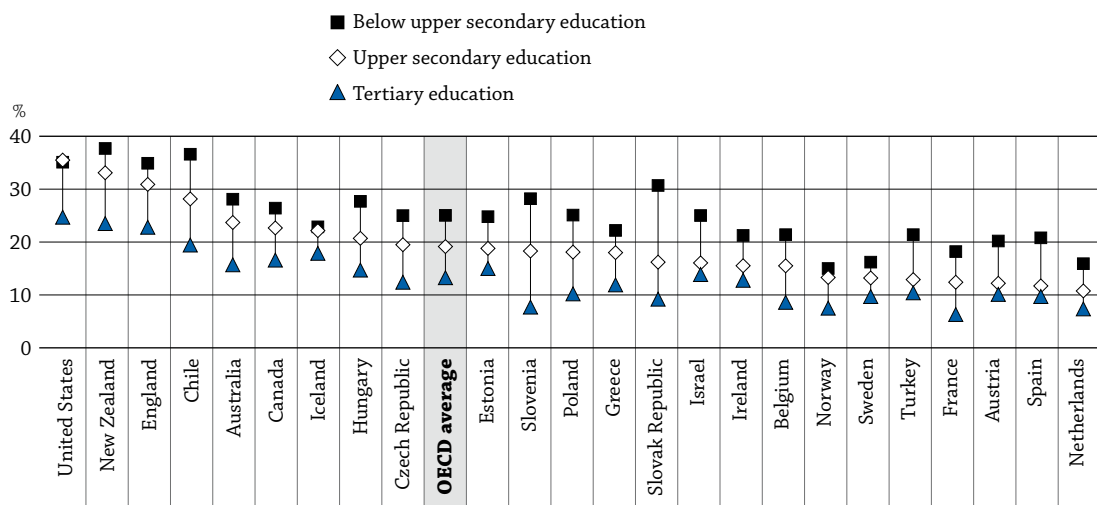


WHAT ARE THE SOCIAL OUTCOMES OF EDUCATION?

- On average across 24 OECD countries, adults with a tertiary education are half as likely to be obese compared to those with only a below upper secondary education.
- Adults in 23 OECD countries with a tertiary education are 16 percentage points less likely to smoke, on average, than those with below upper secondary education only.

Chart A8.1. Proportion of obese adults, by level of educational attainment (2011)




Notes: Obese adults are defined as those whose Body Mass Index (BMI) is greater or equal to 30 (see Annex 3 for survey questions used).

Data refers to 2011, except for Australia (2010), Austria (2006), Belgium (2008), Chile (2009-10), the Czech Republic (2008), England (2010), Estonia (2006), France (2008), Greece (2009), Hungary (2009), Iceland (2007), Ireland (2007), Israel (2010), the Netherlands (2008), Norway (2008), Poland (2009), the Slovak Republic (2009), Slovenia (2007), Spain (2009) and Turkey (2008).

Countries are ranked in descending order of the proportion of adults aged 25-64 reporting levels of BMI greater or equal to 30, among adults who have attained upper secondary education.

Source: OECD. Table A8.1. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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■ Context

Health remains an important policy concern in OECD countries, in spite of the rapid increases in life expectancy over the last decades. There have been significant changes in the nature of health problems, with a sharp rise in chronic debilitating conditions, such as diabetes and severe depression, and the deterioration of health-related behaviours in the areas of diet, exercise and drinking. In addition, there are concerns related to inequalities, as certain demographic and socio-economic groups face significantly worse health conditions (WHO, 2008). Overall, among OECD countries, expenditure on health increased to 9.5% of GDP in 2010, up from 3.9% when the OECD was founded in 1961, and it is likely to increase further as the populations in OECD countries age (OECD, 2011).

Given that childhood through adolescence is an important time for developing healthy behaviours and lifestyles (OECD, 2010), education can have an impact on the incidence of obesity and smoking. This year's *Education at a Glance* looks at two health indicators, obesity and smoking, and how they are associated with educational attainment.

