4. Obesity

Definition and measurement

The most frequently used measure of being overweight or obese is based on the body mass index (BMI). The BMI is defined as weight/height^2 (with weight in kilograms and height in metres). Adults with a BMI between 25 and 30 are defined as overweight, and those with a BMI over 30 as obese (WHO, 1997). This classification may not be suitable however for all ethnic groups, and adult thresholds are not suitable for children.

For most countries, estimates of overweight and obesity rates are based on self-reports of height and weight from health interview surveys. The exceptions are Australia, the Czech Republic, Luxembourg, New Zealand, the United Kingdom and the United States, where estimates are derived from actual measurement of height and weight. BMI estimates based on height and weight measurement are generally higher and more reliable than self-reports. For instance, in the United States, the adult obesity rate based on face-to-face interviews was 22% in 1999, compared with 31% in that same year based on actual measurements.

In many OECD countries, the growth in obesity has become a major public health concern. Obesity is a risk factor for hypertension, high cholesterol, diabetes, cardiovascular diseases, asthma, arthritis and some cancers. In the United States a study estimated that obesity costs exceed the *combined* costs of smoking and excessive drinking (Sturm, 2002). Health care costs attributed to obesity accounted for about 5-7% of total health spending in the United States in the late 1990s, and 2 to 3.5% of health spending in other countries like Canada, Australia and New Zealand (Thompson and Wolf, 2001). United States estimates indicate that the cost of health care services is 36% higher and the cost of medication 77% higher for obese people than for people of normal weight (Sturm, 2002).

There are many overweight and obese people in most OECD countries. Half or more of the adult population is now overweight or obese in Mexico, the United States, the United Kingdom, Australia, Greece, New Zealand, Luxembourg, Hungary, the Czech Republic, Canada, Germany, Portugal, Finland, Spain and Iceland. There are fewer overweight and obese people in OECD's two Asian countries (Japan and Korea) and in some European countries (France and Switzerland). Focussing only on obesity, which presents greater health risks than being overweight, the prevalence of obesity varies tenfold, from a low of 4% in Korea and Japan, to over 30% in the United States and Mexico (HE4.1).

Generally women are no more overweight and obese than men. However, in certain countries there are more overweight and obese men (Greece) whilst in others there are more overweight and obese women (Turkey, Mexico) (HE4.2).

More people are becoming overweight and obese. The rate of obesity has more than doubled over the past 20 years in the United States. It has almost tripled in Australia. It has more than tripled in the United Kingdom (HE4.3). Obesity rates in many western European countries have also increased substantially over the past decade.

More people are becoming overweight and obese across all population groups. But evidence from the United States, Canada and the United Kingdom indicates that overweight and obese people are more common among those in disadvantaged socio-economic groups, especially amongst women (Statistics Canada and Center for Disease Control and Prevention, 2004).

More children are also becoming overweight and obese. Child obesity rates are in double-figures in most OECD countries, with highs of one-third of children aged 13-14 in Spain (2000-02); 29% of children aged 5-17 in England (2004); and about one-fourth of children aged 5-17 in Italy (1993-2001) and 5-15 in Belgium (1998-99) (International Association for the Study of Obesity, 2007).

Further reading

Australian Institute of Health and Welfare (2004), *Australia's Health 2004*, AIHW Cat. No. AUS 44, Canberra.

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Sturm, R. (2002), "The Effects of Obesity, Smoking and Drinking on Medical Problems and Costs", *Health Affairs*, Vol. 21, No. 2, pp. 245-253.

Thompson, D. and A.M. Wolf (2001), "The Medical-care Burden of Obesity", *Obesity Reviews*, Vol. 2, pp. 189-197.

World Health Organisation (1997), *Obesity: Preventing and Managing the Global Epidemic*, WHO, Geneva.

Figure note

Figures HE4.1 and HE4.2: Note 1: For Australia, the Czech Republic, Luxembourg, New Zealand, the United Kingdom and the United States, figures are based on actual height and weight measurement, rather than self-reports.

