

The obesity epidemic slowed down in several OECD countries during the past three years. Rates grew less than previously projected, or did not grow at all, according to new data from ten OECD countries. Child obesity rates also stabilised in England, France, Korea and United States. However, rates remain high and social disparities in obesity are unabated. Many governments have stepped up efforts to tackle the root causes of obesity, embracing increasingly comprehensive strategies and involving communities and key stakeholders. There has been a new interest in the use of taxes on foods rich in fat and sugar, with several governments (e.g. Denmark, Finland, France, Hungary) passing new legislation in 2011. This policy brief presents an update of analyses of trends and social disparities in obesity originally presented in OECD's report "Obesity and the Economics of Prevention: Fit not Fat", published in 2010.



Until 1980, fewer than one in ten people were obese. Since then, rates doubled or tripled and in 19 of 34 OECD countries the majority of the population is now overweight or obese. OECD projections suggest that more than two out of three people will be overweight or obese in some OECD countries by 2020.

Three years on from the publication of the OECD report "Obesity and the economics of prevention: Fit not fat", rates have increased less than, or in line with, projections in most countries for which new data have become available. The data provide strong evidence that the progression of the epidemic has effectively come to a halt for the past ten years in countries such as Korea (where obesity rates have stabilised at 3-4%), Switzerland (7-8%), Italy (8-9%), Hungary (17-18%) and England (22-23%). There is, however, no sign of retrenchment of the epidemic, in any country. Rates remain very high in most of the OECD, and countries continue to experience a large burden from chronic diseases associated with obesity.

The latest data show modest increases in obesity over the past decade in countries like Spain and France, in the order of 2-3%, and larger increases in Ireland, Canada and the United States (4-5%), although an even larger increase had been expected in the United

States, based on previous OECD projections. These findings would seem to contradict the argument that economic recession might fuel obesity by making people's diets less healthy. Figures 1 and 2 illustrate the progression of obesity and overweight rates, respectively, in seven OECD countries, along with previous OECD projections (dotted lines) for overweight.

The prevalence of obesity today varies nearly tenfold among OECD countries, from a low of 4% in Japan and Korea, to 30% or more in the United States and Mexico. Current obesity rates in all OECD countries are shown in an appendix to this document.

Height and weight have been increasing since the 18th century, as income, education and living conditions gradually improved over time. While weight gains were largely beneficial to the health and longevity of our ancestors, an alarming number of people have now crossed the line beyond which further gains are dangerous. Severely obese people die 8-10 years sooner than those of normal-weight, similar to smokers, with every 15 extra kilograms increasing risk of early death by approximately 30%. Obesity is estimated to be responsible for 1% to 3% of total health expenditure in most countries (5% to 10% in the United States) and costs will rise rapidly in coming years as obesity-related diseases set in.

Figure 1. Obesity rates

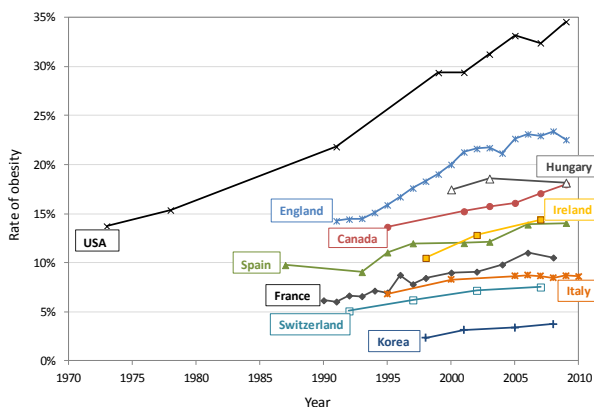
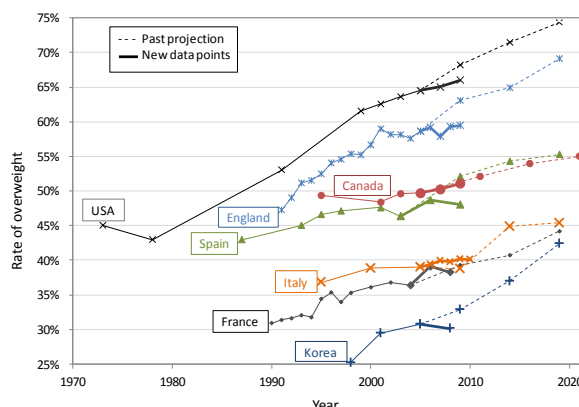


