

Obesity Update 2017



Did you know?

- 🍏 More than one in two adults and nearly one in six children are overweight or obese in OECD countries.
- 🍏 Adult obesity rates are highest in the United States, Mexico, New Zealand and Hungary, while they are lowest in Japan and Korea.
- 🍏 Obesity rates are projected to increase further by 2030, and Korea and Switzerland are the countries where obesity rates are projected to increase at a faster pace.
- 🍏 Social inequalities in overweight and obesity are strong, especially among women. In about half of the eight countries for which data are available, less-educated women are two to three times more likely to be overweight than those with a higher level of education.
- 🍏 In the last few years, some OECD countries have relied on fiscal policies to increase the price of potentially unhealthy products to encourage a healthier diet such as in Belgium, Chile, Finland, France, Hungary and Mexico.
- 🍏 This *Obesity Update* focusses on communication policies designed to empower people to make healthier choices, which are increasingly used in OECD countries.
- 🍏 New developments in communication policies include new easy-to-understand schemes of food labelling, mass media campaigns to increase public awareness, the use of social networks and new technologies for health promotion campaigns, and reinforced regulation of marketing of potentially unhealthy products, especially when directed to children.
- 🍏 Comprehensive policy packages, including not only communication but also school-based interventions, interventions in primary care settings, and broader regulatory and fiscal policies, provide an affordable and cost-effective solution to tackle obesity.



Obesity Update 2017: introduction

Today, more than one in two adults and nearly one in six children are overweight or obese in the OECD area. The obesity epidemic has spread further in the past five years, although at a slower pace than before. Despite this, new projections show a continuing increase of obesity in all studied countries. Social disparities in obesity persist and have increased in some countries. A nearly tenfold variation in obesity and overweight rates can be seen across OECD countries.

In the last few years, new policy strategies devised to fight obesity have emerged. This *Obesity Update* focusses on a selection of those, specifically at communication policies aimed to tackle obesity, in particular by improving nutrient information displayed on food labels, using social and new media to sensitise the population, or by regulating the marketing of food products. Better communication helps empower people to make healthier choices. However, comprehensive policy packages, including not only communication but also broader regulatory and fiscal policies, are needed to tackle obesity effectively.





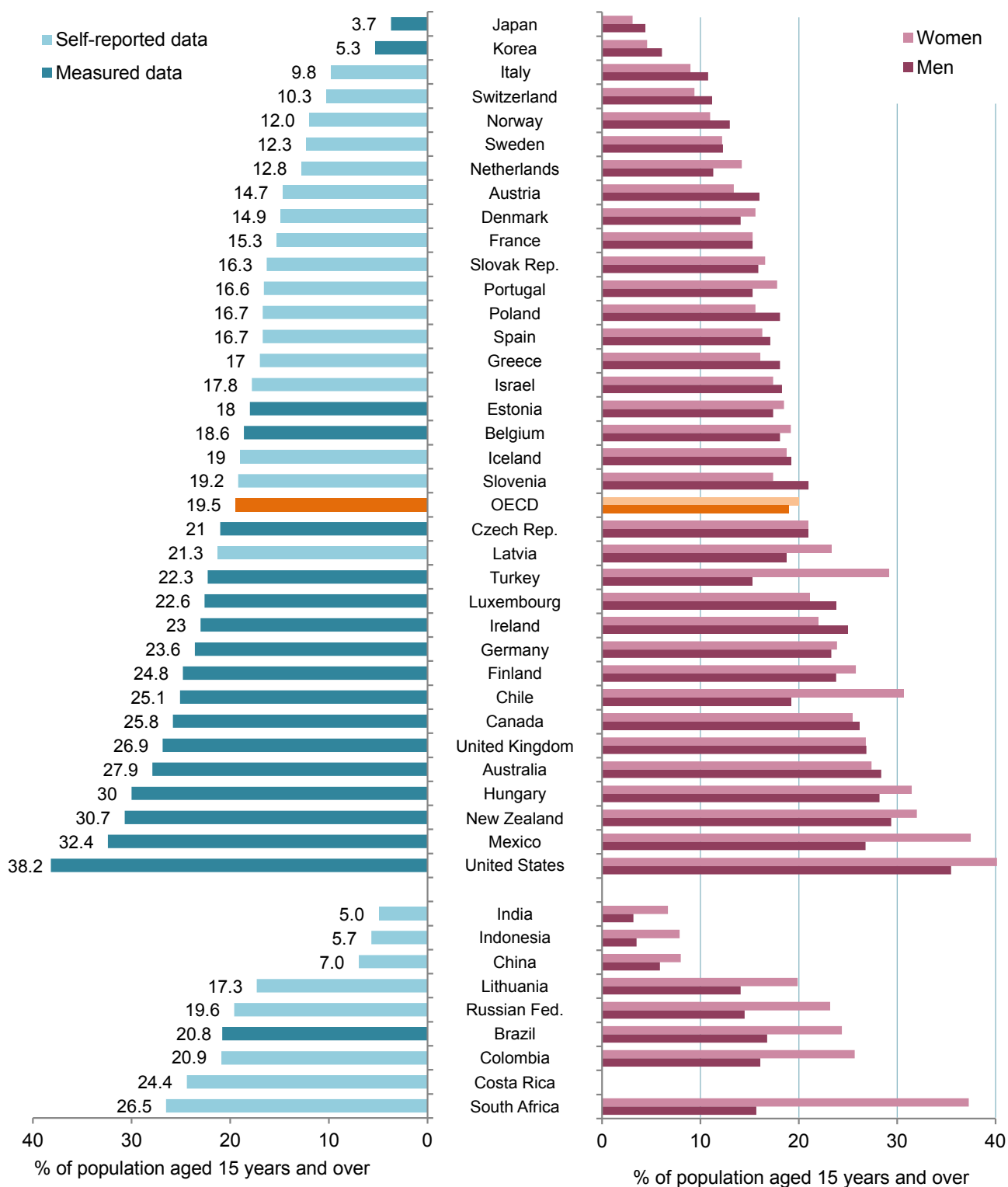
One in five adults is obese in OECD countries

