## 2. NON-MEDICAL DETERMINANTS OF HEALTH

# 2.4. Overweight and obesity among children

Children who are overweight or obese are at greater risk of poor health, both in adolescence and in adulthood. Being overweight in childhood increases the risk of developing cardiovascular disease or diabetes, as well as related social and mental health problems. Excess weight problems in childhood are associated with an increased risk of being an obese adult, at which point certain forms of cardiovascular diseases, cancer, osteoarthritis, a reduced quality of life and premature death can be added to the list of health concerns (Sassi, 2010).

Evidence suggests that even if excess childhood weight is lost, adults who were obese children retain an increased risk of cardiovascular problems. And although dieting or increased physical activity can combat obesity, children are at a greater risk of again putting on weight when they revert to previous lifestyles. In addition, dieting may lead to eating disorders, symptoms of stress and postponed physical development.

Figure 2.4.1 shows estimates by the International Association for the Study of Obesity of the prevalence of overweight (including obesity) in OECD and emerging countries among school-aged children aged 5-17 years, based on latest available national studies which measure height and weight, and using IASO definitions of overweight/obesity. One-in-five children are affected by excess body weight across all countries, and in Greece, the United States and Italy the figure is closer to one third. Only in China, Korea and Turkey are 10% or less of children overweight. In most countries, boys have higher rates of overweight and obesity than do girls. Girls tend to have higher rates in Nordic countries (Sweden, Norway, Denmark), as well as in the United Kingdom, the Netherlands and Australia.

Many countries recognise the need for standardised and harmonised surveillance systems on which to base policy development to address overweight and obesity among children. In response to this need, the WHO European Childhood Obesity Surveillance Initiative (COSI) aims to routinely measure trends in overweight and obesity in primary-school children. Figure 2.4.2 presents the proportion of overweight (including obese) for 6- to 9-year-old children, as measured during the first COSI data collection round undertaken in 2007-08. Prevalence estimates were based on the 2007 WHO recommended growth reference for school-aged children and adolescents (de Onis *et al.*, 2007). There are important differences among children with excess weight problems, not only across countries, but also according to their age. In general, older children have more excess weight than younger children.

Rates of overweight among boys and girls are increasing across the OECD. In many developed countries, child obesity levels doubled between the 1960s and 1980s, and have doubled again since then. Even in emerging countries, the prevalence of obesity is rising, especially in urban areas where there is more sedentary behaviour and a greater access to energy-dense foods (Sassi, 2010).

Childhood is an important period for forming healthy behaviours. The school environment provides an opportunity to ensure that children understand the importance of good nutrition and physical activity, and can benefit from both. Studies show that locally focussed actions and interventions, especially those targeting 5-12 year-olds, can be effective in changing behaviours (Sassi, 2010).

### Definition and comparability

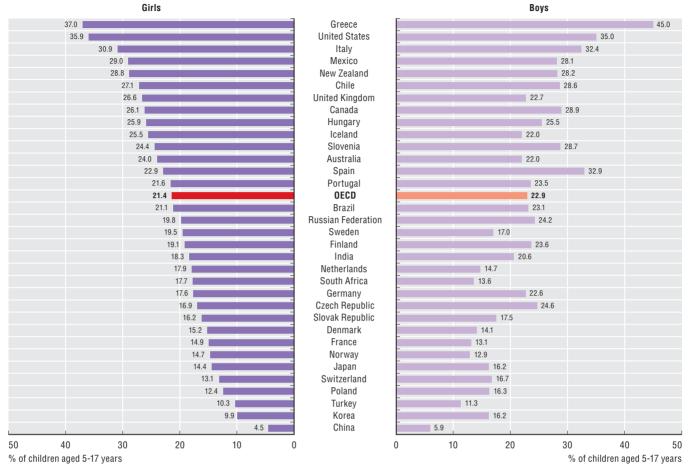
Estimates of the prevalence of child overweight were made by the International Association for the Study of Obesity (IASO). The estimates are based on national surveys of measured height and weight among children. Definitions of overweight and obesity among children may sometimes vary among countries, although wherever possible IASO age- and sex-specific cut-off points were used (Cole *et al.*, 2000). Calculated for ages 2 to 18, these cut-off points can be used for different ethnicities, and also link to widely-used adult cut-off points.

For the WHO European Childhood Obesity Surveillance Initiative (COSI), trained examiners took anthropometric measurements which were standardised according to a common protocol. Overweight was defined as the proportion of children with BMI-for-age values greater than one standard deviation, based on WHO recommended cut-offs for school-age children and adolescents (de Onis *et al.*, 2007). Body weight was adjusted for the clothes worn when measured, and extreme values (less than or greater than five standard deviations) were excluded from calculations.

#### 2.4. Overweight and obesity among children

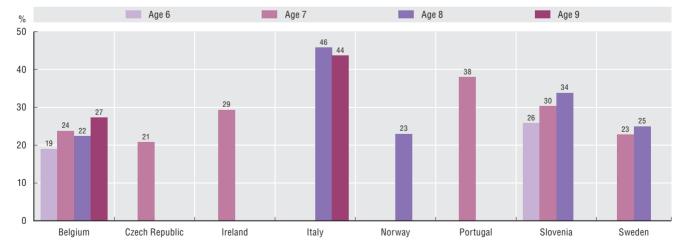
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#### 2.4.1 Children aged 5-17 years who are overweight (including obese), latest available estimates



Source: International Association for the Study of Obesity (2011).

StatLink ans http://dx.doi.org/10.1787/888932523994



#### 2.4.2 Prevalence of overweight (including obesity) among 6- to 9-year-old children in eight OECD countries, 2007-08

Source: WHO Regional Office for Europe, forthcoming.

StatLink ans http://dx.doi.org/10.1787/888932524013



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