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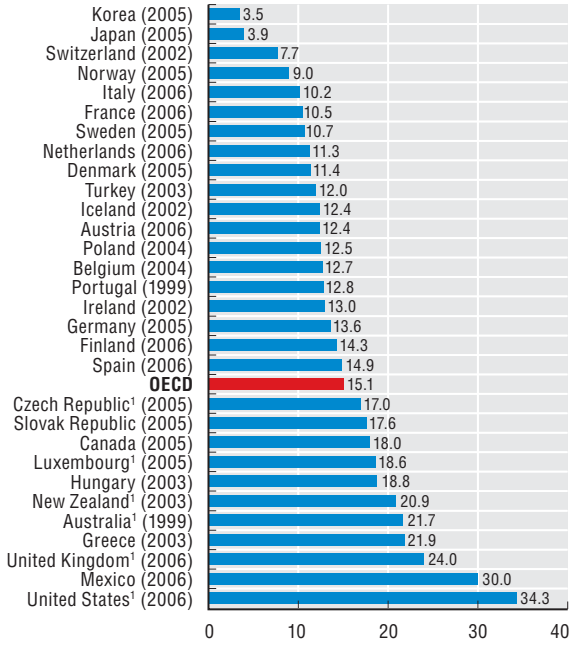
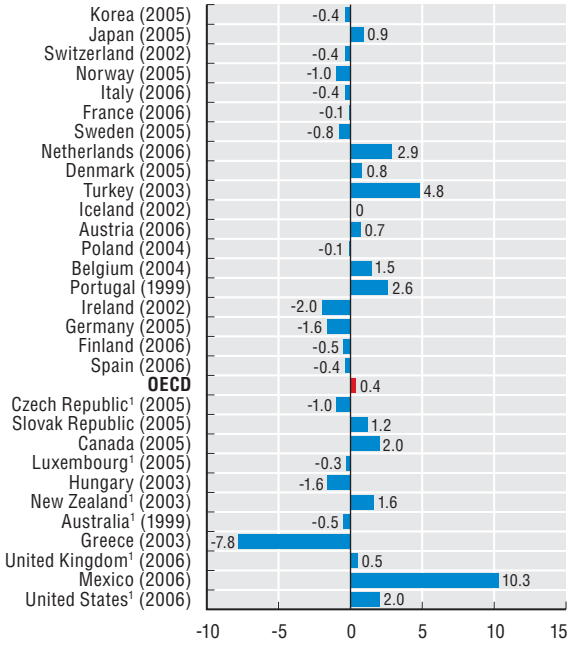
HE4.1. High obesity rates in many OECD countries

Percentage of adult population with BMI>30



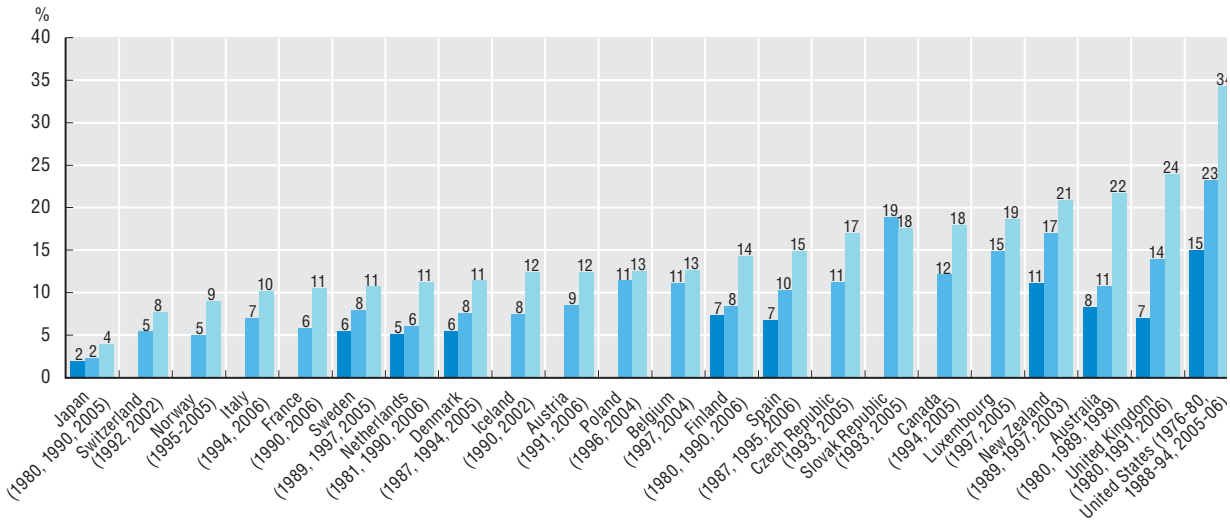
HE4.2. Women are generally no more or less obese than men

Difference in percentage of females and males with BMI>30



HE4.3. Increasing obesity rates across the OECD

Percentage of adult population with a Body Mass Index over 30 over time, various years



Source: OECD (2008), *OECD Health Data 2008*, CD-Rom, OECD, Paris (*www.oecd.org/health/healthdata*).

StatLink http://dx.doi.org/10.1787/550600403726