■ Other findings

- More-educated adults are less likely to be obese and smoke daily. **The reduction in obesity rates by educational attainment is much greater among women** and in countries that have a high average level of obesity. **The reduction in smoking rates by educational attainment is much greater among men than women.** The reduction is also greater in Central European and predominantly English-speaking countries than in other OECD countries.
- **The relationship between educational attainment and health indicators (obesity and daily smoking) remains strong even after taking into account differences in individuals' gender, age and income.**

Analysis

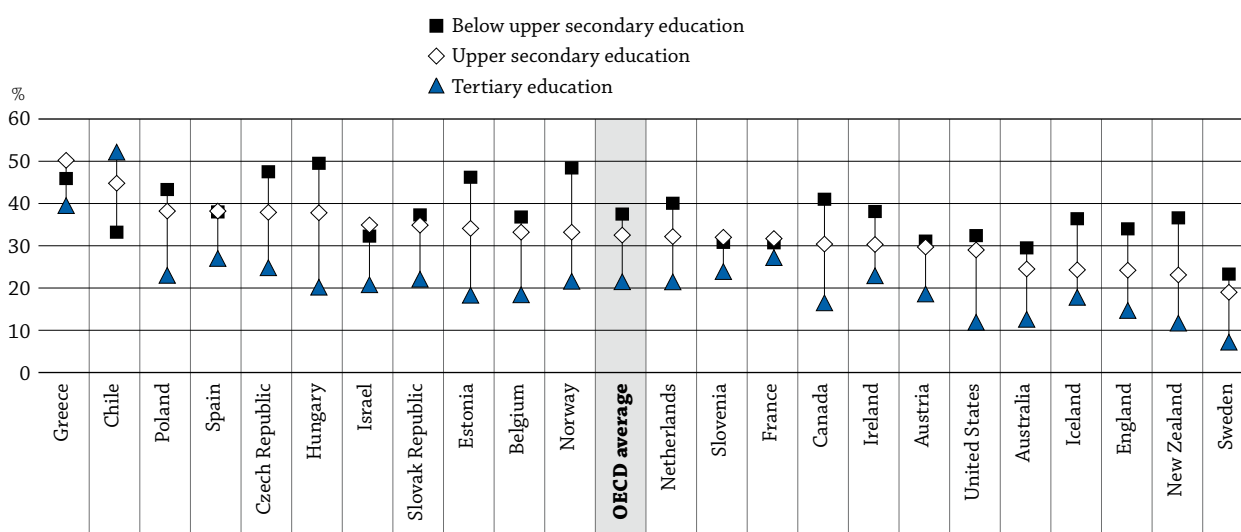
Obesity

Obesity has reached epidemic proportions, according to the World Health Organization (WHO, 2008). It is associated with serious chronic diseases, disability, reduced quality of life, and shortened life expectancy. It also affects mental health, social life, and is associated with negative effects on educational outcomes (OECD, 2010). While the rise in obesity has affected all population groups, evidence suggests that obesity tends to be more common among individuals, especially women, in disadvantaged socio-economic groups.

On average across the 24 OECD countries with available data, approximately 19% of adults are obese (Table A8.1). The incidence of obesity is particularly high among those with below upper secondary education (25%) and relatively low among those with tertiary education (13%). The incremental difference in health outcomes associated with more education (in this case, 12 percentage points) is commonly called the *education gradient*. The education gradient for obesity is particularly steep among women: a 16 percentage-point difference, compared to a 7 percentage-point difference among men.

Some countries with a high level of obesity, namely, Chile, New Zealand and the United States, show a particularly steep education gradient of 14 percentage points, on average. The education gradient is 8 percentage points, on average, across those countries with a low level of obesity, namely, the Netherlands, Norway and Sweden (Table A8.1).

Chart A8.2. Proportion of adults who smoke, by level of educational attainment (2011)



Notes: Adults who smoke are defined as those who currently smoke or otherwise use tobacco products (see Annex 3 for survey questions used).

Data refers to 2011, except for Australia (2010), Austria (2006), Belgium (2008), Chile (2009-10), the Czech Republic (2008), England (2010), Estonia (2006), France (2008), Greece (2009), Hungary (2009), Iceland (2007), Ireland (2007), Israel (2010), the Netherlands (2008), Norway (2008), Poland (2009), the Slovak Republic (2009), Slovenia (2007) and Spain (2009).

Countries are ranked in descending order of the proportion of adults aged 25-64 reporting using tobacco regularly, among adults who have attained upper secondary education.

Source: OECD. Table A8.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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Is the relationship between education and obesity largely driven by age or gender? This may occur if, for example, the younger cohorts (or women) are less likely to be obese and are also better educated compared to the older cohorts (or men). Table A8.3 provides regression-based estimates that take into account these differences. They suggest that the relationship between educational attainment and obesity remains strong even after accounting for age and gender.

Smoking

On average, smoking rates have decreased by about one-fifth over the past ten years, with a higher decline amongst men than women (OECD, 2011). However, smoking is still responsible for about 10% of adult deaths worldwide and is the leading cause of circulatory disease and cancer (OECD, 2011). In all OECD countries except Sweden, more men than women smoke. This gender gap is particularly large in China, Indonesia, Japan, Korea, the Russian Federation and Turkey. Those from socio-economically disadvantaged backgrounds report a higher incidence and greater intensity of smoking.

