

Diet, physical activity and obesity statistics

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Foreword

The past decade has seen unprecedented advances in the fight against diseases of the heart and circulation, collectively known as cardiovascular disease (CVD). Premature deaths from CVD are falling and treatments are improving all the time. Nevertheless, it still remains the major cause of premature death and disability in the UK. This is all the more alarming since CVD is largely preventable and the risk factors for it are well known and amenable to modification through changes in life style. In this context it is pleasing to note the significant reduction in the amount of saturated fat that the UK population is eating, reported in the 2006 diet, physical activity and obesity statistics supplement. This shows what can be done if there is a collective will to do it.

However, the statistics provide little else to be proud of and sound loud alarm bells about the future. They paint a picture of a population that is becoming fatter, avoids eating healthy foods and takes little exercise. The inevitable consequence is the development of obesity, and in particular central obesity, caused by fat deposited inside the abdomen, which in turn leads to the development of type II diabetes, once a disease of old age but now increasingly a disease of the young. People with diabetes are particularly prone to develop vascular disease and suffer premature heart attacks and strokes.

In effect the statistics provide a snapshot of what might happen to CVD rates in the future. If these behavioural trends are not reversed we are likely to be facing a future epidemic of CVD that will undo all the good that has been achieved over the past decade. Reversing these trends will not be easy and will take the combined efforts of both national and local government, the health services, the food industry and, most importantly, individuals themselves.

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Summary

Diet

- A diet which is high in fat, particularly saturated fat and in salt, and low in complex carbohydrates and fruit and vegetables increases the risk of chronic diseases – particularly CVD and cancer.
- Low fruit and vegetable consumption causes around 4% of the total disease burden in developed countries, and about 30% of CHD and 20% of stroke.
- Only 13% of men and 15% of women, and 13% of boys and 12% of girls, consume the recommended five or more portions of fruit and vegetables a day.
- Around 20% of adults exceed the recommended levels of saturated fat consumption.
- Saturated fat intake in children (around 14%), while lower than found in adults, is still above the target of 11%.
- Salt consumption among men is almost double the recommended level of 6g/day.

Physical activity

- Low levels of physical activity cause around 3% of the total disease burden in developed countries, and about 20% of CHD and 10% of stroke.
- In England, Wales and Northern Ireland only about a third of men and around a quarter of women meet the Government's recommendation of a minimum of 30 minutes of at least moderate intensity activity on five or more days of the week. In Scotland the rates are slightly higher: 42% of men and 30% of women meet the recommendation.
- In England, the ambitious target that 70% of adults should meet the recommended level of physical activity by 2020 is unlikely to be met. Between 1997 and 2004 the proportion of people meeting the government guideline for physical activity increased from 32% to 37% in men and from 21% to 25% in women.
- Around 70% of English boys and 60% of girls were active for at least an hour a day.
- The target in Scotland is to increase this number to 80% by 2022.

Overweight and obesity

- Over 7% of the total disease burden in developed countries is caused by raised body mass index (BMI), around a third of CHD and ischaemic stroke and almost 60% of hypertensive disease in developed countries is due to overweight.
- The proportion of overweight men and women is similar in England, Scotland and Wales.
- In England and Scotland, rates of obesity are similar for men (around 22%) and women (around 24%) but lower in Wales; 17% of men and 18% for women.
- The percentage of adults who are obese has increased by over 50% in the last decade. This increase is particularly marked in men who are now as likely to be obese as women.
- In England and Scotland around a third of boys and girls are overweight or obese.
- Between 1995 and 2004 the prevalence of obesity nearly doubled among English boys (from 11% to 19%) and increased by over a half in girls (from 12% to 19%). Between 1998 and 2003 obesity in Scottish boys increased from 14% to 18% while obesity among girls remained steady at 14%.

Introduction

This is the first edition of *Diet, physical activity and obesity statistics* published by the British Heart Foundation. *Diet, physical activity and obesity statistics* is designed for policy makers, health professionals, medical researchers and anyone else with an interest in cardiovascular disease (CVD). It aims to provide the most recent statistics on diet, physical activity and obesity as these relate to CVD mortality and morbidity.

Diet, physical activity and obesity statistics is divided into three sections. The first presents data on diet and nutrition, the second on physical activity and the third on overweight and obesity.

Each section includes data on public health targets and the proportion of adults, children and young people meeting these targets. Data is provided on differences by age and sex, geographic location, socio-economic status and ethnicity. Information on other factors which contribute to dietary patterns, levels of physical activity and rates of overweight and obesity is also provided. Estimates are given relating to the direct cost to the National Health Service of unhealthy diets, low levels of physical inactivity and high levels of overweight and obesity in the UK.

Where possible individual data for England, Scotland, Wales and Northern Ireland are provided, and comparisons made between these and other countries.

Various sources of information have been used in compiling this supplement and these are listed in the footnotes to each table. The sources of data can be divided into routinely collected data, national studies and local studies. Each source has its strengths and weaknesses and not all sources provide data for all ages or even both sexes. Data is not always available for all regions of the United Kingdom and data are collected in different ways with different degrees of validity and reliability. Sample sizes of studies vary considerably and so do sampling methods. Comparisons between different studies should be made with caution.

In compiling this supplement we have aimed to investigate and cite the most reliable and most recent data on diet, physical activity and obesity. We have not included data from studies conducted outside the UK (except when making international comparisons).

All the tables and figures in the *Diet, physical activity and obesity statistics* supplement are also available on the British Heart Foundation's www.heartstats.org website. Further copies of this publication can be downloaded from the website, as well as copies of all recent *Coronary heart disease statistics* publications.

The www.heartstats.org website aims to be the most up-to-date source of statistics on cardiovascular disease in the UK. The website is updated on an ongoing basis and contains a wider range of tables and figures than are available in this supplement or the *Coronary heart disease statistics* publications. To keep informed of latest additions to the British Heart Foundation's statistics website, sign up to the mailing list at www.heartstats.org/maillinglist.asp.

1. Diet

It is now universally recognised that a diet which is high in fat, particularly saturated fat, sodium and sugar and which is low in complex carbohydrates, fruit and vegetables increases the risk of chronic diseases – particularly cardiovascular disease (CVD) and cancer. These risks are outlined in the World Health Organization 2003 report *Diet, nutrition and the prevention of chronic diseases*¹. The more recent World Health Organization *Global strategy on diet, physical activity and health* emphasised further the need to improve diets in individuals and populations across the world².

The dietary changes which would help to reduce rates of coronary heart disease (CHD) in the UK population were detailed in the 1994 report of the Government's Committee on the Medical Aspects of Food and Nutrition Policy (COMA)³. This recommended a reduction in fat intake, particularly saturated fat intake, a reduction in sodium intake and an increase in fruit and vegetable and complex carbohydrate intake. In the 2003 report *Salt and Health*, the Scientific Advisory Committee on Nutrition (SACN) (which replaced COMA in 2000) repeated COMA's guidance on salt intake in adults and introduced additional guidance on reducing salt intake in children⁴. In 2005 the Government dietary objectives were reiterated in *Choosing a Better Diet: a food and health action plan*⁵.

Research from the World Health Organization and others highlighted the specific importance of low fruit and vegetable consumption as a cause of CHD. The World Health Report 2002 estimated that around 4% of all disease burden in developed countries was caused by low fruit and vegetable consumption, and that just under 30% of CHD and almost 20% of stroke in developed countries was due to fruit and vegetable consumption levels below 600g/day⁶. Other dietary causes of ill health such as high saturated fat intake or a high sodium intake are probably just as important as a low fruit and vegetable intake but the World Health Organization have yet to calculate the precise proportion of the disease burden due to such causes.

Public health targets

There are a number of public health targets and objectives for healthy diets in England, Wales and Scotland, but none have been set for Northern Ireland (Table 1.1). Salt consumption remains well above the levels recommended by SACN (Table 1.2 and Figure 1.2). A reduction in the salt content of processed foods and drinks is required if the target is to be met. Progress towards the targets for saturated fat, total fat, added sugar, fibre and fruit and vegetable consumption has been limited (Table 1.3 and Figures 1.3a, 1.3b and 1.3c).

Overall levels of consumption – sex and age differences

Levels of consumption of food and nutrients are fairly difficult to assess. The National Diet and Nutrition Survey (NDNS)⁷ provided data on food and nutrient consumption collected using a seven-day food diary. The 2000/01 NDNS suggested that the percentage of food energy derived from fat was around 36% in men and 35% in women compared with COMA's recommendation of 35%, and from saturated fat it was just over 13% for both men and women (compared with

the recommendation of 11%). In 2000/01 the NDNS reported that, on average, both men and women consumed fewer than three portions of fruit and vegetables a day – 2.7 for men and 2.9 for women (Table 1.2). Overall, just 13% of men and 15% of women consumed the recommended five or more portions of fruit and vegetables a day. These proportions increased with age: none of the men and just 4% of the women aged 19–24 years surveyed in the NDNS consumed five or more portions of fruit and vegetables, compared with 24% of men and 22% of women aged 50–64 years.

The NDNS used 24-hour urine collections to determine salt intake. Data from 2000/01 suggested that the average daily salt intake for men was 11.0g and for women 8.1g (Table 1.2 and Figure 1.2), both exceeding the SACN target of no more than 6g a day.

Temporal trends

Data from the National Food Survey (up to 2000) and the more recent Expenditure and Food Survey (2001/02 onwards)⁸ allow us to look at general trends in the British diet over time.

The percentage of total energy derived from total fat in the British diet is decreasing, but only gradually, from around 40% in 1975 to just less than 37% in 2004/05. The type of fat eaten has changed more significantly. The proportion of total energy derived from saturated fat fell from around 19% in 1975 to just less than 15% in 2004/05. Consumption of both non-milk extrinsic sugars⁹ and fibre has not changed markedly in the last ten years (Table 1.3 and Figure 1.3a).

The Expenditure and Food Survey included food purchased outside of the home for the first time in 2001/02, so only short term trends are available for such foods. The data showed that there had been a slight decrease in the consumption of total fat and salt in foods purchased outside the home over the past four years (Table 1.4).

The trends in fat consumption are associated with changes in food purchasing patterns. Since the 1970s there have been falls in the consumption of many different types of foods with a relatively high total fat and saturated fat content, including whole milk and butter. There have also been increases in the consumption of foods which are relatively low in total fat and/or saturated fat such as reduced fat milks and spreads (Table 1.5 and Figures 1.5a, 1.5b, 1.5d and 1.5e).

Data from the Expenditure and Food Survey showed that between 1975 and 2004/05 the combined consumption of fruit and vegetables rose only slightly (Fig 1.3c)¹⁰. Data from the National Food Survey and the Expenditure and Food Survey suggested that the total consumption of fresh fruit had increased around fourfold since the early 1940s, but total consumption of fresh vegetables had declined (Table 1.5 and Figure 1.5c).

Children and young people

The 1997 NDNS for children¹¹, which used similar data collection methods as the adult NDNS, found that for both boys and girls around 35% of food energy was derived from fat and around 14% from saturated fat. Fat intake for children met the COMA target of 35%, while saturated fat intake was well above the target of 11%. Non-milk extrinsic sugars provided over 16% of food energy for both boys and girls, well above the COMA target of 11% (Table 1.6).

The 1997 NDNS for children found fruit and vegetable consumption among children was low

with one in five children eating no fruit at all during the week of survey (Table 1.6). More recently the 2004 Health Survey for England^{12,13} assessed fruit and vegetable consumption in children aged 5–15 years. Overall, only 13% of boys and 12% of girls reported eating the recommended five portions of fruit and vegetables daily, and 10% reported eating no portions of fruit or vegetables in the previous day. There has been very little change in the amount of fruit and vegetables consumed by children since 2001 (Table 1.7).

The Health Behaviour in School-aged Children survey¹⁴ (conducted for the World Health Organization) asked school children from participating countries about their dietary habits. English children aged 15 reported a lower fruit consumption than younger children. There was no similar trend for vegetable consumption. Older children were also more likely to eat sweets and drink soft drinks every day than younger children and similar trends were observed in Scotland and Wales although children in Scotland reported higher consumption of all foods (Table 1.8).

In the UK school meals contribute significantly to the diets of children. Primary and secondary school meals in England were recently compared with the Caroline Walker Trust guidelines for healthy school meals^{15, 16, 17}. Primary schools meals were found to be broadly in line with the guidelines. In secondary schools, however, the average nutritional content of the consumed meals failed to meet the guidelines for fat, saturated fat, non-milk extrinsic sugars and fibre (Table 1.9). Primary school children were much more likely to select vegetables and salads (14% of all food selections) than secondary school children (2% of all selections). Secondary school children were more likely to select high fat main dishes (such as burger or pizza) than primary school children (18% of all selections, compared with 10%) (Table 1.10 and Figures 1.10a and 1.10b).

