



## Adult obesity international comparisons data factsheet

### Key points:

- Worldwide in 2014, more than 1.9 billion adults (18 years and older) were overweight. Of these, over 600 million were obese, representing 13% of the total adult population
- The UK ranks 8th for overweight prevalence (including obesity) for men and women combined, out of the 34 Organisation for Economic Cooperation and Development (OECD) countries (Figure 1)
- The UK ranks 8th for overweight prevalence (including obesity) in men (66.6%) and 7th for women (57.2%), out of the 34 OECD countries (Table 1)
- The UK ranks 5th for obesity prevalence among men (24.5%) and 10th for women (25.4%), out of the 34 OECD countries (Table 2)
- The US ranks 1st for obesity prevalence among men (31.7%) and 2nd for women (33.9%), out of the 34 OECD countries. Turkey has the highest prevalence of obesity among women at 34.1% (Table 2)
- Japan has the lowest prevalence of obesity among men (4.5%) and women (3.3%) as well as the lowest prevalence of overweight (including obesity) for both men (28.9%) and women (17.6%) (Table 2)
- Trends over 30 years show that overweight prevalence (including obesity) in England is consistently lower than in the US. However, the rate of increase is higher. Overweight levels in England have increased by 72%: from 36.0% in 1980 to 62.1% in 2013, compared to a 46% increase in the US over the same time period (Figure 2)
- Some caution is needed when comparing obesity prevalence internationally as there can be differences in data collection methods, timing and frequency of surveys

## Introduction

Worldwide in 2014, more than 1.9 billion adults (18 years and older) were overweight. Of these, over 600 million were obese, representing 13% of the total adult population. The worldwide prevalence of obesity more than doubled between 1980 and 2014.<sup>1</sup>

This factsheet presents data on the prevalence of overweight and obesity among adults in the OECD countries. The data is sourced from statistics published in The Lancet from the Global Burden of Disease project<sup>2</sup> and data from the OECD iLibrary.<sup>3</sup>

## Issues to consider when comparing adult obesity data internationally

National estimates of obesity are derived either from health examinations or self-reported height and weight. It is likely that obesity prevalence figures based on self-reported measures are lower than those based on actual measurements as respondents tend to underestimate weight and overestimate height.<sup>4</sup> This difference limits comparability between studies and comparisons of self-reported with measured data should be interpreted with caution.

Most obesity prevalence data is obtained from national health surveys which are likely to be representative of the general population of that country. However, sampling methods in surveys may differ in type and quality between countries. Additionally, data is often not age or sex standardised to a global reference population so differences in the age and sex structure of the populations of different countries are not accounted for. These issues also reduce the comparability of international data.

Where possible, prevalence estimates for the same time period should be compared; as prevalence is generally increasing across all countries over time, older data would show a lower prevalence than data from more recent years if available. This is not always possible as different countries undertake surveys at different time points and few collect data annually.

## Current figures

A paper in *The Lancet* in 2014 (Global, regional and national prevalence of overweight and obesity in children and adults 1980–2013: A systematic analysis)<sup>2</sup> analysed data from a series of surveys, reports and published studies for countries around the world. Statistical models were used to synthesise gaps in timeline data and adjust data for self-report. Data was weighted according to the level of uncertainty in order to estimate prevalence of obesity and overweight for age, sex, country and year. Age-standardised prevalence rates for adults aged 20 years and above were calculated and presented with 95% uncertainty intervals. There are limitations with using modelled data which are outlined in the *Lancet* paper.<sup>2</sup> The benefits are that using modelled data enables direct comparisons to be made between countries which otherwise would not be possible.

Data from *The Lancet* on prevalence of overweight (including obesity) and obesity alone among adults aged 20 years and above in 2013 for countries in the OECD is presented in Figure 1, Table 1, Table 2 and described below.

