since 2001-02.

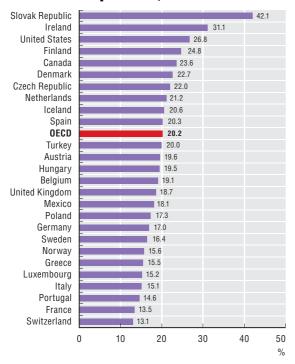
Definition and deviations

Data for physical activity considers the regularity of moderate-to-vigorous physical activity as reported by 11-, 13- and 15-year-olds for the years 2001-02 and 2005-06. 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 five or more days per week in 2001-02, and seven days a week in 2005-06.

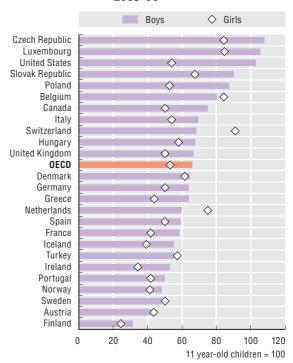
Indicators are taken from the Health Behaviour in School-aged Children Survey (HBSC). Data are drawn from school-based samples, but some countries report regional results only. The survey was not carried out in Australia, Japan, Korea, Mexico and New Zealand.

2.3. Physical activity at ages 11, 13 and 15

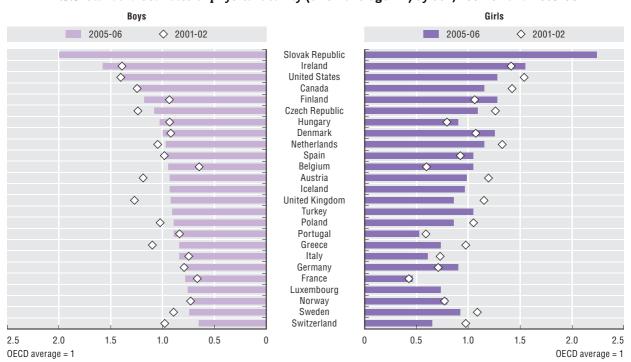
2.3.1 Children aged 11-15 years doing moderate-to-vigorous physical activity daily in the past week, 2005-06



2.3.2 Comparing physical activity of 11- and 15-year-old children by sex, 2005-06



2.3.3 Standardised rates of physical activity (OECD average = 1) by sex, 2001-02 and 2005-06



Source: Currie et al. (2004, 2008).

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