Across the 23 OECD countries covered in this indicator, 30% of adults smoke daily (Table A8.2). The incidence of daily smoking is particularly high among those with below upper secondary education (37%) and low among those with tertiary education (21%). This education gradient is particularly high among men, with a 20 percentage-point difference in the incidence of daily smoking. The education gradient among women is only 13 percentage points (Table A8.2).

Certain Central European countries, namely the Czech Republic, Estonia, Hungary and Poland, the predominantly English-speaking countries; i.e. Australia, Canada, New Zealand, and the United States, as well as Norway, show particularly high education gradients. In all these countries, adults with at least a tertiary education are half as likely to be currently smoking compared to those with only a below upper secondary education (Table A8.2).

The relationship between education and daily smoking is not generally driven by individual differences in gender and age. Regression-based estimates, which take into account such differences, suggest that the relationship between educational attainment and daily smoking generally remains strong even after accounting for age and gender (Table A8.4).

Income effects of education

Education may have a direct impact on health behaviours and outcomes in that through education, individuals can learn to choose healthier lifestyles and avoid behaviours that are detrimental to health. Education may also indirectly affect health since those with higher levels of education are more likely to earn more and be able to afford better health care and lifestyles. To consider these indirect effects, Tables A8.3 and A8.4 present regression-based estimates that take into account the income effects. The results show that the impact of education remains strong even after controlling for income effects. This suggests that education may have an impact on health by improving skills and habits, although other factors related to the choice of education or the impact of certain qualifications on life choices may also be at play.

Definitions

This section describes the educational attainment and health related variables. See Annex 3 (www.oecd.org/edu/eag.htm) for detailed descriptions of the variables, including the actual questions used in each survey.

Educational attainment variables in each data source are converted to three categories of educational attainment (below upper secondary education, upper secondary education, and tertiary education) based on the ISCED-97 classification system. Levels of education: below upper secondary corresponds to ISCED levels 0,1,2 and 3C short programmes; upper secondary or post-secondary non-tertiary correspond to ISCED levels 3A, 3B, 3C long programmes, and 4; and tertiary corresponds to ISCED levels 5A, 5B and 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

Obesity and overweight are defined as excessive weight presenting health risks because of the high proportion of body fat. The most frequently used measure is based on the body mass index (BMI), which is a single number that evaluates an individual's weight in relation to height (weight/height², with weight in kilograms and height in metres). Based on the WHO classification, adults with a BMI from 25 to 30 are defined as overweight, and those with a BMI of 30 or over as obese. This classification may not be suitable for all ethnic groups, many of which have equivalent levels of risk at lower or higher BMI. The thresholds for adults are not suitable to measure overweight and obesity among children (OECD, 2011).

Smoking daily means a person currently smokes or otherwise uses tobacco on a daily basis. International comparability is limited due to the lack of standardisation in measuring smoking habits in health interview surveys across OECD countries. Some Nordic countries have significant numbers of users of *snus* (Low-nitrosamine smokeless tobacco). The literature estimates that *snus* reduces health risks to users by 90% compared to cigarette smokers. Due to partial substitutability (that some cigarette users quit and use *snus* instead), the overall public health effect of *snus* is positive (SCENIHR, 2008). Users of *snus* in Norway and Sweden who are not also smokers are therefore not included in this indicator.

Methodology

Given the potentially significant cross-country differences in the standards in measuring obesity and smoking, these indicators should be interpreted with caution (see Annex 3 for details). The main focus should be on *within-country* differences in health behaviours and outcomes across levels of educational attainment, rather than *cross-country* comparisons.

The indicators presented here are based on developmental work jointly conducted by the INES Network on Labour Market, Economic and Social Outcomes of Learning (LSO) and the OECD Centre for Educational Research and Innovation (CERI). The conceptual framework for the indicators was developed by CERI's Social Outcomes of Learning project (OECD, 2007; OECD, 2010), and the empirical strategies were developed by the INES LSO Network. See Annex 3 at www.oecd.org/edu/eag.htm for details on the calculation of the indicators.