In 2015, across the OECD, 19.5% of the adult population was obese (Figure 1). This rate ranges from less than 6% in Korea and Japan to more than 30% in Hungary, New Zealand, Mexico and the United States. More than one in four adults is obese in Australia, Canada, Chile, South Africa and the United Kingdom. Overweight and obesity rates have grown rapidly in England, Mexico and the United States since the 1990s, while the increase has been slower in the other seven OECD countries for which trend data are available (Figure 2). Over the past decade, the prevalence rate of overweight and obesity has increased in Canada, France, Mexico, Switzerland and the United States, while it has stabilised in England, Italy, Korea and Spain. There is, however, no clear sign of retrenchment of the epidemic, in any country.

Nearly one in six children is overweight or obese

The share of children who are overweight or obese at age 15 ranges from 10% in Denmark to 31% in the United States (Figure 3). Despite policies put in place in OECD countries for a number of years, the number of 15-year-olds who report to be overweight or obese has steadily increased since 2000 in the majority of countries, according to the Health Behaviour in School-aged Children survey (Inchley et al., 2016). A more detailed analysis covering children aged 3 to 17 at several points in time shows relatively stable rates in France up to 2012, while trends have been somewhat upward again for both boys and girls in England since 2012, and since 2011 for boys in the United States (Figure 4).

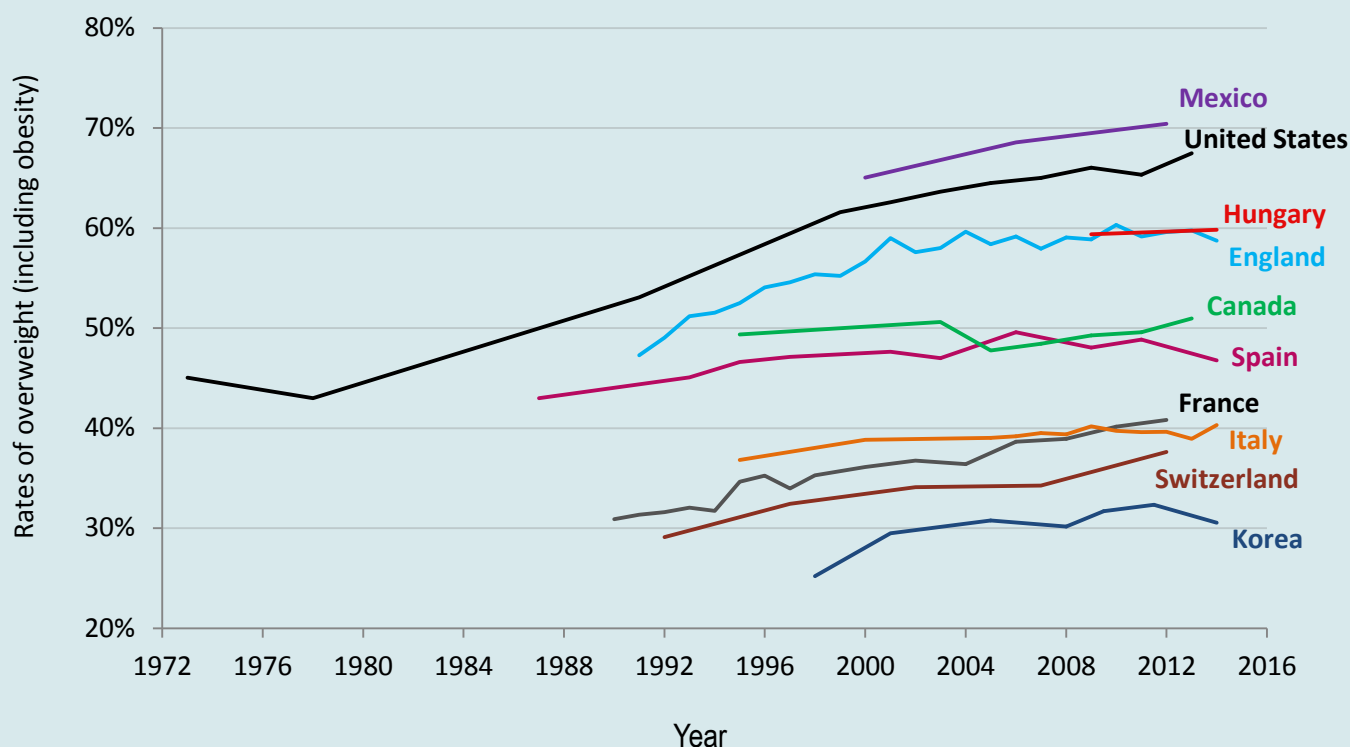
Figure 1: Obesity among adults, 2015 or nearest year