National and regional differences

The Expenditure and Food Survey showed that people in Northern Ireland, Scotland, Wales and the North of England consumed less fruit and vegetables than those in the South East, South West, East or London. For example, in 2004/05 people living in the South West consumed nearly 50% more fruit and vegetables (excluding potatoes) than people living in Northern Ireland. The consumption of table salt varied widely in the UK. Within England salt consumption appeared to be lower in London than in other regions. There appeared to be no regional differences in total fat, saturated fat and non-milk extrinsic sugars consumption (Table 1.11).

Socio-economic differences

The Expenditure and Food Survey suggested that while there was little difference in the fat and saturated fat intake of different socio-economic groups, more fruit and vegetable were consumed in higher socio-economic groups (Table 1.12). Similar patterns for fat and fruit and vegetables consumption were shown for income quintiles; people in the highest income quintile consumed 15% more fruit and vegetables than those in the lowest income quintile (Table 1.13).

Data from the 2000/01 NDNS showed that adults in receipt of state benefits consumed fewer portions of fruit and vegetables than those who did not receive benefits. About one third of those in benefit households (35% of men and 30% of women) ate no fruit at all during the week of the survey compared with around one in seven of those (19% men and 12% women) in non-benefit households.

Fruit and vegetable consumption also varied between socio-economic groups among children.

The 2002 Health Survey for England¹⁸ found that children living in managerial or professional households were most likely to eat five portions of fruit and vegetables and ate, on average, the highest number of portions.

Ethnic differences

The Expenditure and Food Survey for 2004/05 showed considerable variation in nutritional intake for different ethnic groups. The percentage of food energy derived from total fat was lower in Chinese people than in any other ethnic group. Intake of saturated fat in Asian, Black and Chinese people was much lower than for White people (under 12% of food energy, compared to 15%). Vegetable consumption was highest among Asian and Chinese populations while fruit consumption was highest among Mixed and Black/British populations. Salt consumption was below the target of 6g/day for all ethnic groups except the White population. The consumption of non-milk extrinsic sugars was lowest in the Asian and Chinese ethnic groups (Table 1.14).

International differences

Data for 2003 from the World Health Organization¹⁹ showed that the proportion of energy available from fat varied across European countries from 14% in Azerbaijan to 42% in France. The proportion of energy available from fat in UK diets (just over 35%) was lower than the EU-25 average of 37% but higher than the European average of 32% (Table 1.15 and Figure 1.15a).

The availability²⁰ of fruit and vegetables was generally higher in Southern European countries than Northern, Western, Central and Eastern European countries (Table 1.15 and Figure 1.15b).

There are no comparable international data for saturated fat and salt intakes.

Factors contributing to uptake of healthy diets

Many factors influence diet. Food choice is affected by the availability, composition, price and commercial promotion of foods, individual factors such as age, income, knowledge and attitudes as well as social factors such as government regulations and cultural conditions.

Recent studies about food choice focus on people's perceptions about preparing and eating meals. The Food Standards Agency (FSA)²¹ found that around 20% of people believed they had time to prepare a meal from raw ingredients at most once a week, and 14% of people ate a main meal with all household members at most once a week (Table 1.16).

In the UK, when food producers make claims such as 'cholesterol lowering' or 'low in fat', they must also provide a label indicating the nutritional quality of the product. In 2005 the FSA found that around a quarter of people rarely or never consulted nutritional information on food labels. Of those who did, the most regular piece of information sought was the fat content. Over 40% of consumers doubted the accuracy of label information and more than half queried the accuracy of health claims (Tables 1.17 and 1.18).

Almost two thirds of people surveyed by the FSA in 2005 agreed that people should eat less foods and drinks containing fat, sugar or salt. Even higher proportions agreed that people should eat more vegetables and salad (86%), and fruit (85%), although there was less agreement on fish (48%) (Table 1.19). Around two thirds of people (67%) were able to recall government advice

that a healthy diet should contain five or more portions of fruit and vegetables per day (Table 1.20).

The relatively high price of fruit and vegetables compared to processed foods or confectionery may be a barrier to a healthy diet. When purchase of food items as a proportion of total food expenditure was considered, people from the highest income group spent nearly 20% more on fruit and vegetables than those from the lowest income group. This social gradient was not found for the purchase of confectionery (Table 1.21 and Figure 1.21).

The inflation-adjusted price of fruit and vegetables has increased by around three times since 1975 compared with a four-fold increase for all foods over the same period. This suggests that fruit and vegetables are less expensive today when compared against all other foods, but more expensive when compared to the cost of living (Table 1.22).

Food advertising may also affect food choices. Advertising can be measured using ‘impacts’; an ‘impact’ being equivalent to one audience member viewing one advertisement. In 2005 Ofcom²² estimated that there were 5 billion ‘impacts’ for food advertisements during children’s viewing time. This was the second highest number of impacts during children’s viewing time behind leisure equipment and included one billion impacts for chain restaurants, 1.1 billion impacts for confectionery and 1.2 billion impacts for cereals (Table 1.23). Food advertising during children’s viewing time comprised advertisements for prepared and convenience foods (26%), confectionery (20%), dairy products (17%) and chain restaurants (12%) (Table 1.24 and Figure 1.24).

Alongside advertising, foods can also be promoted by price reduction campaigns. Recent data collected by the National Consumer Council²³ showed how the top nine UK supermarkets each ran such price promotions on at least as many fatty and sugary foods as on fruit and vegetables in 2005 (Table 1.25 and Figure 1.25).

Economic costs

Diseases attributable in some part to a poor diet include cardiovascular disease, diabetes and some cancers. It was estimated that six billion pounds of direct costs to the NHS could be avoided each year if all members of the population consumed a healthy diet (Table 1.26).

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4. Scientific Advisory Committee on Nutrition (2003) *Salt and Health.* The Stationery Office: London. See www.sacn.gov.uk/pdfs/sacn_salt_final.pdf
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7. Office of National Statistics (2003) *The National Diet and Nutrition Survey: adults aged 19 to 64 years. Volumes 1–4.* The Stationery Office: London.
8. Office for National Statistics (2006) *Expenditure and Food Survey 2004/05.* The Stationery Office: London.
9. *Extrinsic sugars refer to sugars that are not contained within the cell walls of fruit, vegetables and plants. Non-milk extrinsic sugars refer to such sugars that are not naturally present in milk. Almost all sugar added to processed food consists of non-milk extrinsic sugars, which are more strongly associated with dental caries than all other sugars.*

10. *Food purchase data do not accurately describe food consumption patterns as not all food that is bought is consumed due to wastage. Levels of wastage may be different for different food types, so comparisons across food categories are tricky.*
11. *Office for National Statistics (2000) The National Diet and Nutrition Survey: young people aged 4 to 18 years. HMSO: London.*
12. *Department of Health (2005) Health Survey for England 2004. The Stationary Office: London.*
13. *Parents of children aged 12 years and under answered questions on fruit and vegetable consumption on behalf of the child, those aged 13–15 years answered the questions themselves.*
14. *World Health Organization (2004) Young people's health in context. Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/02 survey. World Health Organization: Geneva.*
15. *Crawley, H. (2005). Nutrient-based standards for school food: A summary of the standards and recommendations of the Caroline Walker Trust and the National Heart Forum. The Caroline Walker Trust: St Austell. See <http://www.cwt.org.uk/pdfs/eatingwell.pdf>*
16. *Nelson M, Nicholas J, Suleiman S, Davies O, Prior G, Hall L, Wreford S, Poulter J (2006) School meals in primary schools in England. Department for Education and Skills: London.*
17. *Nelson M, Bradbury J, Poulter J, McGee A, Msebele S, Jarvis L (2004) School meals in secondary schools in England. Department for Education and Skills: London.*
18. *Department of Health (2003) Health Survey for England 2002: The Health of Children and Young people. The Stationery Office: London.*
19. *World Health Organization (2005) European Health for All database. See <http://www.euro.who.int/hfad>*
20. *The WHO definition of food availability refers to the amount produced nationally plus imports minus exports.*
21. *TNS (2006) Consumer attitudes to food standards 2005. Food Standards Agency: London.*
22. *Ofcom (2006) Television advertising of food and drink products to children: options for new restrictions. Ofcom: London.*
23. *Dibb S (2005) Healthy competition: how supermarkets can affect your chances of a healthy diet. National Consumer Council: London.*

Table 1.1 *Selected dietary targets and objectives for the United Kingdom*

ENGLAND¹	
Total fat	To maintain the average total intake of fat at 35% of food energy
Saturated fat	To reduce the average total intake of saturated fat to 11% of food energy
Fruit and vegetables	To increase the average consumption of a variety of fruit and vegetables to at least five portions per day
Fibre	To increase the average intake of dietary fibre to 18 grams per day
Sugar	To reduce the average intake of added sugar to 11% of food energy
Salt	To reduce the average intake of salt to 6 grams per day by 2010
SCOTLAND²	
Total fat	To reduce the average percentage of food energy from total fat to no more than 35% by the year 2005
Saturated fat	To reduce the average percentage of food energy from saturated fatty acids to no more than 11% by the year 2005
Fruit and vegetables	To double the average intake of fruit and vegetables to more than 400g per day by the year 2005
Salt	To reduce the average intake of salt from 9.6g to 6g per day by the year 2005
WALES³	
Total fat	35% of food energy
Saturated fat	10% of total energy
Fruit and vegetables	At least five portions per day
Starchy food	37% of total dietary intake
Sugar	Average intake of non-milk extrinsic sugars not to exceed 60g/day
Salt	Reduce average intake to 6 grams per day
NORTHERN IRELAND	
No targets set	

Sources: 1. Department of Health (2005) *Choosing a Better Diet: a food and health action plan*. DH: London.
 2. The Scottish Office (1996) *Eating for Health. A Diet Action Plan for Scotland*. The Scottish Office: Edinburgh.
 3. Food Standards Agency Wales (2003) *Food and well being: reducing inequalities through a nutrition strategy for Wales*. FSA Wales: Cardiff.

Table 1.2 Consumption of selected nutrients and fruit and vegetables by sex and age, adults aged 19-64, 2000/01, Great Britain