This year's edition of *Education at a Glance* presents new indicators calculated mainly using microdata from the European Health Interview Survey (Eurostat), which provides a unified and relatively comparable source of data across European countries. To calculate indicators from outside of European countries, various surveys were used, namely: the Australian Institute of Health and Welfare's National Drug Strategy Household Survey, 2010, of the Australian Data Archive; the Canadian Community Health Survey, 2010; Chile's National Health Survey (Encuesta Nacional de Salud, ENS), 2009-10; Health Survey for England, 2010; the Questioner Survey, Health and Wellbeing of Icelanders in 2007; the Irish Survey of Lifestyle and Attitudes to Nutrition, 2007; Israel's Social Survey (Year 2010); the Dutch Health Interview Survey (part of Permanent Survey on Living Conditions), 2008; New Zealand Health Survey, 2011/12; the Norwegian Health Survey, 2008; Statistics Sweden's, Living Conditions Surveys (2011); and the United States' National Health Interview Survey, 2011. Note that data from all the countries are based on self-reported survey data, which may not necessarily capture true prevalence of obesity and smoking.

Surveys were selected on the basis of the following factors:

Age restriction: Data on adults aged 25 to 64 were used.

Comparability of educational attainment variables: The general principle is to use microdata for which the distribution of educational attainment was within 10 percentage points of figures published for comparable years in *Education at a Glance*.

Comparability of health variables: Surveys are selected on the basis of the comparability of variables that allow identification of obesity and daily smoking.

Country coverage: An important objective is to select surveys that represent a large number of OECD countries. This was the reason for the selection of the European Health Interview Survey, which covers a large number of European Union member countries and other countries for the adult population.

Sample size: Surveys with a minimum sample of approximately 1 000 observations per country were used to obtain reliable estimates. Most surveys in this area have relatively large sample sizes.

To calculate incremental percentage-point differences, country-specific regression models were estimated to predict each dichotomous outcome variable (e.g. high versus low level of obesity) from individuals' educational attainment level, with and without control variables for age, gender and family income. In preliminary analyses, both probit and ordinary least squares (OLS) regressions were used, and were found to produce

similar estimates of incremental differences. Because OLS regression provides more readily interpretable coefficients, OLS was used for the final analysis to generate incremental differences (Tables A8.3 and A8.4).

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.

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Indicator A8 Tables





Table A8.1	Proportion of obese adults, by level of educational attainment and gender (2011) <i>StatLink</i>  http://dx.doi.org/10.1787/888932849274
Table A8.2	Proportion of adults who smoke, by level of educational attainment and gender (2011) <i>StatLink</i>  http://dx.doi.org/10.1787/888932849293
Table A8.3	Percentage-point differences in the “likelihood of being obese” associated with an increase in the level of educational attainment (2011) <i>StatLink</i>  http://dx.doi.org/10.1787/888932849312
Table A8.4	Percentage-point differences in the “likelihood of smoking” associated with an increase in the level of educational attainment (2011) <i>StatLink</i>  http://dx.doi.org/10.1787/888932849331

Table A8.1. Proportion of obese adults, by level of educational attainment and gender (2011)