Source: OECD (2017), OECD Health Statistics 2017 (Forthcoming in June 2017). www.oecd.org/health/health-data.htm

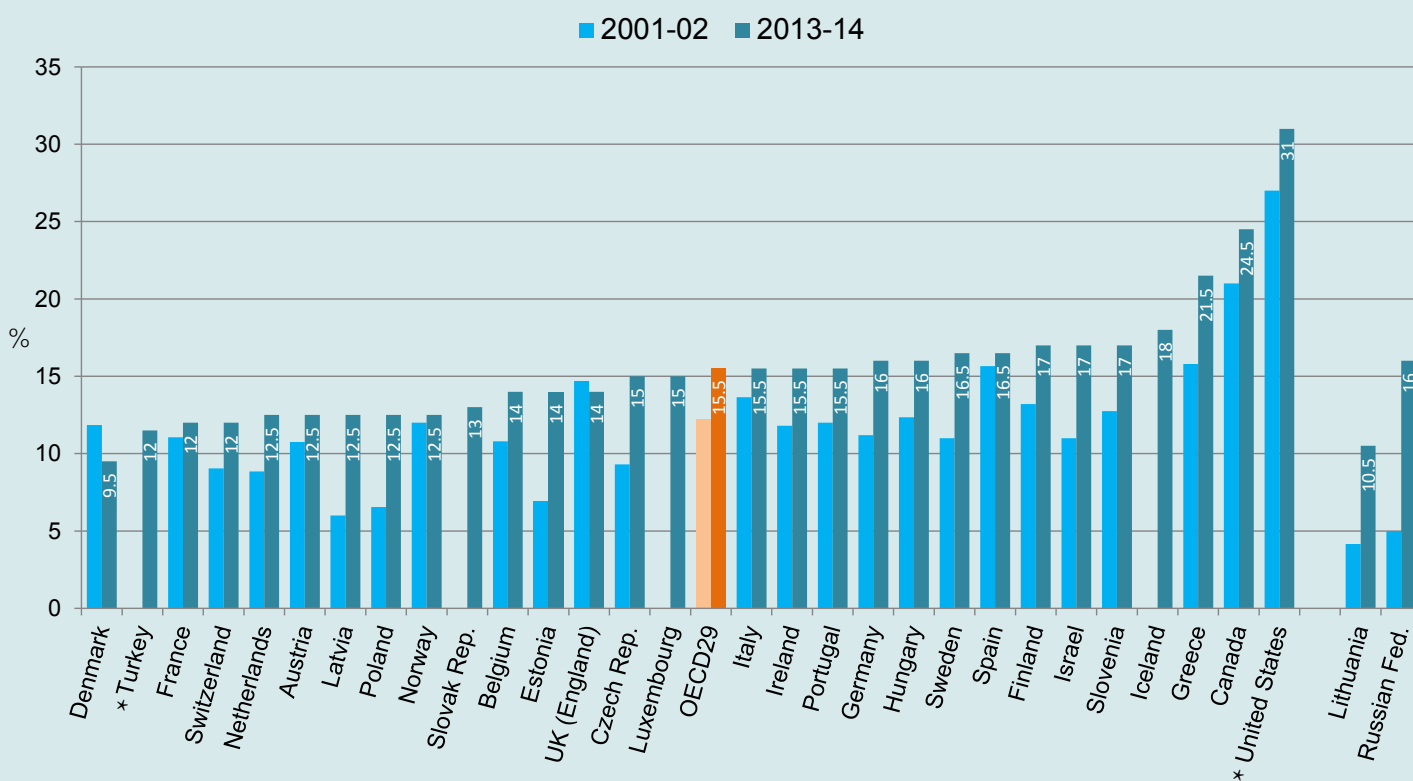
Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Figure 2: Rising overweight (including obesity) rates in adults aged 15-74 years