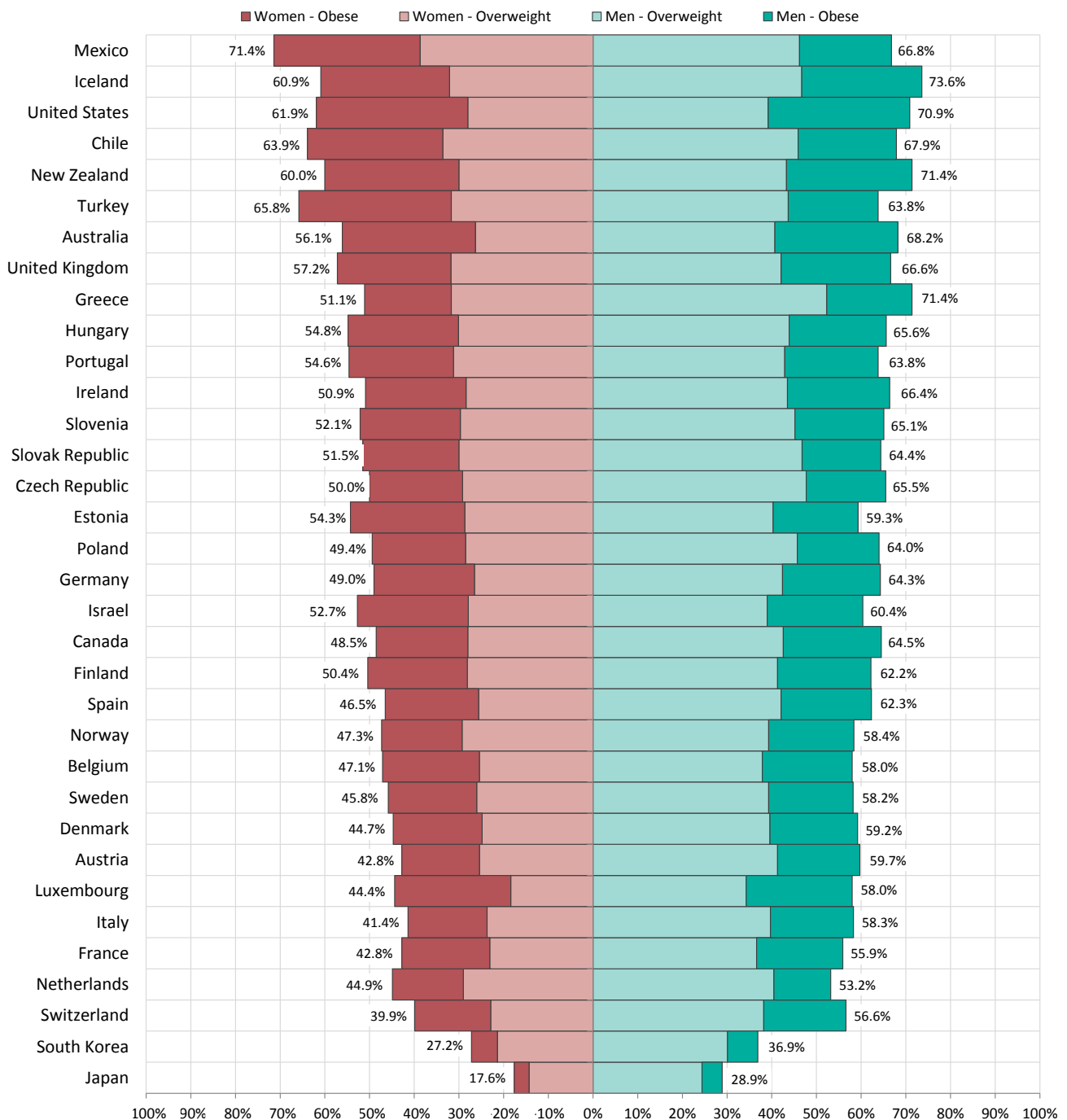
The UK is ranked 8th out of the 34 OECD countries for prevalence of overweight (including obesity) for men and women combined. The proportion of overweight or obese men in the UK is 8th highest at 66.6% (95% uncertainty intervals 65.3% to 68.0%) and for women is 7th highest at 57.2% (55.7% to 58.6%).

Similarly, the UK is ranked 8th out of the 34 OECD countries for prevalence of obesity for men and women combined. The proportion of obese men in the UK is 5th highest at 24.5% (95% uncertainty intervals 23.4% to 25.7%) and for women is 10th highest at 25.4% (24.2% to 26.6%).

The US has the highest proportion of obese men at 31.7% (95% uncertainty intervals 30.0% to 33.4%) and the second highest proportion of obese women at 33.9% (31.8% to 35.7%) out of the 34 OECD countries. Turkey has the highest prevalence of obesity among women at 34.1% (32.4% to 35.8%). Iceland has the highest proportion of overweight (including obesity) in men at 73.6% (71.3% to 75.8%) and Mexico has the highest prevalence of overweight (including obesity) among women (71.4% (69.5% to 73.2%)).