	19-24	25-34	35-49	50-64	All	Target	Source
MEN							
Energy (kcal/d)	2,247	2,337	2,361	2,271	2,313	2,550	EAR*
Total fat (g/d)	85.8	87.1	88.3	84.5	86.5		
Total fat (% food energy)	36.0	35.8	35.9	35.6	35.8	35.0	DRV*
Saturated fat (g/d)	32.3	32.2	33.4	32.0	32.5		
Saturated fat (% food energy)	13.5	13.2	13.5	13.4	13.4	11.0	DRV*
Monounsaturated fatty acids (g/d)	29.6	29.9	29.6	27.9	29.1		
Monounsaturated fatty acids (% food energy)	12.4	12.3	12.0	11.8	12.1	13.0	DRV*
Polyunsaturated fatty acids (g/d)	14.7	15.4	15.4	14.9	15.2		
Polyunsaturated fatty acids (% food energy)	6.2	6.4	6.4	6.3	6.4	6.5	DRV*
n-3 fatty acids (g/d)	2.1	2.3	2.3	2.3	2.3		
n-3 fatty acids (% food energy)	0.9	1.0	1.0	1.0	1.0	0.2	DRV individual minimum*
Trans fatty acids (g/d)	3.0	2.9	3.0	2.9	2.9		
Trans fatty acids (% food energy)	1.2	1.2	1.2	1.2	1.2	2.0	DRV*
Protein (g/d)	77.8	90.6	90.1	88.8	88.2	55.5	RNI*
Total carbohydrate (g/d)	273	277	279	269	275		
Total carbohydrate (% food energy)	49.0	47.7	47.5	47.4	47.7	50.0	DRV*
Non-milk extrinsic sugars (g/d)	96	80	78	70	79		
Non-milk extrinsic sugars (% food energy)	17.4	13.9	13.1	12.2	13.6	11.0	DRV*
Non-starch polysaccharide fibre (g/d)	12.3	14.6	15.7	16.4	15.2	18.0	DRV*
Sodium (g/d)	4.4	4.6	4.4	4.2	4.4	2.4	GDA†
Salt (g/d)	11.0	11.4	11.1	10.5	11.0	6.0	GDA†
Calcium (mg/d)	867	1,030	1,049	1,035	1,016	700	RNI*
Iron (mg/d)	11.5	13.9	14.1	15.2	14.0	8.7	RNI*
Folate (µg/d)	305	376	355	373	359	200	RNI*
Fruit and vegetables (portions/d)	1.3	2.2	3.0	3.6	2.7	5.0	5 A DAY benchmark‡
Unweighted base	61	160	303	242	766		
Unweighted base (sodium and salt)	38	120	259	199	616		
WOMEN							
Energy (kcal/d)	1,665	1,570	1,654	1,642	1,632	1,940	EAR*
Total fat (g/d)	63.9	59.8	61.9	61.2	61.4		
Total fat (% food energy)	35.5	35.4	34.7	34.5	34.9	35.0	DRV*
Saturated fat (g/d)	23.5	22.4	23.6	23.7	23.3		
Saturated fat (% food energy)	12.9	13.2	13.2	13.3	13.2	11.0	DRV*
Monounsaturated fatty acids (g/d)	21.8	19.9	20.2	19.7	20.2		
Monounsaturated fatty acids (% food energy)	12.2	11.7	11.3	11.1	11.5	13.0	DRV*
Polyunsaturated fatty acids (g/d)	11.8	11.0	11.2	10.6	11.1		
Polyunsaturated fatty acids (% food energy)	6.6	6.6	6.3	6.1	6.3	6.5	DRV*
n-3 fatty acids (g/d)	1.7	1.6	1.7	1.8	1.7		
n-3 fatty acids (% food energy)	1.0	1.0	1.0	1.1	1.0	0.2	DRV individual minimum*
Trans fatty acids (g/d)	2.0	1.9	2.1	2.1	2.0		
Trans fatty acids (% food energy)	1.1	1.1	1.2	1.2	1.2	2.0	DRV*
Protein (g/d)	59.9	58.7	65.1	67.4	63.7	45.0	RNI*
Total carbohydrate (g/d)	206	196	206	203	203		
Total carbohydrate (% food energy)	49.1	48.7	48.6	48.1	48.5	50.0	DRV*
Non-milk extrinsic sugars (g/d)	60	49	51	48	51		
Non-milk extrinsic sugars (% food energy)	14.2	11.8	11.8	11.0	11.9	11.0	DRV*
Non-starch polysaccharide fibre (g/d)	10.6	11.6	12.8	14.0	12.6	18.0	DRV*
Sodium (g/d)	3.6	3.5	3.2	3.0	3.2	2.4	GDA†
Salt (g/d)	9.1	8.7	8.0	7.5	8.1	6.0	GDA†
Calcium (mg/d)	706	736	814	903	809	700	RNI*
Iron (mg/d)	10.0	9.8	12.9	12.3	11.6	14.8	RNI*
Folate (µg/d)	248	249	280	359	292	200	RNI*
Fruit and vegetables (portions/d)	1.8	2.4	2.9	3.8	2.9	5.0	5 A DAY benchmark‡
Unweighted base	78	211	379	290	958		
Unweighted base (sodium and salt)	57	158	299	228	742		

Notes: Estimates derived from 7-day dietary record, and urine analysis (salt and sodium only). All absolute levels (except sodium, salt and fruit and vegetables) are subject to under-reporting by approximately 25%.

DRV = Dietary Reference Value; EAR = Estimated Average Requirement; RNI = Reference Nutrient Intake; GDA = Guideline Daily Amount

All targets are for populations, unless otherwise stated. Salt = sodium x 2.5. Data are weighted for non-response.

All targets for adults aged 19-64 except energy, protein and iron (women only) which relate to adults aged 19-50.

Sources: Office for National Statistics (2002) *The National Diet and Nutrition Survey: adults aged 19 to 64 years. Volume 1.* HMSO: London

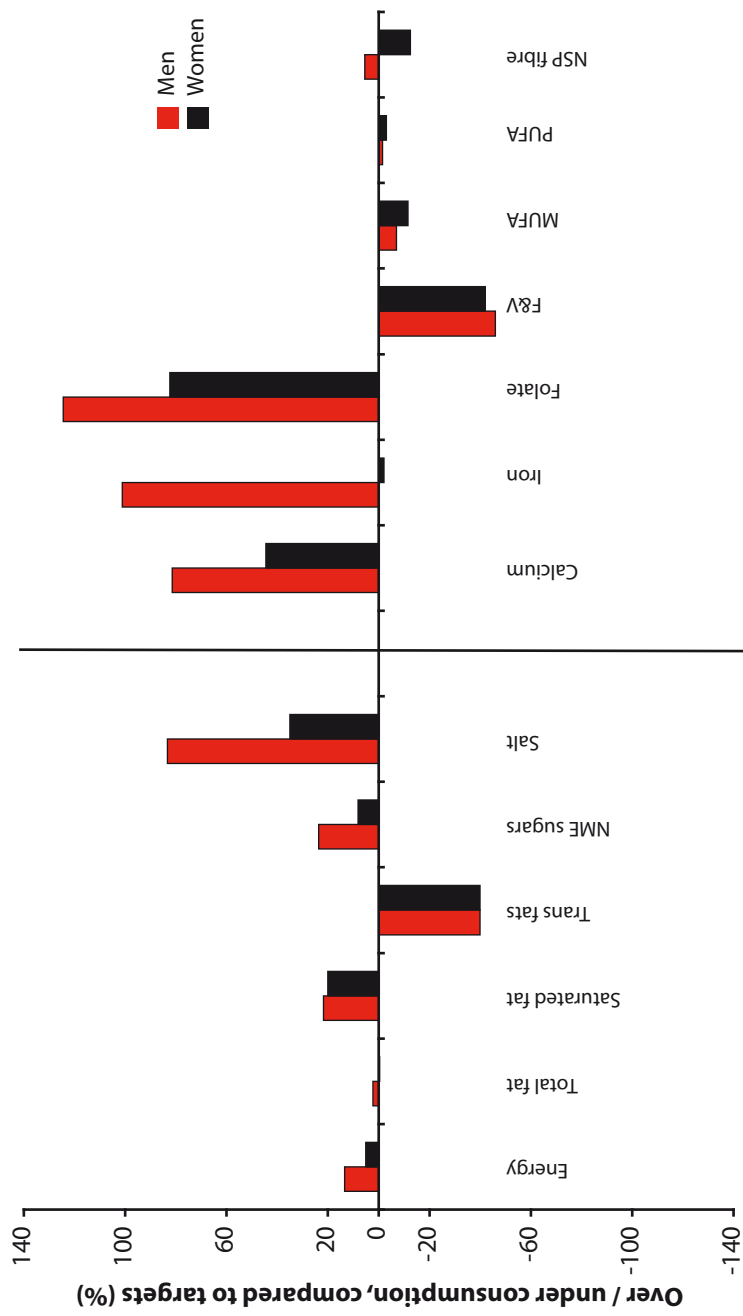
Office for National Statistics (2003) *The National Diet and Nutrition Survey: adults aged 19 to 64 years. Volumes 2 and 3.* HMSO: London

*Department of Health (1991) *Dietary reference values for food energy and nutrients for the United Kingdom.* HMSO: London

† Scientific Advisory Committee on Nutrition (2003) *Salt and health.* HMSO: London

‡ Department of Health (2004) *Choosing health: making healthy choices easier.* DoH: London

Fig 1.2 *Percentage difference between recommended and actual intake by sex and nutrient, adults aged 19-64, 2000/01, Great Britain*



Note: Absolute levels of consumption have been increased by 25% to account for under-reporting (except for salt and fruit and vegetables).

Table 1.3 Consumption of total fat, saturated fat, salt, sugar, fibre and fruit and vegetables, adults aged 16 and over, 1975-2004/05, Great Britain

<i>Consumption per person per day, total diet (i.e. including alcohol)</i>	1975	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001/02	2002/03	2003/04	2004/05
Energy (kcal)	2,489	2,439	2,208	2,058	2,143	2,241	2,168	2,102	2,056	2,152	2,089	2,099	2,077	2,048
Energy (kJ)	10.4	10.3	9.3	8.6	9.0	9.4	9.1	8.8	8.6	9.0	8.8	8.8	8.7	8.6
Fat (g)	111.7	112.0	102.1	93.5	89.1	93.5	89.0	85.9	82.7	86.2	85.7	85.4	84.8	83.4
Fat (% total energy)	40.4	41.3	41.6	40.9	37.4	37.6	36.9	36.8	36.2	36.1	36.9	36.6	36.7	36.7
Saturated fat (g)	53.4	49.1	43.0	37.2	35.5	36.8	35.4	34.3	32.8	34.6	33.9	33.7	33.6	32.9
Saturated fat (% total energy)	19.3	18.1	17.5	16.3	14.9	14.8	14.7	14.7	14.4	14.5	14.6	14.4	14.6	14.5
Total sugars (g)	*	*	*	*	129.0	134.0	130.0	125.0	123.0	131.0	122.3	123.7	124.3	122.5
Non-milk extrinsic sugars (g)	*	*	*	*	87.0	91.0	88.0	84.0	82.0	88.0	80.9	82.0	81.5	80.0
Non-milk extrinsic sugars (% total energy)	*	*	*	*	15.2	15.2	15.2	15.0	15.0	15.3	14.5	14.7	14.7	14.7
Non-starch polysaccharide fibre (g)	*	*	*	*	12.8	13.7	13.6	13.4	13.2	13.9	13.3	13.5	13.1	13.2
Sodium (g)	*	*	2.80	2.73	2.80	2.92	2.88	2.81	2.79	2.90	2.87	2.81	2.75	2.71
Salt (g)	*	*	7.00	6.83	7.00	7.30	7.20	7.03	6.98	7.25	7.17	7.03	6.87	6.77
Purchase per person per week														
Fruit and vegetables (excluding potatoes) (g)	1,818	2,059	2,018	2,164	2,254	2,334	2,369	2,329	2,322	2,381	2,248	2,306	2,269	2,274

Notes: Data pre-1996 are unadjusted National Food Survey data. 2001/02 data onwards are Expenditure and Food Survey data. 1996 to 2000 data are adjusted estimates from the National Food Survey. Because of the discontinuity between datasets, these trends need to be interpreted with caution. Consumption assumed from purchase data.

Sources: Office for National Statistics (2006) Expenditure and Food Survey 2004/05. The Stationery Office. London and previous editions
 Department for Environment, Food and Rural Affairs (2003) National Food Survey 2000. The Stationery Office. London and previous editions.

Fig 1.3a Consumption of total fat, saturated fat and NME sugars, adults aged 16 and over, 1975-2004/05, Great Britain, with "Choosing a Better Diet" targets

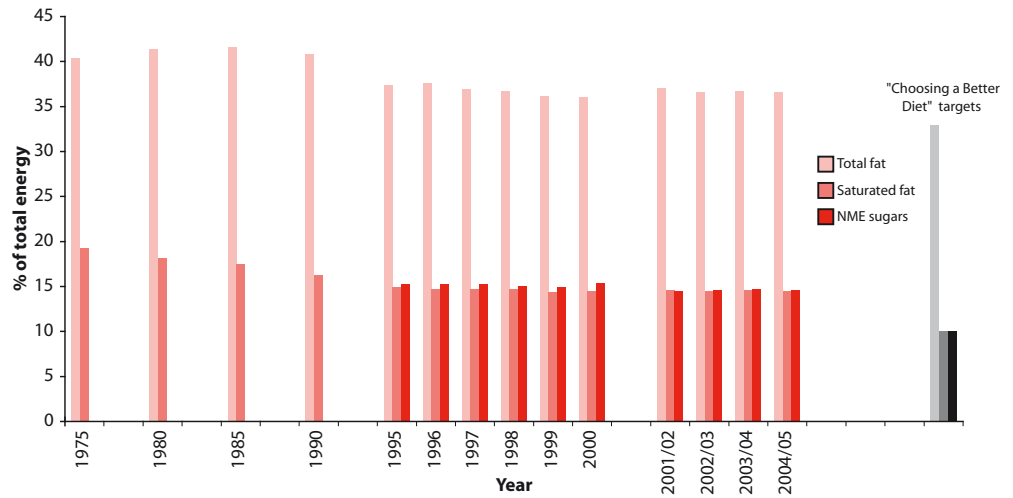


Fig 1.3b Consumption of fibre, adults aged 16 and over, 1975-2004/05, Great Britain, with COMA target