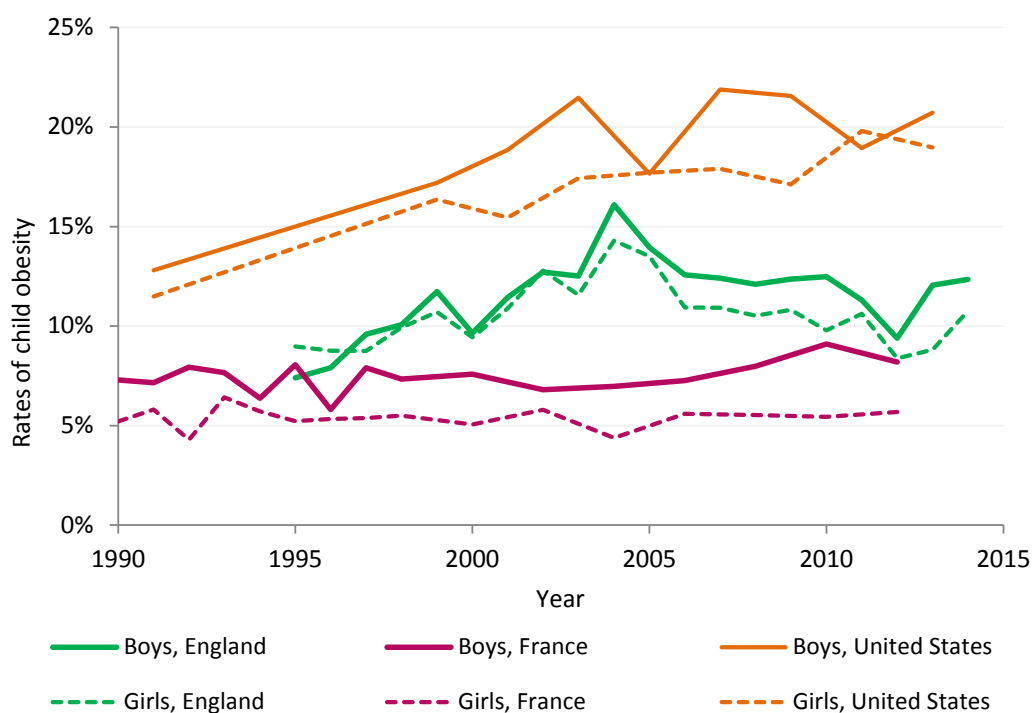
Note: Overweight and obesity rates designate overweight and obesity prevalence rates. Age- and gender-adjusted rates of overweight (including obesity), using the 2005 OECD standard population. Measured height and weight in England, Hungary, Korea, Mexico and the United States; self-reported in other countries.
Source: OECD analysis of health survey data.

Figure 3: Self-reported overweight (including obesity) in children aged 15 years



Note: * Data for 2009-10. Child overweight is defined with IOTF age- and gender- specific BMI cut-offs.
Source: Currie, C. et al. (2004); Inchley et al. (2016).

Figure 4: Obesity in children aged 3-17 years



Note: Age- and gender-adjusted rates of obesity, using the 2005 OECD standard population. Definition of obesity based on the WHO BMI-for-age cut-offs. Measured height and weight in England and the United States; self-reported in France.
Source: OECD analysis of national health survey data.