Japan has the lowest prevalence of obesity among men (4.5% (95% uncertainty intervals 4.0% to 5.0%)) and women (3.3% (3.0% to 3.7%)) as well as the lowest prevalence of overweight (including obesity) for both men (28.9% (27.1% to 30.7%)) and women (17.6% (16.5% to 18.9%)).

**Figure 1: International overweight and obesity prevalence in adults by OECD country**



Data source: The Lancet, Systematic analysis for the Global Burden of Disease Study 2013<sup>2</sup>

The data in the chart is ordered based on the prevalence of overweight (including obesity) for men and women combined.

Percentages given on the chart show the proportion of men and women that are overweight (including obese).

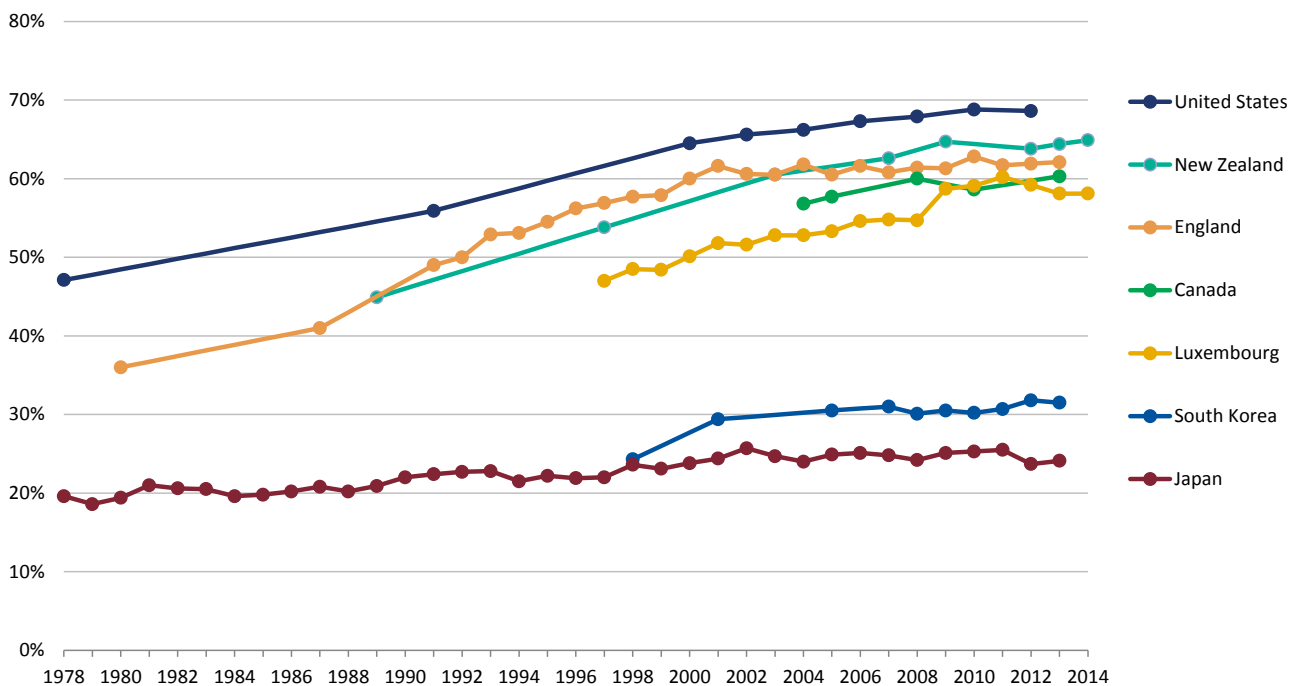
## Trends in international adult overweight and obesity prevalence

Figure 2 presents data from the OECD iLibrary for OECD countries with the most complete and up to date data between 1978 and 2014.<sup>3</sup> Only countries with measured data are included as the trend in self-report data may be affected by changes in accuracy of self-reported measures over time.

The US has the highest prevalence of overweight (including obesity) throughout the period and the rate has increased from 47.1% in 1978 to 68.6% in 2013. While the overweight prevalence in England<sup>a</sup> is lower than in the US, the rate of increase is higher and overweight levels have increased by 72% from 36.0% in 1980 to 62.1% in 2013 compared to a 46% increase in the US over the same time period.