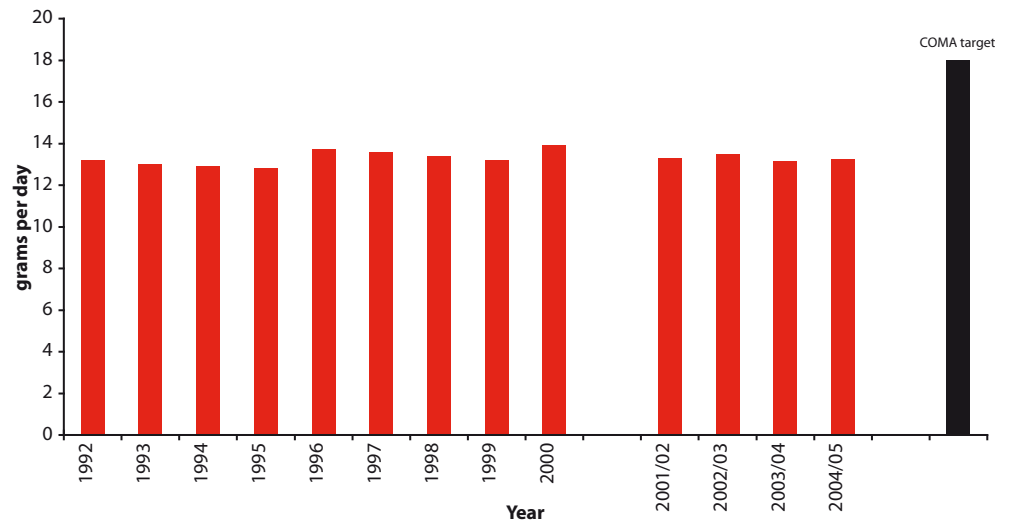


Fig 1.3c *Consumption of fruit and vegetables, adults aged 16 and over, 1975-2004/05, Great Britain, with 5-a-day benchmark*

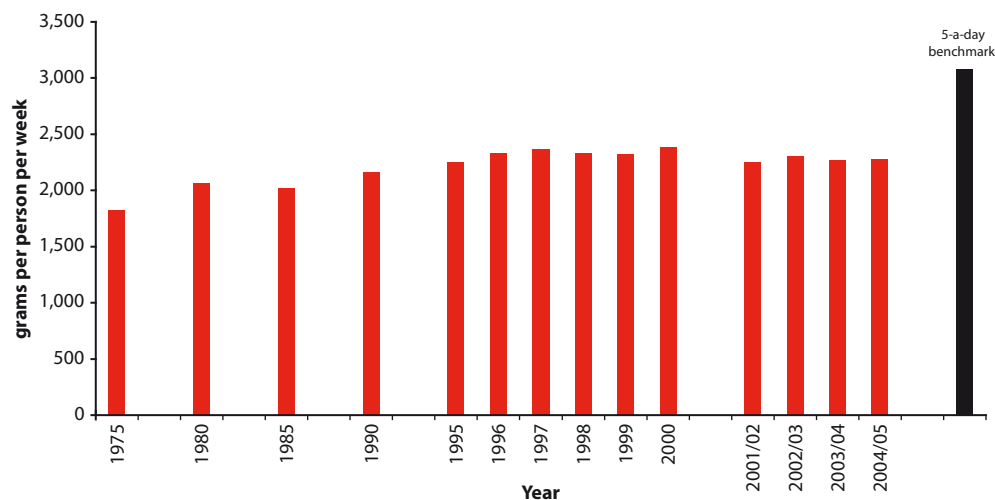


Table 1.4 *Consumption of total fat, saturated fat, salt, sugar and fibre from foods consumed outside of the home, adults aged 16 and over, 2001/02-2004/05, Great Britain*

<i>Consumption per person per day</i>	2001/02	2002/03	2003/04	2004/05
Energy (kcal)	212	210	205	191
Energy (kJ)	0.9	0.9	0.9	0.8
Fat (g)	7.9	7.9	7.7	7.2
Fat (% total energy)	33.5	33.9	33.8	33.9
Fat (% food energy)	39.1	39.3	39.4	39.3
Saturated fat (g)	2.8	2.8	2.7	2.5
Saturated fat (% total energy)	11.9	12.0	11.9	11.8
Saturated fat (% food energy)	13.7	13.8	13.8	13.7
Total sugars (g)	12.3	12.1	11.8	10.7
Non-milk extrinsic sugars (g)	10.6	10.5	10.2	9.2
Non-milk extrinsic sugars (% total energy)	18.8	18.8	18.7	18.1
Non-milk extrinsic sugars (% food energy)	21.8	21.6	21.6	20.8
Non-starch polysaccharide fibre (g)	1.0	0.9	0.9	0.9
Sodium (g)	0.22	0.23	0.23	0.21
Salt (g)	0.55	0.58	0.58	0.53

Notes: 'Total energy' implies the complete diet; 'food energy' implies the complete diet minus alcohol.
Sodium does not include sodium from table salt.
Consumption assumed from purchase data.

Source: Office for National Statistics (2006) *Expenditure and Food Survey 2004/05*. The Stationery Office: London

Table 1.5 Consumption of selected foods, 1942-2004/05, United Kingdom

	1942	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2004/05
<i>Litres per person per week</i>														
Liquid wholemilk	1.98	2.34	2.72	2.73	2.75	2.76	2.63	2.71	2.37	1.90	1.24	0.82	0.68	0.49
Skimmed milks								0.01	0.02	0.25	0.73	1.12	1.16	1.13
Yoghurt								0.03	0.06	0.08	0.11	0.15	0.16	0.19
Total milk and cream	2.14	2.52	2.94	2.89	2.92	2.95	2.89	2.98	2.68	2.41	2.23	2.24	2.16	1.98
<i>Number per person per week</i>														
Eggs	1.4	3.0	3.5	4.2	4.6	4.8	4.7	3.8	3.4	2.9	2.0	1.7	1.6	1.6
<i>Grams per person per week</i>														
Natural cheese				70	75	81	92	99	103	103	105	98	97	96
Processed cheese				10	11	10	10	8	6	7	9	10	12	14
Total cheese	101	71	72	80	86	91	102	107	110	111	113	108	109	110
Oranges and other citrus fruits		75	93	108	124	122	142	143	153	119	136	136	137	145
Apples and pears			201	190	230	231	234	219	260	235	249	233	235	220
Bananas			37	83	96	101	85	85	91	83	130	184	214	217
Total fresh fruit	197	318	409	457	522	533	543	511	608	540	624	693	765	805
Fruit juice (ml)			7	8	14	19	17	42	97	165	225	272	332	280
Total other fruit			97	156	162	173	163	185	152	120	113	103	92	83
Total fruit	197	318	513	621	698	725	723	738	857	825	962	1,068	1,189	1,168
Fresh green vegetables	438	517	392	415	430	407	372	341	366	287	287	233	246	225
Other fresh vegetables	450	442	433	415	427	406	394	405	466	461	475	486	506	536
Total fresh vegetables (excludes potatoes)	888	959	825	830	857	813	766	746	832	748	762	719	752	761
All processed vegetables (includes frozen & canned)	136	188	214	224	260	304	382	506	554	625	638	697	671	597
Fresh potatoes	1,877	1,863	1,759	1,698	1,588	1,509	1,470	1,257	1,176	1,175	1,008	810	727	570
Bread	1,718	1,752	1,637	1,563	1,289	1,151	1,080	1,029	949	947	859	818	782	695
Flour	181	176	206	243	192	173	161	156	169	121	95	60	69	55
Cakes, buns and pastries			190	158	179	191	161	173	153	141	146	173	187	164
Biscuits (includes crispbreads)	74	82	104	145	161	165	163	211	205	198	199	181	189	165
Breakfast cereals	23	26	40	48	51	56	78	82	94	109	121	127	135	131
Total cereals (excludes breads)	593	672	678	706	711	729	711	649	655	638	692	775	846	827
Bread and cereal products	2,310	2,424	2,315	2,269	2,000	1,880	1,791	1,678	1,604	1,585	1,551	1,593	1,628	1,522
Sugar	238	259	287	500	503	498	480	394	392	294	211	169	130	99
Preserves	140	155	179	116	91	85	73	76	63	58	52	43	37	35
Tea			61	79	79	74	73	66	62	53	46	42	36	31
Coffee			6	10	11	12	16	19	20	21	19	18	16	16
Total beverages	77	100	101	101	98	102	103	99	90	84	74	70	56	
Fresh white fish			89	90	67	64	50	37	32	28	24	20	15	18
Fresh fatty fish			16	11	9	7	6	5	7	7	8	10	14	16
Shell fish			3	3	3	2	1	2	3	4	5	6	6	11
Takeaway fish			29	23	24	28	29	18	20	16	15	14	7	11
Total fish and fish products	187	261	188	169	166	164	152	128	137	140	147	147	144	158
Salt					26	25	28	25	32	27	15	13	9	9
Butter	56	61	129	127	161	173	170	147	106	74	42	34	37	35
Margarine	118	119	112	133	104	86	81	78	115	113	96	43	22	11
Low fat spreads									14	27	27	22	23	
Reduced fat spreads											20	48	50	44
Lard	50	43	56	62	58	60	63	62	57	45	25	14	7	4
Total fats	245	245	329	337	339	336	339	315	324	293	265	227	193	182
Beef and veal	230	179	228	265	248	229	221	215	208	167	134	109	113	123
Mutton and lamb	150	173	154	186	188	167	149	119	128	92	82	54	54	50
Pork	11	40	9	66	57	79	80	79	118	98	84	71	68	56
Bacon and ham	112	100	128	172	175	179	177	137	145	132	115	111	109	113
Poultry			10	14	50	100	143	160	170	177	204	217	235	246
Sausages	113	110	114	99	103	106	106	99	100	92	74	68	66	67
Total meat and meat products	746	746	846	976	1,017	1,066	1,121	1,055	1,160	1,069	999	986	1,014	1,049
Soft drinks, low calorie (ml)												504	516	441
Soft drinks, not low calorie (ml)												1,150	1,184	1,391
Total soft drinks (ml)												1,654	1,699	1,832
Chocolate bars												87	113	90
Confectionery												125	151	131

Notes: Men and women aged 16 and above. Figures differ from actual food and drink consumption for a number of reasons e.g. food may be discarded during food preparation (e.g. vegetable peelings), food may be left on the plate at the end of a meal or food may become inedible before it can be consumed and is therefore thrown away.

Data for 1942 to 1970 from non-adjusted National Food Survey (GB only). Data for 1975 to 1995 from adjusted National Food Survey (GB only). Data for 1996 to 2000 from adjusted National Food Survey (UK). Data for 2004/05 from Expenditure and Food Survey (UK). Because of the discontinuity between datasets, these trends need to be interpreted with caution.

Sources: Office for National Statistics (2006) Expenditure and Food Survey 2004/05. The Stationery Office: London, and previous editions.

Department for Environment, Food and Rural Affairs (2001) National Food Survey 2000. The Stationery Office: London, and previous editions.