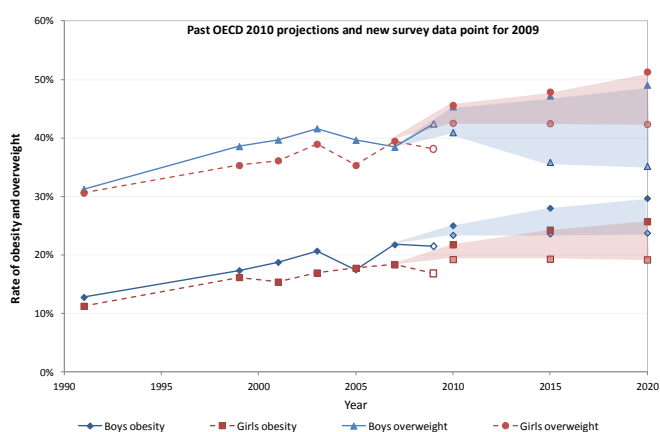
Figure 2. Overweight rates



Child obesity

New data on child obesity from four OECD countries (England, France, Korea and United States) confirm and possibly strengthen the message emerging from analyses of adult obesity. Rates evolved according to previous OECD projections or, more often, below those projections, in all four countries. Child obesity rates have effectively remained stable (at 6-8%) over the past 20 years in France. The same is true in the other three countries during the past ten years, although with some fluctuations in the United States (Figure 3). However, for child obesity as well as adult obesity, there is no clear sign of retrenchment of the epidemic, despite major policy efforts focused on children in some of the countries concerned.

Figure 3. Child obesity, United States



Estimates of the prevalence of overweight (including obesity) in OECD and emerging countries among school-aged children aged 5-17 years, collated by the International Association

for the Study of Obesity, are available in an appendix to this document. 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.

Social disparities in obesity

Women are more often obese than men, but male obesity rates have been growing faster than female rates in most OECD countries.

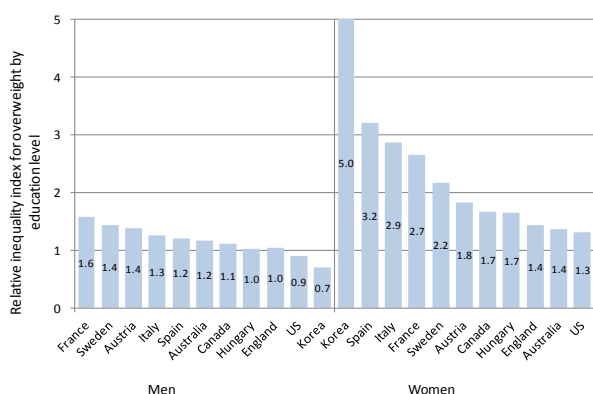
Obesity is more common among the poor and the less educated. In several OECD countries, women with little education are two to three times more likely to be overweight than more educated women, but smaller or no disparities exist for men. These disparities remained remarkably stable over the past decade. Even the latest data show no meaningful change in inequality indexes like the one reported in Figure 4 in the past three years, reflecting the failure of government policies aimed at protecting vulnerable groups.

Social disparities are also present in children (both boys and girls) in England, France and the United States, but not in Korea.

Poor health goes hand in hand with poor job prospects for many obese people. Employers

prefer normal-weight over obese candidates, partly due to expectations of lower productivity. This contributes to an employment and wage gap – in the United States, more than 40% of severely obese white women are out of work compared to just over 30% for all women. Obese people earn up to 18% less than people of normal weight. They need to take more days off, claim more disability benefits, and tend to be less productive on the job than people of normal weight. In northern European countries, obese people are up to three times more likely than others to receive a disability pension, and in the United States they are 76% more likely to suffer short-term disability. When production losses are added to health care costs, obesity accounts for over 1% of GDP in the United States.