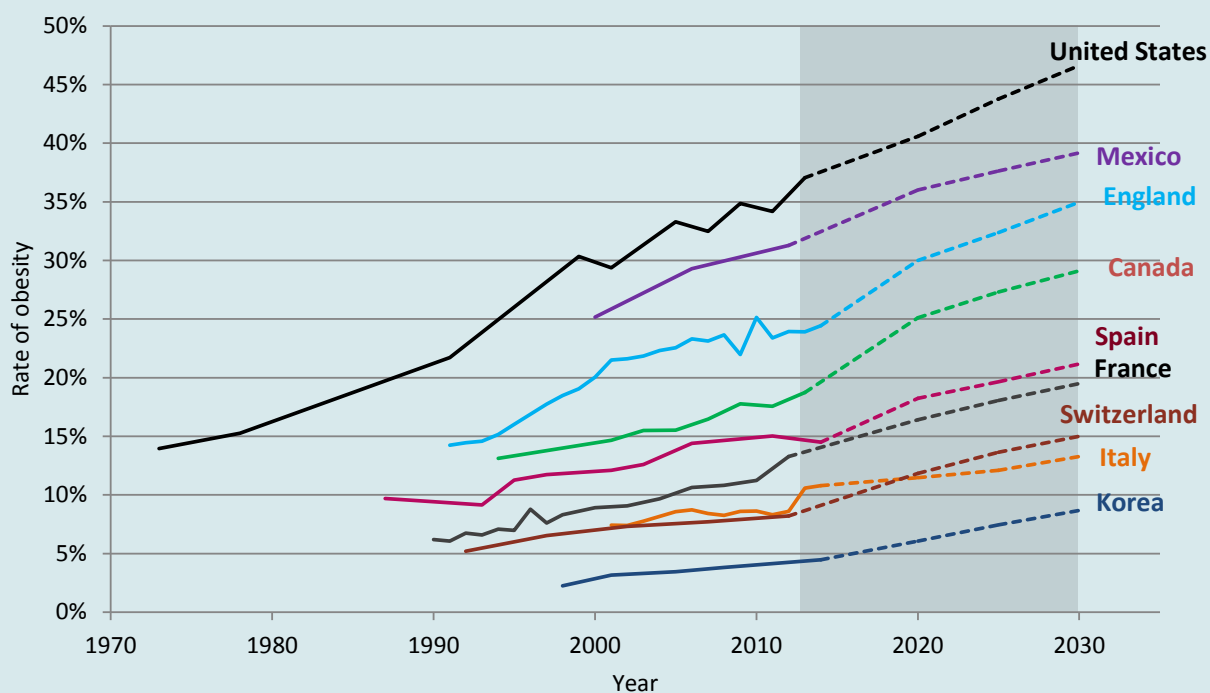




Obesity rates are expected to increase further

OECD projections show a steady increase in obesity rates until at least 2030 (Figure 5). Obesity levels are expected to be particularly high in the United States, Mexico and England, where 47%, 39% and 35% of the population respectively are projected to be obese in 2030. On the contrary, the increase is expected to be weaker in Italy and Korea, with obesity rates projected to be 13% and 9% in 2030, respectively. The level of obesity in France is projected to nearly match that of Spain, at 21% in 2030. Obesity rates are projected to increase at a faster pace in Korea and Switzerland where rates have been historically low.

Figure 5: Projected rates of obesity



Note: Obesity defined as Body Mass Index (BMI) $\geq 30\text{kg/m}^2$. OECD projections assume that BMI will continue to rise as a linear function of time.
Source: OECD analysis of national health survey data.

Inequalities in obesity and overweight are growing

In the majority of countries, women are more obese than men – however, in most OECD countries for which data are available, male obesity has been growing more rapidly.

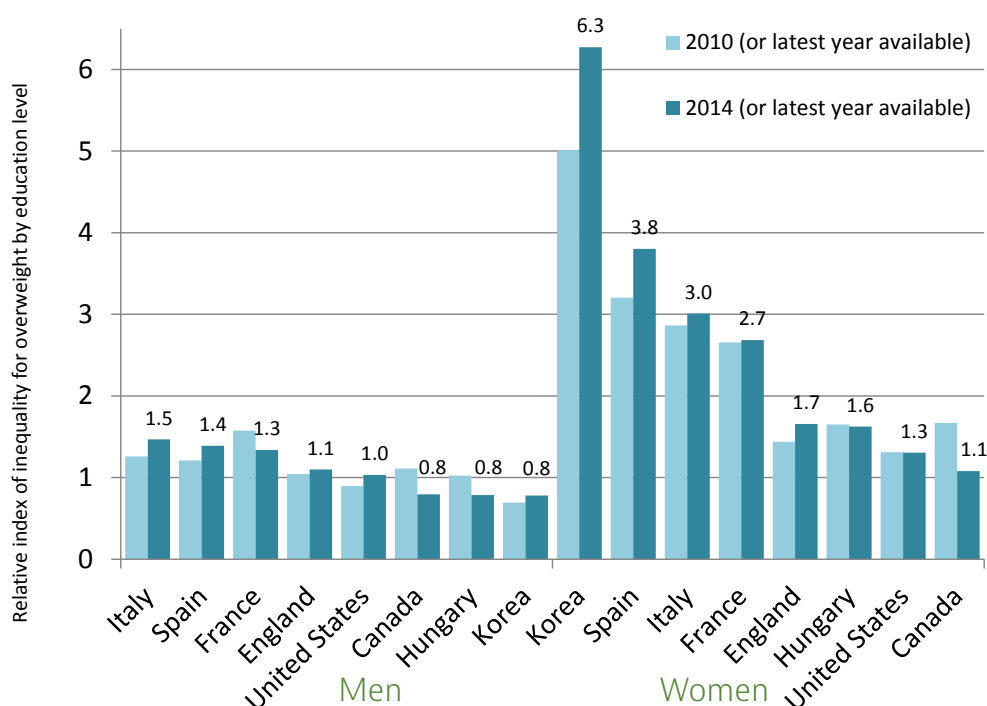
Less-educated women are two to three times more likely to be overweight than those with a higher level of education in about half of the eight countries for which data are available (Figure 6). Disparities are smaller for men, although they are growing.

Inequalities have grown in Italy, Spain, Korea, and England between 2010 and 2014, for both men and women. They have lessened for both genders in Canada, and for men only in France and Hungary. Obesity has been rising more rapidly in less-educated men and in average-educated women, in

most countries. However, in the United States, rates have been increasing most rapidly among high-educated people.