Fig 1.5a Consumption of fats, 1942-2004/05, United Kingdom

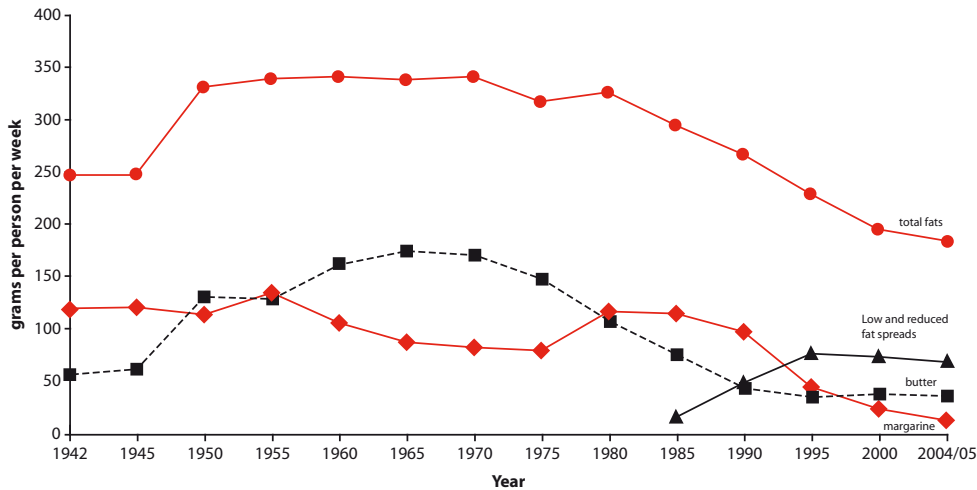


Fig 1.5b Consumption of milk and milk products, 1942-2004/05, United Kingdom

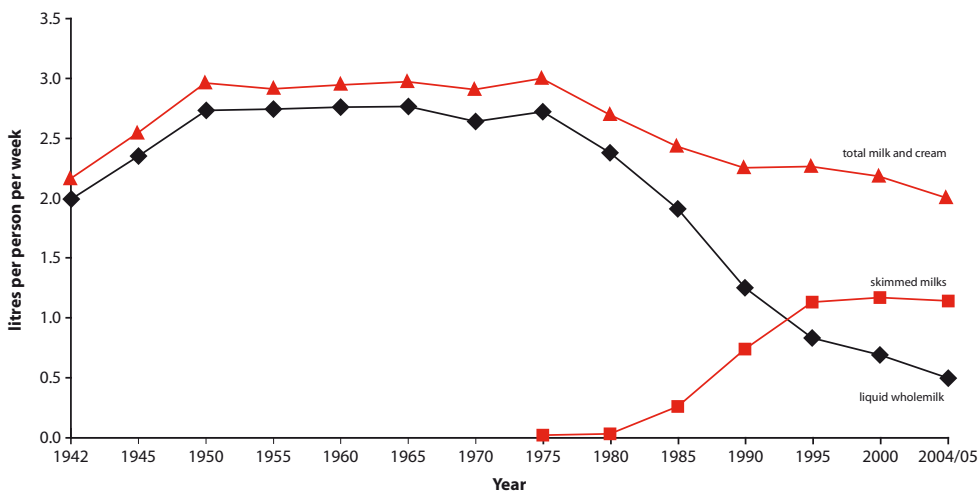


Fig 1.5c Consumption of fresh fruit and vegetables, 1942-2004/05, United Kingdom

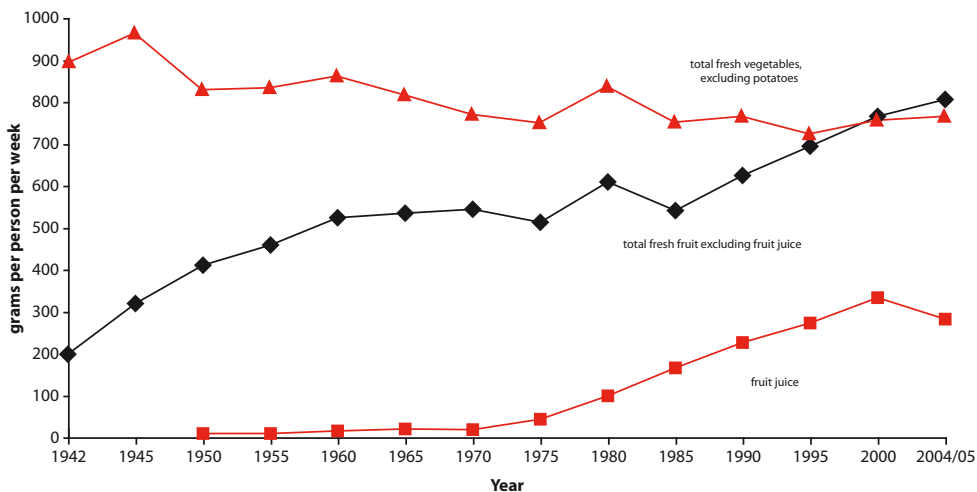


Fig 1.5d Consumption of soft drinks, 1992-2004/05, United Kingdom

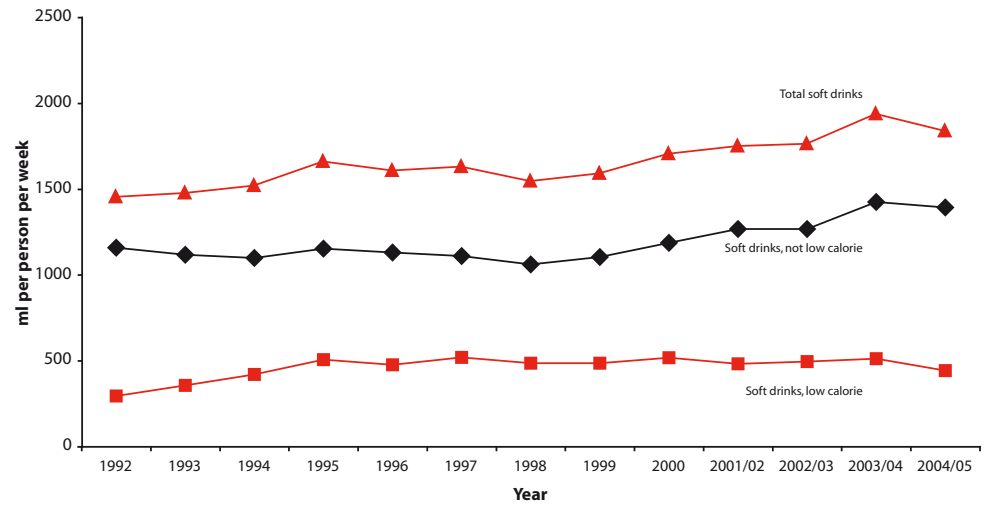


Fig 1.5e Consumption of confectionery, 1992-2004/05, United Kingdom

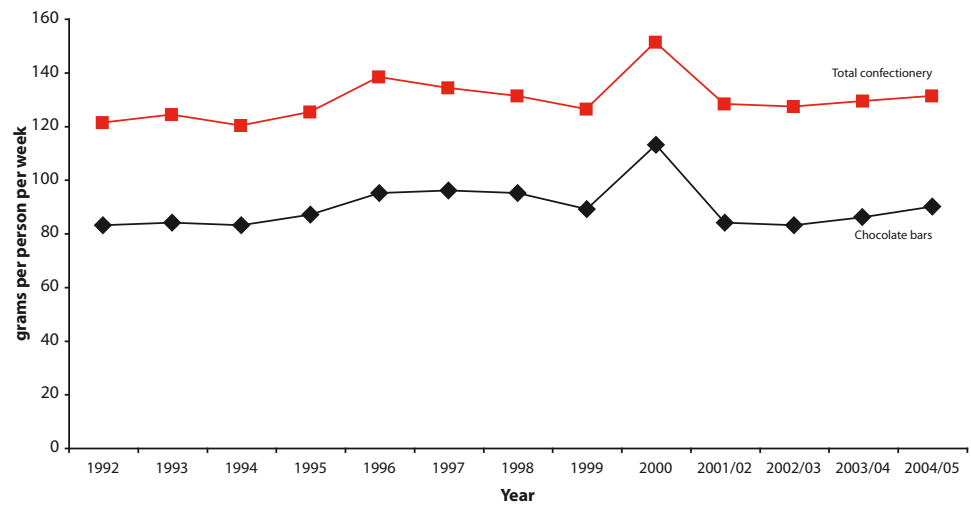


Table 1.6 Consumption of selected nutrients and fruit and vegetables by sex and age, young people aged 4-18, 1997, Great Britain

	4-6	7-10	11-14	15-18	All	Target				Source
						4-6	7-10	11-14	15-18	
BOYS										
Energy (kcal/d)	1,520	1,777	1,968	2,285	1,905	1,715	1,970	2,220	2,755	EAR*
Total fat (g/d)	60.1	69.8	77.2	89.0	74.7					
Total fat (% food energy)	35.5	35.2	35.2	35.9	35.4	35.0	35.0	35.0	35.0	DRV*
Saturated fat (g/d)	25.1	28.3	30.3	34.7	29.8					
Saturated fat (% food energy)	14.8	14.3	13.8	13.9	14.2	11.0	11.0	11.0	11.0	DRV*
Monounsaturated fatty acids (g/d)	19.4	22.8	25.6	29.6	24.6					
Monounsaturated fatty acids (% food energy)	11.5	11.5	11.7	12.0	11.7	13.0	13.0	13.0	13.0	DRV*
Polyunsaturated fatty acids (g/d)	9.3	11.3	13.3	15.5	12.5					
Polyunsaturated fatty acids (% food energy)	5.5	5.7	6.1	6.3	5.9	6.5	6.5	6.5	6.5	DRV*
n-3 fatty acids (g/d)	1.3	1.6	2.0	2.2	1.8					
n-3 fatty acids (% food energy)	0.8	0.8	0.9	0.9	0.8	0.2	0.2	0.2	0.2	DRV individual minimum*
Trans fatty acids (g/d)	2.3	2.7	2.9	3.5	2.9					
Trans fatty acids (% food energy)	1.3	1.4	1.3	1.4	1.4	2.0	2.0	2.0	2.0	DRV*
Protein (g/d)	49.0	54.8	64.0	76.5	61.6	19.7	28.3	42.1	55.2	RNI*
Total carbohydrate (g/d)	209	248	271	301	260					
Total carbohydrate (% food energy)	51.6	52.4	51.7	50.5	51.6	50.0	50.0	50.0	50.0	DRV*
Non-milk extrinsic sugars (g/d)	66	83	90	97	85					
Non-milk extrinsic sugars (% food energy)	16.2	17.5	16.9	15.8	16.7	11.0	11.0	11.0	11.0	DRV*
Non-starch polysaccharide fibre (g/d)	9.1	10.3	11.6	13.3	11.2					
Sodium from food sources only (g/d)	2.1	2.4	2.7	3.3	2.6	1.2	2.0	2.4	2.4	GDA†
Salt from food sources only (g/d)	5.2	6.0	6.7	8.2	6.6	3.0	5.0	6.0	6.0	GDA†
Calcium (mg/d)	706	741	799	878	784	450	550	1,000	1,000	RNI*
Iron (mg/d)	8.3	9.8	10.8	12.6	10.5	6.1	8.7	11.3	11.3	RNI*
Folate (µg/d)	192	213	247	309	242	100	150	200	200	RNI*
Fruit and vegetables (g/d)	123	120	115	137	124	~300	~350	~400	~400	5 A DAY benchmark‡
Unweighted base	184	256	237	179	856					
GIRLS										
Energy (kcal/d)	1,397	1,598	1,672	1,622	1,582	1,545	1,740	1,845	2,110	EAR*
Total fat (g/d)	55.9	63.8	67.2	64.0	63.1					
Total fat (% food energy)	35.9	35.9	36.1	35.9	35.9	35.0	35.0	35.0	35.0	DRV*
Saturated fat (g/d)	23.8	25.7	26.2	24.7	25.2					
Saturated fat (% food energy)	15.3	14.5	14.0	13.8	14.3	11.0	11.0	11.0	11.0	DRV*
Monounsaturated fatty acids (g/d)	17.8	20.9	22.4	20.9	20.6					
Monounsaturated fatty acids (% food energy)	11.5	11.8	12.0	11.7	11.8	13.0	13.0	13.0	13.0	DRV*
Polyunsaturated fatty acids (g/d)	8.4	10.5	11.8	11.8	10.7					
Polyunsaturated fatty acids (% food energy)	5.4	5.9	6.4	6.7	6.1	6.5	6.5	6.5	6.5	DRV*
n-3 fatty acids (g/d)	1.2	1.4	1.7	1.6	1.5					
n-3 fatty acids (% food energy)	0.7	0.8	0.9	0.9	0.8	0.2	0.2	0.2	0.2	DRV individual minimum*
Trans fatty acids (g/d)	2.1	2.5	2.5	2.3	2.4					
Trans fatty acids (% food energy)	1.3	1.4	1.3	1.3	1.3	2.0	2.0	2.0	2.0	DRV*
Protein (g/d)	44.5	51.2	52.9	54.8	51.2	19.7	28.3	41.2	55.2	RNI*
Total carbohydrate (g/d)	191	218	228	214	214					
Total carbohydrate (% food energy)	51.4	51.3	51.2	50.6	51.1	50.0	50.0	50.0	50.0	DRV*
Non-milk extrinsic sugars (g/d)	66	72	73	66	69					
Non-milk extrinsic sugars (% food energy)	17.6	16.7	16.2	15.3	16.4	11.0	11.0	11.0	11.0	DRV*
Non-starch polysaccharide fibre (g/d)	8.0	9.8	10.2	10.6	9.7					
Sodium from food sources only (g/d)	1.9	2.2	2.3	2.3	2.2	1.2	2.0	2.4	2.4	GDA†
Salt from food sources only (g/d)	4.6	5.4	5.7	5.7	5.4	3.0	5.0	6.0	6.0	GDA†
Calcium (mg/d)	657	656	641	653	652	450	550	800	800	RNI*
Iron (mg/d)	7.4	8.5	9.1	8.9	8.5	6.1	8.7	14.8	14.8	RNI*
Folate (µg/d)	171	190	210	215	197	100	150	200	200	RNI*
Fruit and vegetables (g/d)	123	137	117	154	134	~300	~350	~400	~400	5 A DAY benchmark‡
Unweighted base	172	225	238	210	845					

Notes: Estimates derived from 7-day dietary record. All absolute levels are subject to under-reporting, although the exact level of under-reporting is not clear. Sodium and salt levels do not include salt added during cooking or at the table. Salt = sodium x 2.5. Data are weighted for non-response. DRV = Dietary Reference Value; EAR = Estimated Average Requirement; RNI = Reference Nutrient Intake; GDA = Guideline Daily Amount. All targets are for populations, unless otherwise stated. Targets that are relative to energy intake are for an adult diet, which is recommended to begin between the ages of 2 and 5 years. There are no specific recommendations for NSP fibre intake for young people. However, COMA recommend that NSP fibre intake should be proportionate to body weight, and that the adult population target is 18g/day. Young people are recommended to eat five portions of fruit and vegetables a day. One portion for an adult is approximately 80g - this amount has been lowered in line with reduced energy requirements to produce estimated targets.