Figure 4. Inequality index, overweight by education



Note: The index shows how many times as likely to be overweight is someone at the lowest end of the education spectrum in one country, compared to someone at the highest end.

What can governments and markets do to promote better health?

The OECD called for strong action against obesity in 2010. Analyses of the health and economic impacts of programmes to improve diet and increase physical activity led to the conclusion that comprehensive prevention strategies are needed, targeting different age groups and determinants of obesity. These would provide an affordable and cost-effective solution, saving hundreds of thousands of deaths from chronic diseases every year in the OECD area (e.g. 155 000 in Japan, 75 000 in Italy, 70 000 in England), at a cost ranging from USD 12 (Mexico) to USD 32 (Canada) per capita, only a fraction of total health expenditure, and a small proportion

of the 3% of their healthcare budgets that OECD countries now spend on prevention.

Governments can help people change their lifestyle by making new healthy options available or by making existing ones more accessible and affordable. Alternatively, they can use persuasion, education and information to make healthy options more attractive. This gentle approach is more expensive, hard to deliver and hard to monitor. A tougher approach, through regulation and fiscal measures, is more transparent but it hits all consumers indiscriminately, so can have high political and welfare costs. It may also be difficult to organise and enforce and have regressive effects.

So far, governments in the OECD area have given priority to initiatives aimed at school-age children, such as changes in school meals and vending machines, better facilities for physical activity, and health education. Many also disseminate nutrition guidelines and health promotion messages such as encouraging “active transport” – cycling and walking – and active leisure.

In the past three years, some, but not all, governments stepped-up their actions to fight obesity. Health promotion efforts were intensified, particularly through local initiatives and further measures at the school level (e.g. in France, Spain, Italy, Mexico). Co-ordinated national programmes were launched in countries like United States (*Let’s Move*), United Kingdom (*Change4Life*), Switzerland (*Actionsanté*), and others. There has been an increasing reliance on partnership with the food and beverage industry (e.g. United Kingdom and Switzerland) in the design and implementation of actions to fight obesity, particularly in product reformulation to avoid particularly unhealthy ingredients (e.g. saturated fats and too much salt), in reducing excessive portion sizes and providing healthy menu alternatives; in limiting advertising, particularly to vulnerable groups like children; and informing consumers about food contents.

But the real novelty of the last three years has been a strong and increasing interest in the use of fiscal measures to limit the consumption of foods high in fat, sugar and salt. As explained in the box below, legislation was passed by several OECD countries and further countries are expected to follow through in the near future.

“Fat taxes”: an answer to the obesity epidemic?

Several OECD countries introduced taxes on unhealthy foods and beverages in 2011 as part of their efforts to counter obesity. Taxes, along with other measures, can improve health by changing eating habits. At the same time, they may generate important revenues, which must have contributed to governments’ attraction to these measures at a time of tight fiscal constraints.

Denmark introduced a tax on foods containing more than 2.3% saturated fats (meat, cheese, butter, edible oils, margarine, spreads, snacks, etc.) in 2011. Consumers pay 16 kroner (EUR 2.15) per kilogram of saturated fat on domestic and imported food, which is equivalent to up to 30% more for a pack of butter, 8% more for a bag of chips, and 7% more for a litre of olive oil. Tax revenues are expected to be over EUR 200 million per year, and saturated fat consumption is expected to decrease by 4%. Denmark had also increased its excise taxes on chocolate, ice cream, sugary drinks and confectionery by 25% in 2010.

Also in 2011, Hungary introduced a tax on selected manufactured foods with high sugar, salt or caffeine content. Carbonated sugary drinks are among the products targeted by the new measures. The tax does not concern basic food stuffs and only affects products that have healthier alternatives. The Hungarian government is reportedly expecting to raise in excess of EUR 70 million per year from the tax.

2011 was also the year that Finland introduced a tax on confectionery products, while biscuits, buns and pastries remained exempt. The tax, originally intended to be set at almost one euro per kilogram of product, was subsequently dropped to EUR 0.75 per kilogram. At the same time, the existing excise tax on soft drinks was raised from 4.5 cents to 7.5 cents per litre.