Education and socio-economic background affect obesity. Reciprocally, obesity damages labour market outcomes that, in turn, contribute to reinforcing existing social inequalities (Devaux and Sassi, 2015). Obese people have poorer job prospects compared to normal-weight people, they are less likely to be employed and have more difficulty re-entering the labour market (OECD/EU, 2016). Obese people are less productive at work due to more sick days and fewer worked hours, and they earn about 10% less than non-obese people. Addressing obesity and the associated negative labour market outcomes would help break the vicious circle of social and health inequalities.

Figure 6. Education-related inequality in overweight



Note: Overweight defined as $BMI \geq 25 \text{ kg/m}^2$. Education level is categorised into three groups (primary, secondary, tertiary education). On the Y-axis, the relative index of inequality measures the inequality of being overweight by education level. Source: OECD analysis of national health survey data.



Communication policies to tackle obesity are advancing

A number of new policy initiatives to tackle obesity have emerged in the OECD countries over the last few years. Countries have used a large spectrum of policies, including pricing and fiscal measures, school-based and worksite interventions, interventions in the primary care setting (e.g. prescribing physical activity), reformulation of products, changes in portion sizes, and transport policies (e.g. subsidies for active commuting instead of cars). Regarding fiscal measures in particular, taxation policies have been increasingly implemented in the past few years in a number of OECD countries (e.g. Belgium, Chile, Finland, France, Hungary, and Mexico) in order to increase

the price of potentially unhealthy products such as foods high in salt, sugar or fat, or sugary drinks. This edition of the *Obesity Update* focusses mainly on communication policies that promote healthy diets by improving health literacy and empowering consumers, or by regulating marketing of potentially unhealthy products. In recent years, most OECD countries have relied on the use of social media and new technologies, or have revised the arrangements for more traditional communication policies such as food labelling or regulation of marketing, in order to tackle the problem of obesity.

Food labelling helps people make healthier food choices

Food labelling in stores

Food labels can be implemented in different forms, for example through nutrient lists and profiles, informative logos, which can convey either positive or negative characteristics of the product, traffic light schemes, on a compulsory or voluntary basis.

Nutrient lists on packaged foods are compulsory by law in the vast majority of OECD countries. Both compulsory (e.g. Chile, Korea) and voluntary (e.g., Sweden, Denmark) front-of-pack (FOP) labels have been introduced (see Box 1).

Initial evidence of the impact on food choices and diet suggests that easy-to-understand interpretative labelling prompts a higher response rate from consumers than simply listing nutrient profiles (Cecchini and Warin, 2016). There is also evidence that FOP labelling can motivate food manufacturers to reformulate products with lower levels of nutrients that contribute to obesity (Kloss et al., 2015),

while evidence on the impact of recent FOP labelling on BMI and obesity would require a longer time period to be detected.

For example, evidence suggests that “traffic-light” systems have the potential to increase the number of people selecting a healthier option by about 18% and lead to a 4% decrease in calorie intake (Cecchini and Warin, 2016). According to a ten-week experiment on food labelling run across 60 different supermarkets in France, the five-colour NutriScore label was found to be the most effective nutritional labelling system among those studied and was selected to be implemented across the country as from April 2017. In December 2016, as part of its Healthy Eating Strategy, Canada launched a public consultation on a new compulsory food labelling logo that will warn about “high in sodium, sugars, and saturated fat” contents.



Box 1: Food Labelling

Compulsory **front-of-pack** (FOP) warning labels were introduced in **Chile** in June 2016, and preliminary evaluations show changes in consumers' food purchases. In **Korea**, a new rule will soon be implemented requiring manufacturers of snacks, processed food and beverages to list the total amount of monosaccharides and disaccharides in their products, along with the total amount of nutrients per package. In March 2017, six large food and beverage corporations announced plans to launch an easy-to-interpret FOP traffic light system in their European operations, which would be in compliance with the EU regulations. Full details of the plan are yet to emerge.

In addition to mandatory schemes, several voluntary initiatives have recently been adopted. In **England**, FOP "traffic-light" labelling has been introduced based on a colour scheme – green, amber and red – according to the nutrient content of a product in relation to the recommended daily intake.

Similarly, the NutriScore label, implemented in **France** as of April 2017, is a 5-colour scale that summarises the healthiness of a product.



The "Keyhole logo" in place in **Denmark**, **Norway** and **Sweden** since 2009 and more recently in **Iceland** and **Lithuania** helps consumers to choose products that are lower in sugar, fats and salt, and higher in whole grains.

per 30g cereal:					
16 SERVICES	ENERGY 460kJ 110kcal	FAT 0.7g	SATURATES 0.1g	SUGARS 5.1g	SALT 0.2g
	6%	LOW	LOW	HIGH	MED
Typical values per 100g: Energy 1530kJ/360kcal					



The "Health Star Rating" system implemented in **Australia** and **New Zealand** in 2014 is a front-of-pack labelling system that rates the overall nutritional profile of packaged food based on energy, saturated fat, sodium, total sugar, and fibre content, assigning a rate from ½ star to 5 stars. It provides a quick, easy, standard way to compare similar packaged foods. The more stars, the healthier the choice.