Sources: Office for National Statistics (2000) The National Diet and Nutrition Survey: young people aged 4 to 18 years. HMSO: London
 * Department of Health (1991) Dietary reference values for food energy and nutrients for the United Kingdom. HMSO: London
 † Scientific Advisory Committee on Nutrition (2003) Salt and health. HMSO: London
 ‡ Department of Health (2004) Choosing health: making healthy choices easier. DoH: London

Table 1.7 Consumption of fruit and vegetables by sex and age, young people aged 5-15, 2001-2004, England

MALES	AGE (YEARS)	5	6	7	8	9	10	11	12	13	14	15	All ages	
<i>Mean number of portions per day</i>	2001	2.4	2.5	2.1	2.3	2.3	2.4	2.5	2.1	2.3	2.9	2.7	2.4	
	2002	2.6	2.4	2.5	2.4	2.4	2.4	2.5	2.7	2.5	2.7	2.5	2.5	
	2003	2.7	2.2	2.4	2.2	2.6	2.6	2.3	2.3	2.2	2.4	2.3	2.4	
	2004	2.8	2.7	2.4	2.7	2.9	2.5	2.8	2.9	2.4	2.7	3.2	2.7	
<i>% consuming 5 or more portions per day</i>	2001	9	11	9	8	11	13	12	7	13	15	18	11	
	2002	12	10	10	10	9	10	12	15	12	15	14	12	
	2003	9	4	11	6	11	14	10	10	9	11	11	10	
	2004	9	10	8	7	14	10	13	20	19	8	23	13	
<i>Unweighted base</i>	2001	139	137	128	138	143	127	143	144	144	124	131	1,498	
	2002	287	304	336	317	296	331	322	299	290	309	275	3,367	
	2003	105	130	122	119	110	128	110	128	117	116	116	1,301	
	2004	56	63	52	61	63	61	43	61	59	52	50	621	
FEMALES	AGE (YEARS)	5	6	7	8	9	10	11	12	13	14	15	All ages	
	<i>Mean number of portions per day</i>	2001	2.4	2.4	2.2	2.7	2.4	2.6	2.8	2.9	2.9	2.6	2.8	2.6
		2002	2.6	2.5	2.7	2.5	2.6	2.6	2.7	2.6	2.5	2.9	2.8	2.6
		2003	2.5	2.6	2.4	2.6	2.2	2.3	2.5	2.9	2.6	2.9	2.7	2.6
2004		2.8	2.9	2.1	3.1	2.7	2.6	2.6	3.0	3.0	2.5	2.4	2.7	
<i>% consuming 5 or more portions per day</i>	2001	8	8	7	12	9	12	14	13	12	9	13	11	
	2002	11	9	13	11	10	11	13	13	11	15	14	12	
	2003	13	11	6	14	5	6	12	16	12	19	15	12	
	2004	10	9	2	18	9	19	6	19	19	6	12	12	
<i>Unweighted base</i>	2001	147	125	146	154	146	160	149	128	132	131	142	1,560	
	2002	301	296	298	300	300	281	310	304	296	280	270	3,236	
	2003	123	112	118	118	126	128	122	128	128	127	112	1,342	
	2004	39	48	44	66	35	52	45	57	53	56	56	552	

Notes: Data is weighted for child selection, but not for non-response. Comparisons over time should be made with caution, due to the relatively low sample size for the 2004 results.

Source: Department of Health (2005) Health Survey for England 2004. The Stationery Office: London.

Table 1.8 Consumption of fruit, vegetables, sweets, soft drinks, crisps and chips by sex, age and country, school children aged 11-15, 2001/02, Great Britain

	BOYS			GIRLS		
	11 years old	13 years old	15 years old	11 years old	13 years old	15 years old
ENGLAND						
<i>Consume at least once a day</i>	%	%	%	%	%	%
Fruit	29	24	21	31	28	28
Vegetables	26	27	26	30	32	33
Sweets	30	33	33	30	32	33
Soft drinks	36	40	45	37	35	36
Crisps	NA	NA	NA	NA	NA	NA
Chips	NA	NA	NA	NA	NA	NA
<i>Unweighted base</i>	1,101	1,002	795	1,104	1,051	963
SCOTLAND						
<i>Consume at least once a day</i>	%	%	%	%	%	%
Fruit	37	31	25	45	33	29
Vegetables	29	33	30	39	38	30
Sweets	46	49	46	42	49	39
Soft drinks	47	51	54	41	45	45
Crisps	43	40	37	45	39	36
Chips	22	23	21	19	17	13
<i>Unweighted base</i>	924	731	577	809	773	571
WALES						
<i>Consume at least once a day</i>	%	%	%	%	%	%
Fruit	23	18	19	31	24	24
Vegetables	19	18	22	22	21	26
Sweets	24	27	29	25	28	29
Soft drinks	33	39	41	32	39	35
Crisps	NA	NA	NA	NA	NA	NA
Chips	NA	NA	NA	NA	NA	NA
<i>Unweighted base</i>	669	713	601	670	647	559

Notes: Bases given are for consumption of soft drinks; other bases are very similar.
NA: Data not available.

Source: World Health Organization (2004). *Young people's health in context. Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/02 survey*. WHO: Geneva.
http://www.euro.who.int/eprise/main/who/informationresources/publications/catalogue/20040518_1
<http://www.hbsc.org>

Table 1.9 Consumption of energy, fat, saturated fat, sugar, sodium and fibre from school meals in primary and secondary schools, by sex, children aged 4-18 years, 2003 and 2005, England

Nutrient per meal	CHILDREN (AGED 4-12 YEARS)		BOYS (AGED 11-18 YEARS)		GIRLS (AGED 11-18 YEARS)	
	Mean	CWT guideline	Mean	CWT guideline	Mean	CWT guideline
Energy (kcal)	469	489	678	705	596	574
Fat (g)	18.8		32.1		27.9	
<i>Fat (% energy)</i>	35.2	<35.0	41.5	<35.0	40.8	<35.0
Saturated fat (g)	6.6		10.5		9.4	
<i>Saturated fat (% energy)</i>	12.3	<11.0	13.4	<11.0	13.7	<11.0
Non-milk extrinsic sugars (g)	14.1		23.4		21.2	
<i>Non-milk extrinsic sugars (% energy)</i>	11.1	<11.0	13.4	<11.0	13.6	<11.0
Sodium (mg)	699	n/a	1059	n/a	906	n/a
Non-starch polysaccharide fibre (g)	4.1	3.9	4.0	5.6	3.7	4.6
<i>Unweighted base</i>	3,035		2,534		3,161	

Notes: CWT guidelines refer to the Caroline Walker Trust guidelines for school meals. The guidelines provide figures for the recommended nutrient content of an average school meal provided for children over a one-week period. Data comes from a nationally representative sample of 151 primary schools (2005) and 79 secondary schools (2003) in England.

Sources: Nelson M, Nicholas J, Suleiman S, Davies O, Prior G, Hall L, Wreford S, Poulter J (2006). *School meals in primary schools in England*. Department for Education and Skills: London
Nelson M, Bradbury J, Poulter J, McGee A, Msebele S, Jarvis L (2004). *School meals in secondary schools in England*. Department for Education and Skills: London

Table 1.10 *Primary and secondary school pupils' lunch choices and availability of foods in school canteens on 4 or 5 days per week, selected food categories, 2003 and 2005, England*

PRIMARY SCHOOLS	% of all foods chosen by children	% of schools offering foods on 4 or 5 days per week	% of schools not offering foods at any time
<i>Food categories</i>			
Vegetables and salads	14	99	1
Pasta, rice, bread, other cereals	10	80	1
Desserts, cakes, biscuits, ice cream	19	99	0
Fruit	3	97	0
Milk and milk products	5	87	3
Higher fat main dishes	10	70	1
Potatoes not cooked in oil or fat	5	48	4
Water	6	90	3
Lower fat main dishes	6	64	1
Soft drinks	7	52	33
Chips and other potatoes cooked in oil or fat	10	42	3
Fruit juice	1	19	58
Baked beans	3	9	13
Butter, margarine	0	14	66
Eggs and egg dishes	0	1	55
Savoury snacks, nuts and seeds	0	4	90
Sugar, preserves, confectionery	0	1	76
Sandwiches	1	36	46
<i>Unweighted base</i>	36,131	151	151
SECONDARY SCHOOLS			
<i>Food categories</i>			
Vegetables and salads	2	70	0
Potatoes (not fried), plain bread and other starches	6	91	0
Desserts	3	70	6
Cakes and muffins	9	95	0
Fruit (fresh, tinned, dried)	1	91	3
Milk (including flavoured)	2	73	18
Main dishes (high fat)	18	86	0
Main dishes (lower fat)	6	61	0
Soft drinks	17	92	4
Chips and potatoes cooked in oil	18	76	1
Fruit juice	1	58	28
Baked beans	4	81	5
Crisps and savoury snacks	4	75	16
Sweets and chocolates	3	65	22
Sandwiches, filled rolls and baguettes	5	92	1
<i>Unweighted base</i>	17,523	79	79

Notes: Main dishes (high fat) refer to meals where 50% of energy or more is derived from fat (e.g. burgers, pizza, sausages, chicken nuggets). Main dishes (lower fat) refer to meals where less than 50% of energy is derived from fat (e.g. pasta dishes, beef stew, chicken curry). Data comes from a nationally representative sample of 151 primary schools (2005) and 79 secondary schools (2003) in England.

Sources: Nelson M, Nicholas J, Suleiman S, Davies O, Prior G, Hall L, Wreford S, Poulter J (2006). *School meals in primary schools in England*. Department for Education and Skills: London
Nelson M, Bradbury J, Poulter J, McGee A, Msebele S, Jarvis L (2004). *School meals in secondary schools in England*. Department for Education and Skills: London

Fig 1.10a Primary school pupils' lunch choices, selected food categories, 2005, England

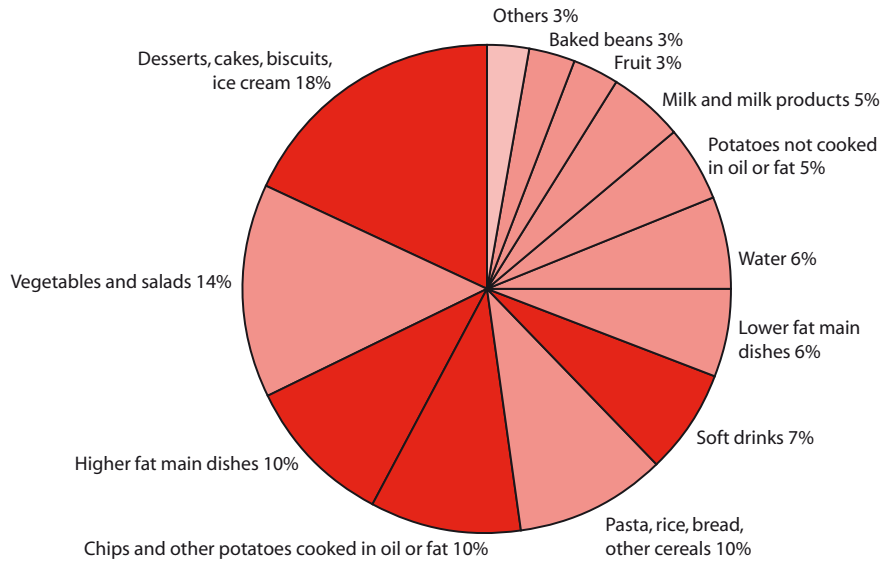


Fig 1.10b Secondary school pupils' lunch choices, selected food categories, 2003, England