Percentage of 25-64 year-olds

	Year	Men			Women			Men + Women				
		Below upper secondary education	Upper secondary education	Tertiary education	Below upper secondary education	Upper secondary education	Tertiary education	Below upper secondary education	Upper secondary education	Tertiary education	All levels of education	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
OECD	Australia	2010	29.2	25.5	16.7	27.4	21.3	14.8	28.1	23.7	15.7	21.6
	Austria	2006	13.8	13.4	12.3	23.5	10.8	7.4	20.2	12.2	10.1	13.1
	Belgium	2008	20.3	16.2	10.0	22.5	14.8	7.2	21.4	15.5	8.6	14.5
	Canada	2010	25.1	24.0	19.5	28.0	20.9	14.1	26.4	22.7	16.6	19.7
	Chile	2009-10	21.4	24.3	17.2	49.9	32.1	21.7	36.6	28.2	19.4	28.7
	Czech Republic	2008	21.4	22.3	10.8	26.9	16.5	14.3	25.0	19.5	12.4	19.0
	Denmark		m	m	m	m	m	m	m	m	m	m
	England	2010	33.6	32.4	24.8	36.1	29.5	20.5	34.9	30.9	22.8	28.3
	Estonia	2006	19.1	17.7	21.2	32.9	19.8	11.5	24.8	18.8	15.0	19.3
	Finland		m	m	m	m	m	m	m	m	m	m
	France	2008	16.0	11.9	6.8	20.0	13.0	5.9	18.2	12.4	6.3	12.2
	Germany		m	m	m	m	m	m	m	m	m	m
	Greece	2009	20.3	21.2	14.2	23.8	15.0	9.1	22.2	18.0	11.9	17.7
	Hungary	2009	23.7	23.0	16.2	30.3	18.0	13.7	27.7	20.7	14.7	20.5
	Iceland	2007	20.5	20.9	19.0	25.0	24.0	17.0	22.9	22.2	17.9	20.9
	Ireland	2007	22.6	18.4	13.8	20.0	13.7	12.1	21.2	15.5	12.8	16.7
	Israel	2010	24.2	15.2	13.7	26.1	16.9	14.0	25.0	16.1	13.9	16.4
	Italy		m	m	m	m	m	m	m	m	m	m
	Japan		m	m	m	m	m	m	m	m	m	m
	Korea		m	m	m	m	m	m	m	m	m	m
	Luxembourg		m	m	m	m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m	m	m	m
	Netherlands	2008	14.6	10.0	7.1	17.1	11.6	7.6	15.9	10.8	7.4	11.6
	New Zealand	2011	36.1	32.9	24.4	39.2	33.5	22.7	37.7	33.1	23.5	30.0
	Norway	2008	18.4	14.4	8.0	11.5	11.9	7.1	15.0	13.3	7.5	11.6
	Poland	2009	19.3	19.9	15.4	29.8	16.4	6.8	25.1	18.1	10.2	17.2
	Portugal		m	m	m	m	m	m	m	m	m	m
	Slovak Republic	2009	16.5	17.0	10.5	39.1	15.4	8.1	30.7	16.2	9.2	15.3
	Slovenia	2007	22.3	21.3	7.8	33.3	14.2	7.7	28.2	18.3	7.7	21.7
	Spain	2009	22.0	14.1	13.8	19.4	9.3	5.7	20.8	11.7	9.7	15.3
	Sweden	2011	17.0	12.8	10.9	15.0	13.5	8.5	16.2	13.2	9.7	12.1
	Switzerland		m	m	m	m	m	m	m	m	m	m
Turkey	2008	15.3	15.0	12.2	27.4	9.5	7.2	21.4	12.9	10.4	18.9	
United States	2011	33.4	35.9	26.1	37.1	35.2	23.4	35.1	35.5	24.7	30.6	
OECD average		21.9	20.0	14.7	27.6	18.2	12.0	25.0	19.1	13.2	18.9	
EU21 average		20.2	18.1	13.0	26.0	15.4	9.7	23.5	16.8	11.2	17.0	
Other G20	Argentina		m	m	m	m	m	m	m	m	m	
	Brazil		m	m	m	m	m	m	m	m	m	
	China		m	m	m	m	m	m	m	m	m	
	India		m	m	m	m	m	m	m	m	m	
	Indonesia		m	m	m	m	m	m	m	m	m	
	Russian Federation		m	m	m	m	m	m	m	m	m	
	Saudi Arabia		m	m	m	m	m	m	m	m	m	
	South Africa		m	m	m	m	m	m	m	m	m	
	G20 average		m	m	m	m	m	m	m	m	m	

Note: Obese adults are defined as those whose Body Mass Index (BMI) is greater or equal to 30 (see Annex 3 for survey questions used).

Sources: European Health Interview Survey (EHIS) for Austria, Belgium, the Czech Republic, Estonia, France, Greece, Hungary, Poland, the Slovak Republic, Slovenia, Spain and Turkey. National Drug Strategy Household Survey, for Australia. Canadian Community Health Survey for Canada. National Health Survey for Chile. Health Survey for England. Questionersurvey, Health and Wellbeing of Icelanders for Iceland. Survey of Lifestyle and Attitudes to Nutrition for Ireland. Social Survey for Israel. Health Interview Survey for the Netherlands. New Zealand Health Survey for New Zealand. Norwegian Health Survey for Norway. Living Conditions Surveys for Sweden. National Health Interview Survey for the United States. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


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Table A8.2. Proportion of adults who smoke, by level of educational attainment and gender (2011)