Food sold in restaurants

A few countries have implemented similar schemes for food purchased in restaurants, mostly at the subnational level. For instance, legislation in some countries requires displaying calorie counts on the restaurant menus (e.g., in chain restaurants in the United States as of May 2017, in several Australian states since 2016, and in Ontario, Canada, as of 2017). In the United States, several municipalities (e.g., New York City and Philadelphia) and states (e.g., California and Vermont) have already implemented legislation to show on the menu the nutrient content of dishes. In New York City, chain restaurants are also required to put a warning label for dishes that exceed 2 300 mg of sodium.

Food labelling in restaurants helps reduce calorie intake. For example, an Australian case study showed that consumers who were exposed to food labelling information selected meals with about 120 kcal lower energy content (Morley et al., 2013). In Washington State, United States, there was a drop of about 15 calories and 1.5 grams of fat per entrée sold after the introduction of labelling on the menus in six full-service restaurants (Pulos and Leng, 2010). On the other hand, the introduction of menu calorie labelling in New York City was shown to have little effect on the amount of calories purchased, although 28% of those who saw calorie labelling reported that this information affected their choices (Elbel et al., 2009).

Mass media campaigns increase awareness of healthier food consumption

A number of public health mass media campaigns to increase public awareness about healthier nutritional choices have been launched in OECD countries (see Box 2).

Mass media campaigns help to reach a broad-targeted audience and increase awareness about the importance of adequate fruit and vegetable consumption. For example, the "2+5 a day" mass campaign in Western

Australia contributed to the population-wide increase in the mean number of fruit and vegetable servings by about 0.2 over three years (Pollard et al., 2008). In Australia, the LiveLighter campaign was found to increase population-level awareness, compared to other obesity campaigns (Morley et al., 2016). But these campaigns should be sustained for a longer time period to change behaviours.



Box 2: Mass media campaigns

Nearly every country promotes fruit and vegetable consumption, with not only the well-known “5 a day” target (e.g. **Chile, Estonia, Germany, Mexico, New Zealand, Spain**) but also “6 a day” (**Denmark**), “2+5 a day” (meaning 2 serves of fruit and 5 serves of vegetables at least per day, **Western Australia**), or “Fruits & Veggies – More Matters” (**United States**) (World Cancer Research Fund International, 2017).

A variety of media channels are used. In **France**, since 2001, the “Eat Move” (Manger Bouger) campaign has been spreading messages through mass media, informational videos, home advertising and a dedicated website. In **Australia**, the LiveLighter campaign – implemented in Western Australia, Victoria and the Australian Capital Territory – has been encouraging healthy eating and physical activity with the help of free resources such as healthy recipes, meal and activity planners since 2012. In **Ireland**, the “Let’s Take on Childhood Obesity” campaign has been communicating practical solutions (e.g. meal planner, healthy eating tips) that parents can adopt in order to tackle everyday habits associated with excess weight in childhood since 2013. **Mexico** launched in 2013 a mass media campaign to reduce consumption of high calorie foods using TV, internet, radio, movie theatres, billboards and public transportation advertising. In **New York City**, messages to discourage consumption of sugary drinks have been broadcast both in English and Spanish. Health promotion campaigns to encourage parents to provide healthier food options to their children were implemented in 2016 in Newfoundland and Labrador, **Canada**, and in Los Angeles, **United States**.

Social media and new technologies are tools for public health promotion

In recent years, health promotion campaigns have increasingly been implemented through Facebook or Twitter, or dedicated mobile applications (see Box 3). According to a comprehensive review of available studies, the use of a dedicated mobile phone application has the potential to lead to a decrease in body weight (by about 1 kg), as well as a drop in BMI (about 0.43 kg/m²) (Mateo et al., 2015).

It is still too early to expect a rigorous evaluation of the effectiveness of these campaigns, although recent evidence indicates that the Change4Life campaign in the United Kingdom successfully reached its target audience, with 58% of adults switching to lower fat dairy products compared to 26% in the comparison group.

Box 3: Social media and new technologies

In the **Netherlands**, the Nutrition Centre has been in charge of several online public health campaigns encouraging healthier food choices, for example by providing recipes and tips for healthier eating through a dedicated website, mobile apps and online tools. These help people change their behaviour step-by-step, for instance through fit-for-purpose advice and short movies with suggestions. In 2013, the **Chilean** Government launched the “Choose to Live Healthily” campaign (Elige Vivir Sano) using a social marketing component (e.g. providing a web-based tool to calculate calorie intake and an agenda for health events). In **Estonia**, the National Institute for Health Development implemented an online campaign to discourage high salt and high sugar consumption, providing a web-based tool to help households calculate the amount of salt and sugar in their diet, and software to check nutritional value of products by name or brand (World Cancer Research Fund International, 2017). In **Switzerland**, two Swiss radio channels launched the physically active week called “SRF bewegt” (“SRF moves”) in June 2015. People enrolled through a mobile app and a dedicated website. The number of metres walked and run was tracked over a week for each canton (region), creating a motivating competition between them. This initiative got high public attention, with more than 1 million km walked by more than 88 000 persons over a week. In **England**, the family-oriented Change4Life campaign ran the targeted “Smart Swaps” campaign in 2014 to help reduce sugar, saturated fat and salt consumption by providing healthy tips and recipes through a dedicated website and mobile apps. They also promoted the “Be Food Smart” app that provides sugar, saturated fat and salt content in packaged products by scanning the barcode. The recent “Be He@lthy, Be Mobile” joint initiative between the International Telecommunication Union and the World Health Organization is working on scaling up mobile technology to deliver public health messages, including about nutrition for diabetic people, notably during Ramadan fasting. This initiative applies to several priority countries (two of which are OECD countries – Norway and the United Kingdom).