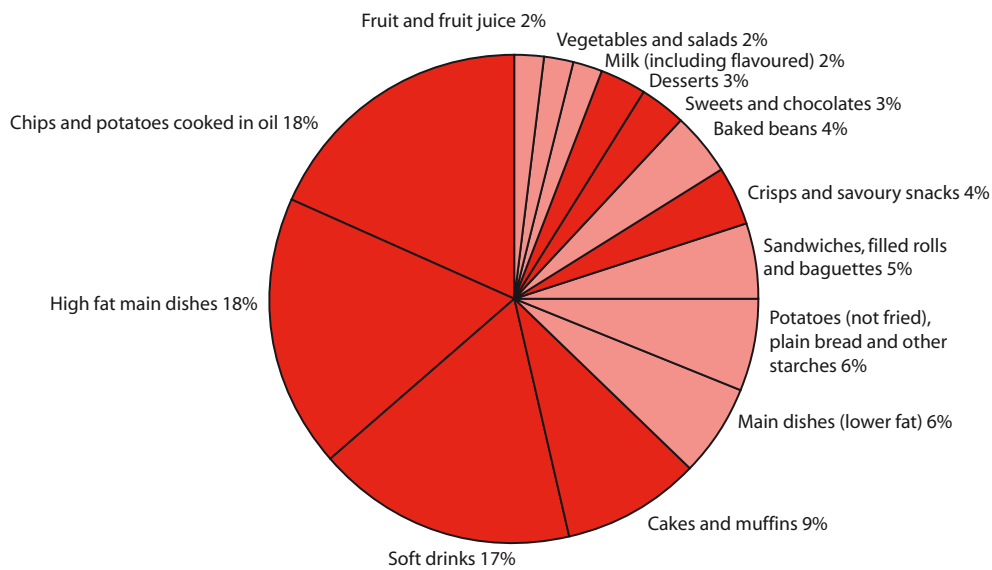


Table 1.11 Consumption of energy, fat, saturated fat, sugar, salt, fibre and fruit and vegetables, by country of the United Kingdom, and by Government Office Region in England, 2002 - 2005, United Kingdom

Consumption per person per day	UK country		Government Office Region in England										South West
	ENGLAND	SCOTLAND	WALES	NORTHERN IRELAND	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	
Energy (kcal/day)	2,320	2,179	2,326	2,258	2,372	2,445	2,262	2,361	2,266	2,309	2,092	2,274	2,369
Energy (MJ/day)	9.8	9.2	9.8	9.5	10.0	10.3	9.5	9.9	9.5	9.7	8.8	9.6	10.0
Total fat (g)	94.0	87.0	96.0	91.0	97	99	91	95	91	94	84	93	97
Total fat (% food energy)	37.6	37.3	38.3	37.4	38.2	37.9	37.7	37.5	37.6	37.9	37.3	38.2	38.0
Saturated fat (g)	36.7	34.4	37.6	36.2	38.5	38.3	35.8	37.5	35.6	36.9	31.2	36.6	38.3
Saturated fat (% food energy)	14.7	14.7	15.0	14.8	15.1	14.6	14.8	14.8	14.6	14.8	13.9	15.0	15.1
Total sugars (g)	138	130	138	132	140	137	134	142	133	140	120	136	143
Non-milk extrinsic sugars (g)	93	89	95	89	98	93	91	96	91	94	79	90	94
Non-milk extrinsic sugars (% food energy)	15.5	15.8	15.9	15.2	16.0	14.8	15.7	15.8	15.6	15.7	14.6	15.4	15.4
Non-starch polysaccharide fibre (g)	14.5	13.3	14.1	14.1	14.0	14.8	14.0	14.7	14.1	14.8	13.5	14.5	15.3
Sodium (g/day)	3.1	2.7	3.2	3.0	3.2	3.2	3.0	3.1	2.9	3.0	2.5	3.0	3.1
Salt (g/day)	7.7	6.8	7.9	7.6	8.0	8.2	7.4	7.9	7.4	7.6	6.4	7.6	7.7
Fruit (g/day)	174	151	151	133	138	156	158	169	152	194	183	194	194
Vegetables - excluding potatoes (g/day)	161	128	152	119	143	142	150	165	160	171	162	170	176

Notes: Sodium intake does not include sodium from table salt. Salt intake = sodium x 2.52. Consumption assumed from purchase data.

Source: Office for National Statistics (2006) Expenditure and Food Survey 2004/05. The Stationery Office: London.

Table 1.12 Consumption of energy, fat, saturated fat, sugar, salt, fibre and fruit and vegetables, by social class, 2002 - 2005, United Kingdom

	Large employer, higher managerial & professional & professional	Small employer & own account worker	Higher professional	Intermediate	Lower professional, managerial, higher technical	Lower supervisory & technical occupations & supervisory	Never worked & long term unemployed	Routine	Semi-routine
<i>Consumption per person per day</i>									
Energy (kcal/day)	2,217	2,262	2,224	2,147	2,212	2,312	1,987	2,258	2,246
Energy (MJ/day)	9.3	9.5	9.4	9.0	9.3	9.7	8.3	9.5	9.4
Total fat (g)	88	93	88	85	89	94	83	92	91
Total fat (% food energy)	37.5	38.3	37.1	37.1	37.5	37.9	38.4	37.8	37.6
Saturated fat (g)	34.9	36.5	34.7	33.1	34.5	36.3	30.3	35.2	35.2
Saturated fat (% food energy)	14.8	15.1	14.7	14.4	14.6	14.7	14.1	14.5	14.5
Total sugars (g)	130	131	131	128	129	134	114	133	132
Non-milk extrinsic sugars (g)	85	89	84	87	86	93	82	93	93
Non-milk extrinsic sugars (% food energy)	15.1	15.3	14.9	15.7	15.2	15.7	15.9	16.0	15.9
Non-starch polysaccharide fibre (g)	14.3	13.7	14.8	13.3	14.2	13.9	10.9	13.4	13.2
Sodium (g/day)	3.0	3.0	2.9	2.9	3.0	3.1	2.5	3.0	2.9
Salt (g/day)	7.5	7.4	7.4	7.3	7.5	7.9	6.2	7.6	7.4
Fruit (g/day)	200	153	218	153	183	130	103	121	126
Vegetables - excluding potatoes (g/day)	161	152	171	144	159	144	111	138	134

Notes: Sodium intake does not include sodium from table salt. Salt intake = sodium x 2.52. Consumption assumed from purchase data. Social class categorisation is dependent upon the occupation of the Household Reference Person.

Source: Office for National Statistics (2006) Expenditure and Food Survey 2004/05. The Stationery Office: London.

Table 1.13 Consumption of energy, fat, saturated fat, sugar, salt, fibre and fruit and vegetables, by income quintile, 2002 - 2005, United Kingdom

<i>Consumption per person per day</i>	Quintile 1 (Lowest income)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (Highest income)
Energy (kcal/day)	2,270	2,337	2,256	2,237	2,245
Energy (MJ/day)	9.5	9.8	9.5	9.4	9.4
Total fat (g)	94	96	92	90	90
Total fat (% food energy)	38.1	38.1	37.8	37.7	37.8
Saturated fat (g)	37.1	37.8	35.9	35.1	35.4
Saturated fat (% food energy)	15.1	15.0	14.8	14.7	14.8
Total sugars (g)	138	142	135	132	131
Non-milk extrinsic sugars (g)	93	96	92	90	87
Non-milk extrinsic sugars (% food energy)	15.8	15.9	15.8	15.6	15.2
Non-starch polysaccharide fibre (g)	13.7	14.4	13.8	13.9	14.3
Sodium (g/day)	2.9	3.0	3.0	3.0	3.0
Salt (g/day)	7.4	7.5	7.5	7.5	7.6
Fruit (g/day)	156	167	159	163	193
Vegetables - excluding potatoes (g/day)	152	162	152	152	163

Notes: Sodium intake does not include sodium from table salt. Salt intake = sodium x 2.52. Consumption assumed from purchase data.

Source: Office for National Statistics (2006) Expenditure and Food Survey 2004/05. The Stationery Office : London.

Table 1.14 Consumption of energy, fat, saturated fat, sugar, salt, fibre and fruit and vegetables, by ethnic group, 2002 - 2005, United Kingdom

<i>Consumption per person per day</i>	Asian /Asian British	Black /Black British	Chinese and others	Mixed	White
Energy (kcal/day)	2,132	1,930	1,909	2,063	2,295
Energy (MJ/day)	9.0	8.1	8.0	8.7	9.6
Total fat (g)	85	76	74	84	93
<i>Total fat (% food energy)</i>	36.3	35.9	35.3	37.4	37.8
Saturated fat (g)	28.0	24.7	25.2	30.6	36.8
<i>Saturated fat (% food energy)</i>	11.9	11.7	12.0	13.7	15.0
Total sugars (g)	111	113	97	131	137
Non-milk extrinsic sugars (g)	71	79	64	92	93
<i>Non-milk extrinsic sugars (% food energy)</i>	12.7	15.6	12.7	17.1	15.7
Non-starch polysaccharide fibre (g)	13.1	11.9	12.2	12.4	14.3
Sodium (g/day)	1.7	2.0	2.0	2.4	3.1
Salt (g/day)	4.4	4.9	5.0	6.1	7.7
Fruit (g/day)	171	178	156	193	171
Vegetables - excluding potatoes (g/day)	162	146	162	156	157

Notes: Sodium intake does not include sodium from table salt. Salt intake = sodium x 2.52.
Consumption assumed from purchase data.

Source: Office for National Statistics (2006) *Expenditure and Food Survey 2004/05*. The Stationery Office : London.

Table 1.15 Total energy available from fat and availability of fruit and vegetables by country, 2003, selected European countries

	% energy from fat	fruit and veg per person per year (kg)		% energy from fat	fruit and veg per person per year (kg)
Albania	27.1	264.4	Lithuania	27.9	168.5
Armenia	19.6	237.6	Luxembourg	40.3	199.5
Austria	38.8	227.6	FYR Macedonia	29.6	235.7
Azerbaijan	14.0	192.0	Malta	28.1	243.1
Belarus	29.5	155.0	Netherlands	36.0	255.5
Belgium	40.3	199.5	Norway	37.2	190.7
Bosnia and Herzegovina	18.0	225.3	Poland	29.8	147.9
Bulgaria	30.1	190.1	Portugal	34.2	297.2
Croatia	28.7	199.8	Republic of Moldova	18.4	153.9
Cyprus	36.3	278.5	Romania	26.3	244.3
Czech Republic	31.2	151.4	Russia	24.7	144.8
Denmark	35.9	248.7	Serbia	39.5	224.2
Estonia	27.4	174.4	Slovakia	33.5	129.7
Finland	36.2	162.6	Slovenia	32.4	215.4
France	41.8	238.4	Spain	41.2	256.0
Georgia	18.1	142.4	Sweden	35.5	193.6
Germany	36.7	203.7	Switzerland	40.1	201.1
Greece	35.6	422.7	Tajikistan	19.1	84.5
Hungary *	38.0	176.3	Turkey	24.7	338.1
Iceland *	36.2	167.7	Turkmenistan	23.0	136.1
Ireland *	32.6	182.9	Ukraine	24.1	152.4
Israel *	34.1	336.4	United Kingdom	35.1	207.4
Italy	38.2	309.3	Uzbekistan	25.0	146.4
Kazakhstan	25.9	146.8	Europe average	31.9	233.2
Kyrgyzstan	15.6	158.4	EU-15 average	37.9	242.5
Latvia	33.1	153.2	EU-25 average	36.9	232.6

Notes: * data for these countries are for 2002. Fruit and vegetables do not include potatoes. Amount available refers to fruit and vegetables produced nationally, plus imports, minus exports.