Percentage of 25-64 year-olds

	Year	Men			Women			Men + Women				
		Below upper secondary education	Upper secondary education	Tertiary education	Below upper secondary education	Upper secondary education	Tertiary education	Below upper secondary education	Upper secondary education	Tertiary education	All education	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
OECD	Australia	2010	31.9	26.9	13.8	27.9	21.0	11.4	29.5	24.5	12.6	21.0
	Austria	2006	39.9	34.3	20.6	26.6	24.7	16.1	31.1	29.7	18.6	27.0
	Belgium	2008	41.7	39.3	18.5	32.2	27.1	18.2	36.8	33.2	18.4	28.6
	Canada	2010	48.5	33.1	19.0	32.2	27.1	14.6	41.0	30.4	16.5	23.8
	Chile	2009-10	36.7	47.9	56.8	30.1	41.6	47.4	33.2	44.8	52.1	43.0
	Czech Republic	2008	61.8	43.1	32.1	39.3	32.5	16.5	47.5	37.9	24.8	36.9
	Denmark		m	m	m	m	m	m	m	m	m	m
	England	2010	37.2	27.1	18.3	31.2	21.9	10.7	34.0	24.2	14.7	22.1
	Estonia	2006	58.3	48.2	30.8	29.9	22.1	11.4	46.2	34.1	18.3	34.1
	Finland		m	m	m	m	m	m	m	m	m	m
	France	2008	32.5	35.2	31.0	29.2	28.1	24.4	30.7	31.7	27.2	30.1
	Germany		m	m	m	m	m	m	m	m	m	m
	Greece	2009	58.3	56.7	40.7	34.9	44.0	37.9	45.9	50.2	39.5	45.8
	Hungary	2009	59.0	41.0	22.7	43.3	33.9	18.5	49.5	37.8	20.2	35.7
	Iceland	2007	37.5	22.9	18.2	35.5	26.3	17.5	36.4	24.3	17.8	25.5
	Ireland	2007	36.2	34.3	24.4	39.5	27.3	21.9	38.1	30.3	22.9	30.5
	Israel	2010	42.9	41.2	27.2	18.7	28.5	15.4	32.3	34.9	20.8	27.3
	Italy		m	m	m	m	m	m	m	m	m	m
	Japan		m	m	m	m	m	m	m	m	m	m
	Korea		m	m	m	m	m	m	m	m	m	m
	Luxembourg		m	m	m	m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m	m	m	m
	Netherlands	2008	44.0	35.7	24.7	36.6	28.5	17.8	40.1	32.2	21.5	31.8
	New Zealand	2011	37.2	24.1	12.8	36.2	21.8	10.9	36.6	23.1	11.7	21.2
	Norway	2008	49.7	35.7	23.8	47.1	30.1	19.7	48.4	33.2	21.6	32.3
	Poland	2009	56.5	45.0	26.1	32.5	31.7	21.0	43.3	38.2	23.0	35.5
	Portugal		m	m	m	m	m	m	m	m	m	m
	Slovak Republic	2009	56.2	44.1	26.8	26.2	25.2	17.8	37.3	34.9	22.1	32.2
	Slovenia	2007	37.8	34.0	18.2	24.8	29.5	28.0	30.8	32.0	23.9	30.5
	Spain	2009	46.7	41.9	27.1	28.9	34.3	27.0	38.0	38.2	27.0	34.8
	Sweden	2011	22.0	18.3	6.8	25.2	19.7	7.6	23.3	19.0	7.2	14.7
	Switzerland		m	m	m	m	m	m	m	m	m	m
Turkey		m	m	m	m	m	m	m	m	m	m	
United States	2011	36.5	32.3	12.7	27.8	25.6	11.3	32.4	29.0	11.9	21.7	
OECD average		43.9	36.6	24.0	32.0	28.4	19.3	37.5	32.5	21.5	29.8	
EU21 average		45.9	38.5	24.6	32.0	28.7	19.7	38.2	33.6	21.9	31.4	
Other G20	Argentina		m	m	m	m	m	m	m	m	m	m
	Brazil		m	m	m	m	m	m	m	m	m	m
	China		m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m
	Russian Federation		m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m

Note: Adults who smoke are defined as those who currently smoke or otherwise use tobacco products (see Annex 3 for survey questions used).

Sources: European Health Interview Survey (EHIS) for Austria, Belgium, the Czech Republic, Estonia, France, Greece, Hungary, Poland, the Slovak Republic, Slovenia and Spain. National Drug Strategy Household Survey, for Australia. Canadian Community Health Survey for Canada. National Health Survey for Chile. Health Survey for England. Questionersurvey, Health and Wellbeing of Icelanders for Iceland. Survey of Lifestyle and Attitudes to Nutrition for Ireland. Social Survey for Israel. Health Interview Survey for the Netherlands. New Zealand Health Survey for New Zealand. Norwegian Health Survey for Norway. Living Conditions Surveys for Sweden. National Health Interview Survey for the United States. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


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Table A8.3. Percentage-point differences in the “likelihood of being obese” associated with an increase in the level of educational attainment (2011)
Percentage of 25-64 year-olds, by level of educational attainment