In France, a tax on soft drinks came into force in January 2012. The tax affects both drinks with added sugars and drinks with artificial sweeteners. It is set at EUR 7.16 per hectolitre (*i.e.*, EUR 0.072 per litre or approximately EUR 0.024 for a 33cl can) for both categories. It is payable by manufacturers established in France and importers. The tax is expected to generate revenues in the region of EUR 280 million per year.

Taxation of unhealthy foods or beverages is being discussed in a number of other countries. Belgium, Ireland, Romania, and the United Kingdom are among the countries actively considering a levy on unhealthy food and/or drinks. Debates are taking place in the United States and Italy.

Will taxes affect consumption, and eventually obesity?

The impact of imposing taxes on the consumption of certain foods is determined by the responsiveness of consumers to price changes, *i.e.* price elasticity. However, it is difficult to predict how consumers will react to price changes caused by taxation. Some may respond by reducing their consumption of healthy goods in order to pay for the more expensive unhealthy goods, thus defeating the purpose of the tax. Others may seek substitutes for the taxed products, which might be as unhealthy as those originally consumed. Depending on the elasticity of the demand for the taxed products, consumers will either end up bearing an extra financial burden, or changing the mix of products they consume in ways that can be difficult to identify. The impact of the tax on government and supplier (*e.g.* food manufacturer) revenues will also depend on the elasticity of consumers’ demand for the taxed product.

If a tax is well designed, *i.e.* if it covers all possible substitute foods, consumers will likely decrease their consumption, and at the same time spend more on the taxed foods than they used to. This may displace other forms of consumption, which requires close monitoring by governments.

Will manufacturers and retailers “absorb” the tax and leave prices unchanged?

This is unlikely to happen if the tax is well designed (again, to cover all immediate substitute products). Manufacturers and retailers are more likely to pass on the tax to consumers, because they would lose further revenues if they did not. It is even possible that consumer prices will increase more than the amount of the tax, if manufacturers and retailers wish to limit their losses.

Are food taxes regressive?

Given that people with lower incomes spend more, in proportion, on food than do people with higher incomes, the former will be hit more heavily by a tax. However, OECD work showed that those with lower incomes will benefit disproportionately from the health gains deriving from a tax on unhealthy foods.

How should governments use tax revenues?