Tightening regulation of advertising through TV, radio and other means helps to reduce children exposure

At least seven OECD countries have tightened regulation of advertising since 2011. This often applies to the marketing of potentially unhealthy foods and sweetened beverages directed to **children and young adults**. Bans on advertising of foods and beverages on TV and radio during hours when children are the main audience have been put in place in Chile, Iceland, Ireland, and Mexico. Other bans apply in schools (e.g. Chile, Poland, Spain and Turkey), in public transport (e.g. Australia) and other public places (e.g. Norway) (see Box 4). In May 2016, the European Commission adopted a new legislative proposal amending the Audiovisual Media Services Directive which aims at achieving a balance between competitiveness and consumer protection. In particular, this revised directive proposes to increase protection for minors on video-on-demand

and video-sharing platforms, and at the same time, to put new rules on commercial communications (introducing more flexibility for broadcasters while encouraging self-regulation). The text is currently under discussion at the European Parliament and the Council.

Assessments of the regulation of nutrition-related advertising among children suggest positive effects on calorie intake, food quality and, to some extent, on children’s exposure. However, voluntary pledges, rather than regulation by law, may not be as effective in reducing children’s exposure to such advertisements. This has been attributed to the lack of participation by many large food companies and to the weak enforceability and penalties for non-compliance (Galbraith Emami and Lobstein, 2013).



Advertising

Box 4: Advertising regulation

In **Norway**, advertising regulation policy took a step further in 2013, as a united group of food manufacturers and suppliers agreed on a new self-regulation scheme to voluntarily ban marketing of unhealthy foods and beverages to children younger than 13. Communication channels included are, for instance, movies in theatres starting before 6.30pm, competitions and interactive games for children. In **Denmark**, a self-regulation code has been in place since 2008 through “The Forum of Responsible Food Marketing Communication”. The code targets marketing to children on TV, printed media and the internet of products with a high content of sugar, fats and salt. In **Chile**, advertising food that exceeds the sodium, saturated fat, sugar and calories thresholds established by the Ministry of Health, directed to children under the age of 14, is restricted in any kind of media. In Canberra, **Australia**, advertising junk food, alcohol and gambling has been banned on municipal buses since 2015. In **Latvia**, the law has prohibited, since June 2016, the sale of energy drinks to children below age 18. It also prohibits advertising of these drinks before, during and after TV programmes targeting children less than 18 years of age, their advertising in educational establishments, as well as their association with sports facilities. Similar advertising restrictions have existed in neighbouring **Lithuania** since 2014. From 2015, the industry in **Slovenia** has voluntarily agreed to restrict soft drink advertising in school settings as well as in magazines and cinemas for children under the age of 12. In **Poland**, a law was implemented in 2015 to regulate promotion and advertising of foods sold at pre-schools, primary and secondary schools. In **Spain**, since 2015, educational and health authorities can allow any advertising and promotional campaigns in schools, but only when they believe that the activity would be of benefit to the interests of the minors. In **Brazil**, a new decree of 2015 regulates the commercial promotion of some products for infants that can interfere with breastfeeding.

Most OECD countries are simultaneously using complementary communication tools to promote healthy lifestyles that can create synergies for better results. For instance, Canada has put in place the “Healthy Eating Strategy” which aims at considering new FOP nutrition labelling and restricting the commercial marketing of potentially unhealthy foods and beverages for children. Denmark has implemented several national campaigns in order to increase awareness about the Keyhole food label and thereby to promote healthier eating habits. The campaigns have been implemented as a joint venture with the industry,

retailers and different partnership organisations. Ireland has launched an obesity policy and action plan “A Healthy Weight for Ireland 2016-2025”, which includes the preparation of legislation on calorie labelling and the publication of a voluntary Code of practice on food advertising and promotion and marketing in the coming months. Turkey has implemented since 2013 health promotion campaigns “Move for Health” and “Reducing Portion Sizes”. Complementary to these, Turkey has launched the “Promoting Physical Activity Project” with 275 000 bicycles distributed to schools, universities, municipalities and NGOs.



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For more information, please visit:

www.oecd.org/health/obesity-update.htm

www.oecd.org/health/economics-of-prevention.htm

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