	Year	Proportion of obese adults among those who have attained upper secondary education	Difference in outcome from below upper secondary to upper secondary			Difference in outcome from upper secondary to tertiary			
			No adjustments	Adjustments age, gender	Adjustments age, gender, income	No adjustments	Adjustments age, gender	Adjustments age, gender, income	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Australia	2010	23.7	-4.4	-3.1	-2.9	-8.0	-7.5	-7.4
	Austria	2006	12.2	-8.0	-6.6	-6.4	-2.1	-2.2	-1.6
	Belgium	2008	15.5	-5.9	-4.0	-3.9	-6.9	-6.7	-6.5
	Canada	2010	22.7	-3.7	-3.4	-3.3	-6.1	-5.3	-5.4
	Chile	2009-10	28.2	8.5	5.0	5.5	-8.7	-7.1	-6.5
	Czech Republic	2008	19.5	-5.5	-3.5	-2.3	-7.1	-5.4	-4.4
	Denmark		m	m	m	m	m	m	m
	England	2010	30.9	-4.0	-2.1	-1.1	-8.1	-7.7	-6.3
	Estonia	2006	18.8	-6.0	-5.1	-5.6	-3.8	-1.8	-1.7
	Finland		m	m	m	m	m	m	m
	France	2008	12.4	-5.8	-4.7	-4.7	-6.1	-5.6	-5.6
	Germany		m	m	m	m	m	m	m
	Greece	2009	18.0	-4.2	0.0	-0.1	-6.1	-6.9	-6.9
	Hungary	2009	20.7	-7.0	-5.7	-6.0	-6.0	-4.2	-3.2
	Iceland	2007	22.2	-0.7	-0.2	-0.1	-4.3	-4.2	-2.9
	Ireland	2007	15.5	-5.7	-4.6	-4.4	-2.8	-2.2	-2.2
	Israel	2010	16.1	-9.0	-5.9	-6.0	-2.2	-4.0	-3.9
	Italy		m	m	m	m	m	m	m
	Japan		m	m	m	m	m	m	m
	Korea		m	m	m	m	m	m	m
	Luxembourg		m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m
	Netherlands	2008	10.8	m	m	m	m	m	m
	New Zealand	2011	33.1	m	m	m	m	m	m
	Norway	2008	13.3	-1.7	-1.7	-1.2	-5.8	-5.6	-5.2
	Poland	2009	18.1	-7.0	-3.7	-4.1	-7.9	-4.8	-5.3
	Portugal		m	m	m	m	m	m	m
	Slovak Republic	2009	16.2	-14.5	-10.1	-9.7	-7.0	-5.1	-5.1
Slovenia	2007	18.3	-9.9	-7.1	-6.2	-10.6	-9.2	-6.9	
Spain	2009	11.7	-9.0	-7.7	-7.0	-2.0	-1.5	-0.4	
Sweden	2011	13.2	m	m	m	m	m	m	
Switzerland		m	m	m	m	m	m	m	
Turkey	2008	12.9	-8.5	-4.1	-4.8	-2.4	-2.9	-3.6	
United States	2011	35.5	0.4	0.4	2.2	-10.8	-10.7	-8.3	
OECD average		19.1	-5.3	-3.7	-3.4	-5.9	-5.3	-4.7	
EU21 average		16.8	-7.1	-5.0	-4.7	-5.9	-4.9	-4.3	
Other G20	Argentina		m	m	m	m	m	m	
	Brazil		m	m	m	m	m	m	
	China		m	m	m	m	m	m	
	India		m	m	m	m	m	m	
	Indonesia		m	m	m	m	m	m	
	Russian Federation		m	m	m	m	m	m	
	Saudi Arabia		m	m	m	m	m	m	
	South Africa		m	m	m	m	m	m	
	G20 average		m	m	m	m	m	m	

Notes: Obese adults are defined as those whose Body Mass Index (BMI) is greater or equal to 30 (see Annex 3 for survey questions used). Except for the first column, calculations are based on ordinary least-squares regressions among adults aged 25-64. Cells highlighted in grey are statistically significant and different from zero at the 5% level. Non-linear models (probit models) produce similar results.

Source: European Health Interview Survey (EHIS) for Austria, Belgium, the Czech Republic, Estonia, France, Greece, Hungary, Poland, the Slovak Republic, Slovenia, Spain and Turkey. National Drug Strategy Household Survey, for Australia. Canadian Community Health Survey for Canada. National Health Survey for Chile. Health Survey for England. Questionersurvey, Health and Wellbeing of Icelanders for Iceland. Survey of Lifestyle and Attitudes to Nutrition for Ireland. Social Survey for Israel. Health Interview Survey for the Netherlands. New Zealand Health Survey for New Zealand. Norwegian Health Survey for Norway. Living Conditions Surveys for Sweden. National Health Interview Survey for the United States. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.