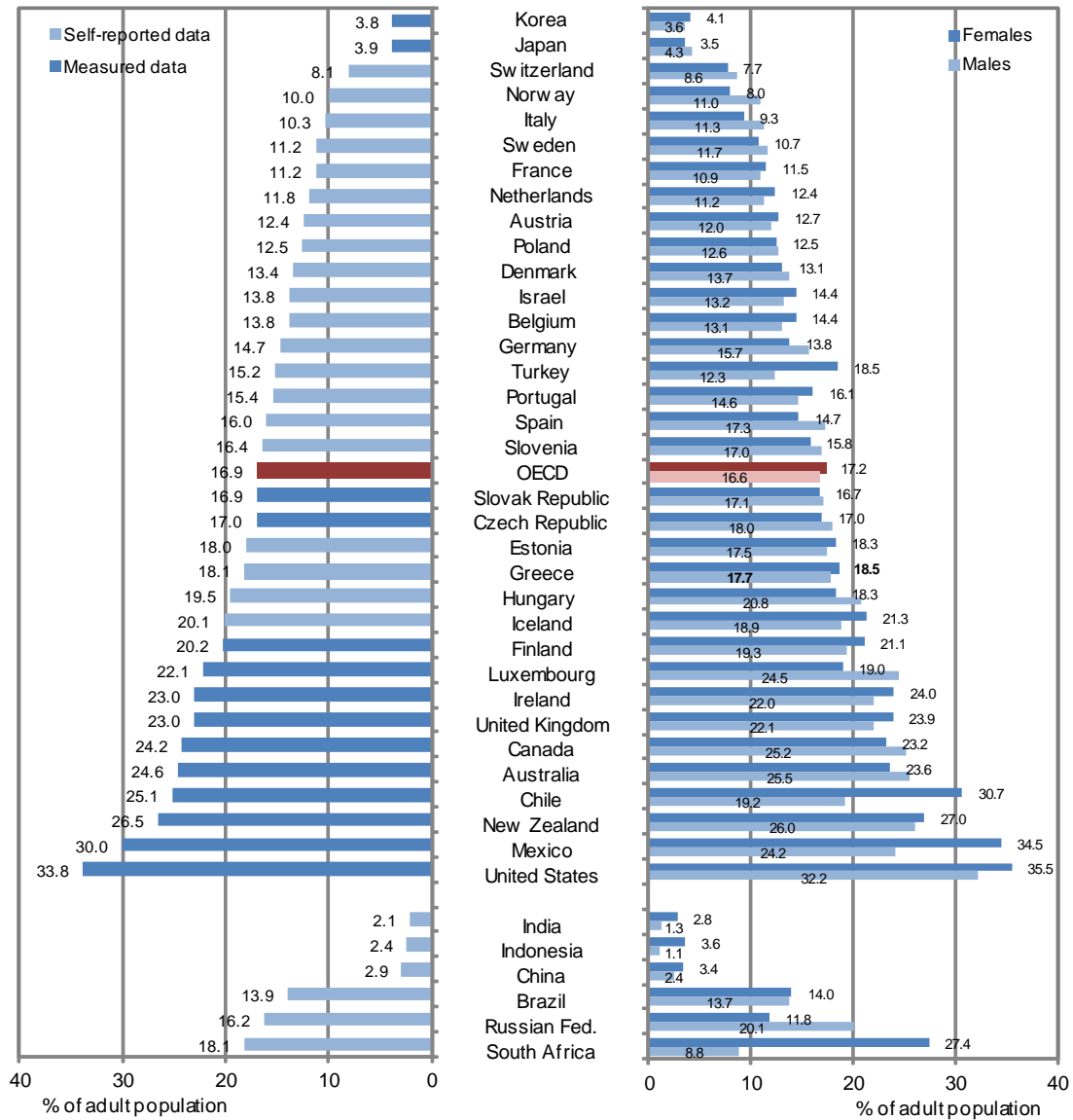
Revenues from taxes on unhealthy foods can be substantial. These offer invaluable opportunities either for attenuating any regressive impacts, or for magnifying the public health effects of the taxes, *e.g.* by coupling them with subsidies on healthy foods or with targeted health education campaigns. In France and Hungary, at least part of the revenues from the new taxes will contribute to financing health and social security expenditures.

SUMMARY OF KEY FACTS ON OBESITY AND THE ECONOMICS OF PREVENTION

- At least one in two people is now overweight or obese in over half of OECD countries. Rates are projected to increase further and in some countries two out of three people will be obese within ten years.
- The latest data show a slowdown of the epidemic in several countries, with virtually stable rates in Korea, Switzerland, Italy, Hungary and England over the past ten years, and mild increases in France and Spain. However, larger increases were recorded in Ireland, Canada and United States.
- An obese person incurs 25% higher health expenditures than a person of normal weight in any given year. Obesity is responsible for 1-3% of total health expenditures in most OECD countries (5-10% in the United States). Obese people earn up to 18% less than non-obese people.
- Poorly educated women are two to three times more likely to be overweight than those with high levels of education, but almost no disparities are found for men. OECD countries have made no progress in tackling these disparities.
- A comprehensive prevention strategy would avoid, every year, 155 000 deaths from chronic diseases in Japan, 75 000 in Italy, 70 000 in England, 55 000 in Mexico and 40 000 in Canada.
- The annual cost of such strategy would be USD 12 per capita in Mexico, USD 19 in Japan and England, USD 22 in Italy and USD 32 in Canada. The cost per life year gained through prevention is less than USD 20 000 in these five countries.