Even in Japan, which has the lowest obesity prevalence worldwide, the prevalence of overweight and obesity has increased from 19.6% in 1978 to 24.1% in 2013, a rise of 23%.

**Figure 2: Trends in adult prevalence of overweight (including obesity) in a selection of OECD countries based on measured data, 1978–2014**



Data source: The Organisation for Economic Co-operation and Development (OECD)<sup>3</sup>

<sup>a</sup> Data for the UK is not available in the OECD iLibrary; England data, sourced from the Health Survey for England, are presented.

**Table 1: Percentage of adults (aged 20 years and over) classified as overweight (including obese) by OECD country with 95% uncertainty intervals**

	Men % overweight	Men 95% uncertainty intervals		Women % overweight	Women 95% uncertainty intervals	
Australia	68.2	65.6	70.5	56.1	53.4	58.9
Austria	59.7	57.0	62.3	42.8	40.1	45.4
Belgium	58.0	55.2	60.8	47.1	44.3	49.9
Canada	64.5	62.0	67.0	48.5	45.9	51.1
Chile	67.9	65.5	70.3	63.9	61.3	66.4
Czech Republic	65.5	62.9	68.2	50.0	47.2	52.7
Denmark	59.2	56.5	61.9	44.7	41.7	47.7
Estonia	59.3	56.5	62.0	54.3	51.5	57.2
Finland	62.2	59.5	64.9	50.4	47.5	53.2
France	55.9	53.2	58.7	42.8	40.0	45.7
Germany	64.3	61.9	66.8	49.0	46.5	51.4
Greece	71.4	68.9	73.7	51.1	48.2	54.0
Hungary	65.6	63.0	68.1	54.8	52.0	57.5
Iceland	73.6	71.3	75.8	60.9	58.0	63.8
Ireland	66.4	63.9	68.8	50.9	48.3	53.6
Israel	60.4	57.6	63.2	52.7	49.6	55.6
Italy	58.3	55.5	61.1	41.4	38.9	44.2
Japan	28.9	27.1	30.7	17.6	16.5	18.9
Luxembourg	58.0	55.1	60.8	44.4	41.6	47.2
Mexico	66.8	64.9	68.6	71.4	69.5	73.2
Netherlands	53.2	51.1	55.4	44.9	42.3	47.5
New Zealand	71.4	69.6	73.3	60.0	57.8	62.2
Norway	58.4	55.7	61.0	47.3	44.4	50.2
Poland	64.0	61.4	66.7	49.4	46.8	52.1
Portugal	63.8	61.2	66.4	54.6	51.7	57.6
Slovak Republic	64.4	61.8	66.9	51.5	48.9	54.1
Slovenia	65.1	62.3	67.6	52.1	49.1	54.8
South Korea	36.9	35.1	38.8	27.2	25.6	28.9
Spain	62.3	60.0	64.9	46.5	43.7	48.9
Sweden	58.2	55.6	61.0	45.8	43.2	48.5
Switzerland	56.6	53.7	59.4	39.9	37.0	42.9
Turkey	63.8	62.1	65.5	65.8	64.2	67.5
United Kingdom	66.6	65.3	68.0	57.2	55.7	58.6
United States	70.9	69.2	72.5	61.9	59.8	63.8

Data source: The Lancet, Systematic analysis for the Global Burden of Disease Study 20132

**Table 2: Percentage of adults (aged 20 years and over) classified as obese by OECD country with 95% uncertainty intervals**