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Table A8.4. Percentage-point differences in the “likelihood of smoking” associated with an increase in the level of educational attainment (2011)


Percentage of 25-64 year-olds, by level of educational attainment

	Year	Proportion of adults who smoke among those who have attained upper secondary education	Difference in outcome from below upper secondary to upper secondary			Difference in outcome from upper secondary to tertiary			
			No adjustments	Adjustments age, gender	Adjustments age, gender, income	No adjustments	Adjustments age, gender	Adjustments age, gender, income	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Australia	2010	24.5	-5.0	-7.6	-6.0	-11.9	-11.7	-10.2
	Austria	2006	29.7	-1.4	-4.5	-3.6	-11.1	-11.4	-10.3
	Belgium	2008	33.2	-3.6	-6.0	-4.7	-14.8	-14.9	-12.0
	Canada	2010	30.4	-11.6	-12.4	-9.8	-13.6	-13.4	-11.4
	Chile	2009-10	44.8	11.6	7.3	7.7	7.4	5.0	3.6
	Czech Republic	2008	37.9	-9.5	-13.0	-11.4	-13.1	-14.3	-11.6
	Denmark		m	m	m	m	m	m	m
	England	2010	24.2	-9.8	-12.5	-8.7	-9.5	-10.6	-7.3
	Estonia	2006	34.1	-12.1	-11.1	-9.9	-15.8	-13.7	-12.8
	Finland		m	m	m	m	m	m	m
	France	2008	31.7	1.0	-2.4	-2.4	-4.5	-6.0	-6.0
	Germany		m	m	m	m	m	m	m
	Greece	2009	50.2	4.2	0.7	-0.5	-10.7	-11.3	-11.4
	Hungary	2009	37.8	-11.8	-13.9	-11.5	-17.5	-17.1	-13.5
	Iceland	2007	24.3	-12.1	-12.9	-11.7	-6.5	-7.6	-6.1
	Ireland	2007	30.3	-8.1	-11.4	-8.6	-7.0	-8.4	-6.9
	Israel	2010	34.9	2.6	2.6	3.7	-14.1	-13.2	-11.8
	Italy		m	m	m	m	m	m	m
	Japan		m	m	m	m	m	m	m
	Korea		m	m	m	m	m	m	m
	Luxembourg		m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m
	Netherlands	2008	32.2	m	m	m	m	m	m
New Zealand	2011	23.1	m	m	m	m	m	m	
Norway	2008	33.2	-15.2	-15.3	-12.6	-11.6	-11.9	-10.3	
Poland	2009	38.2	-5.1	-7.2	-5.6	-15.1	-13.9	-12.5	
Portugal		m	m	m	m	m	m	m	
Slovak Republic	2009	34.9	-2.43	-6.79	-5.44	-12.8	-12.8	-12.0	
Slovenia	2007	32.0	-1.2	-1.9	-9.1	-8.1	-0.1	-7.5	
Spain	2009	38.2	0.2	-2.6	-1.8	-11.1	-11.5	-10.7	
Sweden	2011	19.0	m	m	m	m	m	m	
Switzerland		m	m	m	m	m	m	m	
Turkey		m	m	m	m	m	m	m	
United States	2011	29.0	-3.4	-3.3	-0.3	-17.1	-17.1	-13.2	
	OECD average		32.5	-4.6	-6.7	-5.6	-10.9	-10.8	-9.7
	EU21 average		33.6	-4.6	-7.1	-6.4	-11.6	-11.2	-10.4
Other G20	Argentina		m	m	m	m	m	m	
	Brazil		m	m	m	m	m	m	
	China		m	m	m	m	m	m	
	India		m	m	m	m	m	m	
	Indonesia		m	m	m	m	m	m	
	Russian Federation		m	m	m	m	m	m	
	Saudi Arabia		m	m	m	m	m	m	
	South Africa		m	m	m	m	m	m	
		G20 average		m	m	m	m	m	m

Notes: Adults who smoke are defined as those who currently smoke or otherwise use tobacco products (see Annex 3 for survey questions used). Except for the first column, calculations are based on ordinary least-squares regressions among adults aged 25-64. Cells highlighted in grey are statistically significant and different from zero at the 5% level. Non-linear models (probit models) produce similar results.

Source: European Health Interview Survey (EHIS) for Austria, Belgium, the Czech Republic, Estonia, France, Greece, Hungary, Poland, the Slovak Republic, Slovenia and Spain. National Drug Strategy Household Survey, for Australia. Canadian Community Health Survey for Canada. National Health Survey for Chile. Health Survey for England. Questionersurvey, Health and Wellbeing of Icelanders for Iceland. Survey of Lifestyle and Attitudes to Nutrition for Ireland. Social Survey for Israel. Health Interview Survey for the Netherlands. New Zealand Health Survey for New Zealand. Norwegian Health Survey for Norway. Living Conditions Surveys for Sweden. National Health Interview Survey for the United States. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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