Appendix: obesity rates in the OECD and beyond

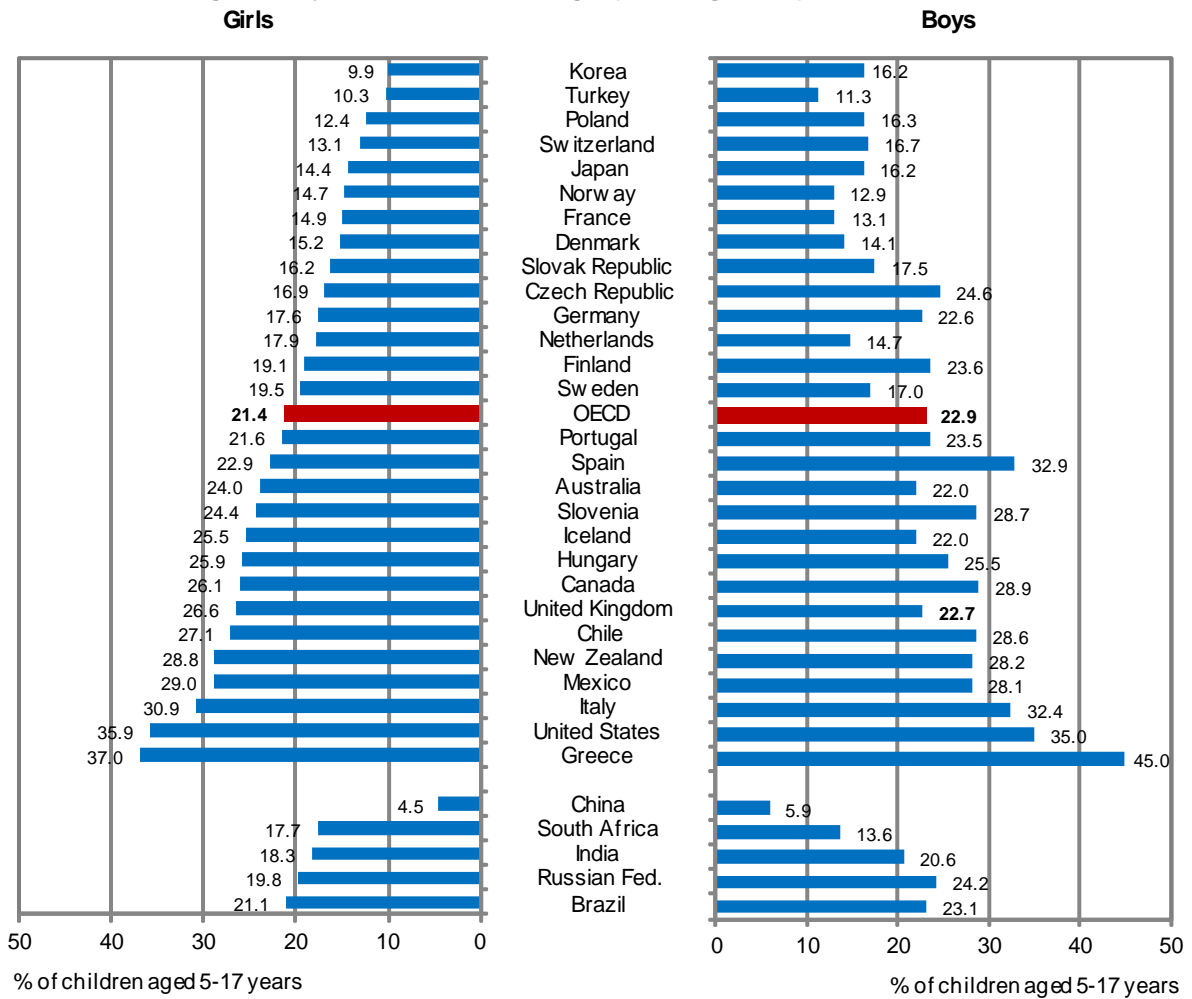
Obesity rates among adults, 2009 (or nearest year)



Source: OECD Health Data 2011; national sources for non-OECD countries.

Statlink: <http://dx.doi.org/10.1787/888932523956>

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



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

Statlink: <http://dx.doi.org/10.1787/888932523994>

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Useful links

OECD Obesity website:

www.oecd.org/health/fitnotfat

OECD Economics of prevention project:

www.oecd.org/health/prevention

OECD work on Health:

www.oecd.org/health