	Men % obese	Men 95% uncertainty intervals		Women % obese	Women 95% uncertainty intervals	
Australia	27.5	25.2	29.8	29.8	27.3	32.4
Austria	18.4	16.6	20.3	17.4	15.6	19.4
Belgium	20.1	18.0	22.1	21.7	19.5	24.1
Canada	21.9	20.0	23.9	20.5	18.7	22.5
Chile	22.0	20.1	24.1	30.3	27.9	32.9
Czech Republic	17.8	16.0	19.6	20.8	18.8	22.9
Denmark	19.6	17.7	21.9	19.9	17.7	22.0
Estonia	19.0	17.2	21.0	25.6	23.2	28.1
Finland	20.9	18.9	23.2	22.3	20.3	24.6
France	19.3	17.4	21.4	19.7	17.7	21.7
Germany	21.9	20.2	23.8	22.5	20.5	24.7
Greece	19.1	17.4	21.1	19.4	17.6	21.4
Hungary	21.7	19.6	24.0	24.7	22.4	27.2
Iceland	26.9	24.4	29.7	28.8	26.0	31.5
Ireland	22.9	20.8	25.0	22.5	20.4	24.7
Israel	21.4	19.4	23.5	24.8	22.5	27.0
Italy	18.6	16.9	20.4	17.7	15.9	19.5
Japan	4.5	4.0	5.0	3.3	3.0	3.7
Luxembourg	23.7	21.3	26.3	26.0	23.6	28.7
Mexico	20.6	18.9	22.5	32.7	30.6	35.0
Netherlands	12.7	11.6	14.0	15.9	14.4	17.4
New Zealand	28.1	26.3	29.9	30.0	28.1	31.9
Norway	19.1	17.1	21.4	18.0	16.1	20.0
Poland	18.3	16.5	20.3	20.9	18.9	23.2
Portugal	20.9	19.0	23.1	23.4	21.0	25.9
Slovak Republic	17.6	15.7	19.5	21.5	19.3	23.7
Slovenia	19.9	17.9	22.0	22.4	20.2	24.9
South Korea	6.8	6.0	7.7	5.8	5.2	6.5
Spain	20.2	18.5	22.1	20.9	19.0	23.1
Sweden	18.9	17.0	21.0	19.8	17.7	21.9
Switzerland	18.4	16.5	20.1	17.0	15.3	18.8
Turkey	20.1	18.7	21.3	34.1	32.4	35.8
United Kingdom	24.5	23.4	25.7	25.4	24.2	26.6
United States	31.7	30.0	33.4	33.9	31.8	35.7

Data source: The Lancet, Systematic analysis for the Global Burden of Disease Study 2013<sup>2</sup>

## Definitions

### Body mass index and weight classification in adults

Body mass index (BMI) is a measure of weight status. BMI is a person's weight in kilograms divided by the square of their height in metres. The following cut-offs are recommended by the National Institute for Health and Care Excellence (NICE)<sup>5</sup> to classify adult BMI:

BMI range (kg/m <sup>2</sup> )	Classification
Less than 18.5	Underweight
18.5 to less than 25	Healthy weight
25 to less than 30	Overweight
30 to less than 40	Obese I and II
Greater than or equal to 40	Obese III

### Uncertainty intervals

Uncertainty intervals are included for overweight and obesity prevalence in this factsheet. Like confidence intervals they provide a margin of error around the data points. The 95% uncertainty intervals were calculated by Ng M, Fleming T, Robinson M, Thomson B et al. (2013) and published with the prevalence data alongside a detailed description of how they were calculated. The uncertainty intervals reflect multiple sources of uncertainty, including sampling uncertainty and uncertainty arising from the empirical adjustment of self-report data.<sup>2</sup>

## References

1. WHO fact sheet on obesity and overweight, January 2015. [www.who.int/mediacentre/factsheets/fs311/en](http://www.who.int/mediacentre/factsheets/fs311/en)
2. Ng M, Fleming T, Robinson M, Thomson B et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*. 2014;384(9945):766–81.
3. OECD. Overweight or obese population (indicator). 2016. doi: 10.1787/86583552-en. (Accessed on 23 June 2016) <https://data.oecd.org/healthrisk/overweight-or-obese-population.htm>
4. Health and Social Care Information Centre. Health Survey for England 2011, 2012. [www.hscic.gov.uk/catalogue/PUB09300/HSE2011-All-Chapters.pdf](http://www.hscic.gov.uk/catalogue/PUB09300/HSE2011-All-Chapters.pdf)



5. National Institute for Health and Care Excellence. Obesity: identification, assessment and management. London, 2014. (Accessed on 28 July 2016)  
[www.nice.org.uk/guidance/cg189](http://www.nice.org.uk/guidance/cg189)

(Web links accessed 26/08/2016)

## Further reading and resources

Global Burden of Disease data visualization: overweight and obesity, 2014.

[www.healthdata.org/data-visualization/overweight-and-obesity-viz](http://www.healthdata.org/data-visualization/overweight-and-obesity-viz)

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