Source: World Health Organization (2005) *European Health for All statistical database*.
<http://www.euro.who.int/bfad> (11 July 2006)

Fig 1.15a Percentage of total energy available from fat by country, 2003, selected European countries

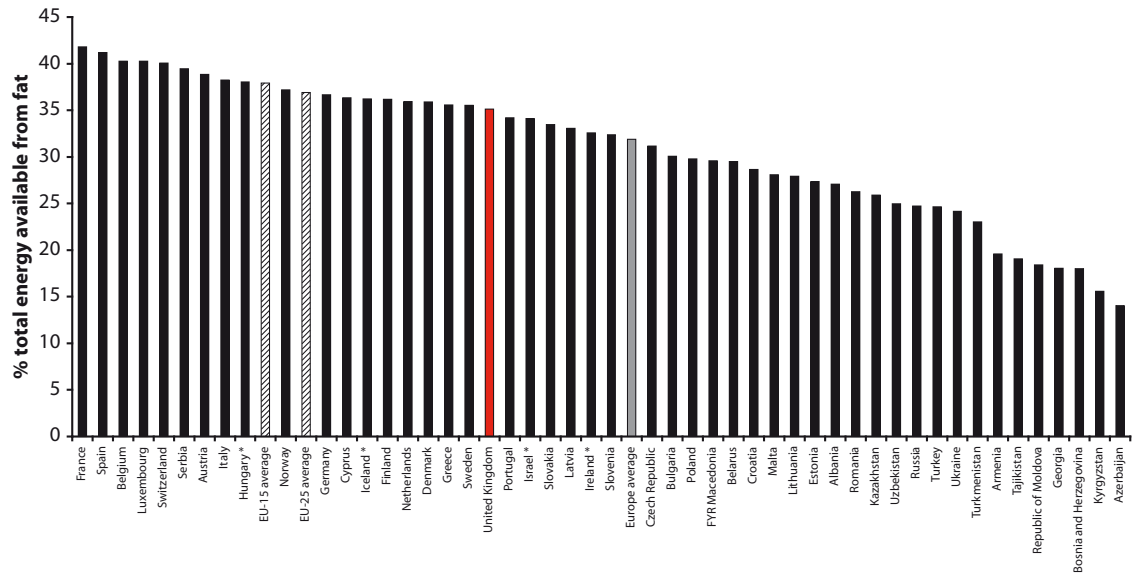
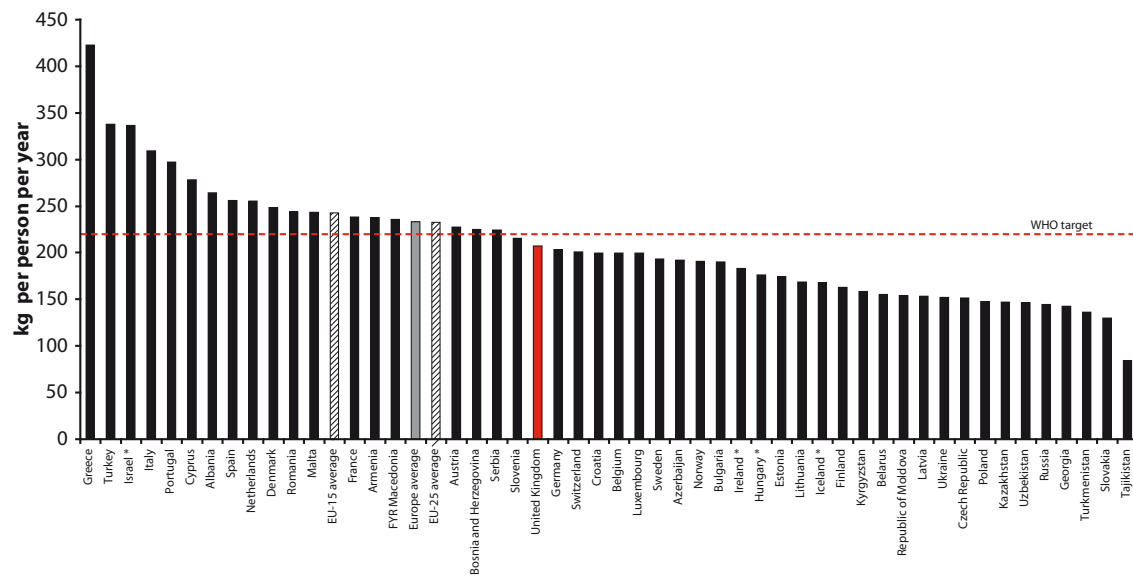


Fig 1.15b Availability of fruit and vegetables, 2003, selected European countries, with WHO target



Notes: WHO international target is 400g fruit and vegetable consumption per person per day. Target of 219 kg of available fruit and vegetables per person per year has been adjusted for wastage (see source for method).

Table 1.16 Frequency of preparing meals from raw or fresh ingredients, and sitting down for main meal at home with all household members, adults aged 16 and over, 2005, United Kingdom

<i>Frequency of behaviour</i>	Preparing meals from raw or fresh ingredients %	Sitting down for main meal with all household members %
Two or more times a day	8	14
Once a day	46	57
Two to three times a week	27	15
About once a week	7	6
Two or three times a month	1	1
About once a month	2	1
Less often	3	3
Never	6	3
<i>Unweighted base</i>	3,143	2,510

Source: TNS (2006). *Consumer attitudes to food standards 2005*. Food Standards Agency: London.

Table 1.17 Declared frequency of using labelling information, adults aged 16 and over, 2000-2005, United Kingdom

<i>Frequency of behaviour</i>	2000 %	2001 %	2002 %	2003 %	2004 %	2005 %
Always	33	29	28	31	21	27
Usually	26	30	28	26	28	25
Occasionally	20	22	22	21	22	22
Rarely	11	10	10	12	13	12
Never	9	8	11	10	13	12
<i>Unweighted base</i>	3,152	3,120	3,173	3,121	3,229	3,143

Notes: Figures may not add to 100% due to rounding.

Source: TNS (2006). *Consumer attitudes to food standards 2005*. Food Standards Agency: London, and previous editions.

Table 1.18 *Information usually looked for on food labels and concerns about the accuracy of health claims, adults aged 16 and over, 2005, United Kingdom*

	Proportion of people (%)
Nutritional information	
The amount of fat	60
The amount of salt (sodium)	53
The amount of sugar	48
Calories	28
Vitamins	15
Ingredients information	
Additives (e.g. colours and preservatives)	41
Quantity of the main ingredients	17
The list of ingredients for special dietary reasons (medical, religious or dieting)	14
The list of ingredients for allergy reasons	11
The list of ingredients for other reasons	11
General information	
The best before / use by date	49
Cooking / storage instructions	27
Country of origin	22
Whether the product is of GM / non-GM origin	16
Production methods / ethical information	15
The name of the food	12
Whether the products are organic	8
Suitability for a vegetarian diet	7
Health claims	
Health claims such as 'low fat', or 'good for your heart'	18
Respondents concerned about the accuracy of food labelling	41
Respondents concerned about the accuracy of health claims	54
Of those concerned with the accuracy of health claims:	
Very concerned	24
Fairly concerned	54
Slightly concerned	21
<i>Unweighted base (information looked for on food labels)</i>	2,649
<i>Unweighted base (accuracy of food labelling / health claims)</i>	3,143
<i>Unweighted base (level of concern over accuracy of health claims)</i>	1,640

Notes: Respondents could respond to more than one answer, so percentages do not add to 100%.

Source: TNS (2006). *Consumer attitudes to food standards 2005*. Food Standards Agency: London.

Table 1.19 *Awareness of healthy eating patterns, adults aged 16 and over, 2005, United Kingdom*

<i>Food categories</i>	Believe people should eat less than they currently do	Believe people should eat more than they currently do
	%	%
Vegetables / Salad	0	86
Fruit	0	85
Fish	1	48
Bread / cereals / pasta / rice / potatoes	4	30
Nuts / beans / chickpeas / lentils	3	26
Milk / dairy products	9	18
Meat	30	9
Foods containing fat	68	1
Foods or drinks containing sugar	65	0
Salt in your food	58	0
<i>Unweighted base</i>	3,143	3,143

Source: TNS (2006). *Consumer attitudes to food standards 2005*. Food Standards Agency: London.

Table 1.20 Awareness of recommended daily portions of fruit and vegetables, adults aged 16 and over, 2005, United Kingdom

<i>Number of portions of fruit and vegetables</i>	Believe people should eat every day %
None	0
1	2
2	7
3	7
4	6
5	63
6	3
7 to 9	1
10+	1
5 or more	67
<i>Unweighted base</i>	3,143

Notes: Figures do not add to 100%, as respondents could choose not to answer.

Source: TNS (2006). *Consumer attitudes to food standards 2005*. Food Standards Agency: London.

Table 1.21 *Average expenditure on all foods, and on selected food categories, by income quintile, adults aged 16 and over, 2002-2005, Great Britain*

<i>Household expenditure (pence per person per week)</i>	Quintile 1 (Lowest income)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (Highest income)
Milk and cream	159	157	151	147	153
Cheese	48	50	55	57	74
Meat and meat products	431	462	462	492	539
Fish	93	96	86	89	109
Eggs	21	18	17	16	18
Fats and oils	42	42	36	32	35
Sugar and preserves	22	20	16	14	14
Fresh and processed potatoes	95	102	103	105	98
Vegetables excluding potatoes	147	159	159	172	221
Fruit	142	154	149	150	202
Total cereals	332	350	352	374	411
Confectionery	72	83	78	82	84
All other foods	100	108	111	121	141
Beverages	47	47	40	38	40
Soft drinks	63	70	79	85	88
Alcoholic drinks	164	207	240	265	350
Total food and drink	1,979	2,125	2,135	2,240	2,577
<i>Eating out expenditure (pence per person per week)</i>					
Food and drink exc. alcohol	346	483	641	794	1,129
Alcoholic drinks	179	232	323	412	519
Total food and drink	525	715	964	1,206	1,648

Source: Office for National Statistics (2006) *Expenditure and Food Survey 2004/05*. The Stationery Office : London.

Fig 1.21 *Percentage of household food expenditure on fruit and vegetables and confectionery by income quintile, adults aged 16 and over, 2002-2005, Great Britain*

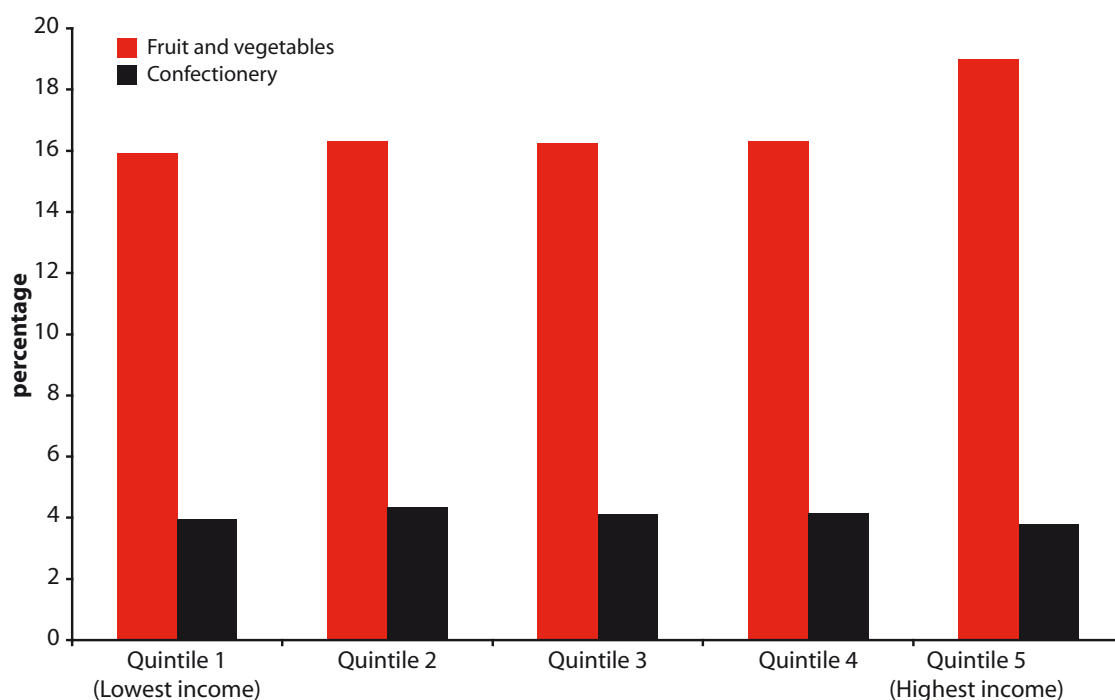


Table 1.22 Average expenditure on total household food and drink, fruit and vegetables, adults aged 16 and over, 1975-2004/05, Great Britain

	1975	1985	1995	2000	2001/02	2002/03	2003/04	2004/05
<i>Pence per person per week</i>								
Total household food and drink exc. alcohol (current prices)	403	991	1,664	1,844	1,908	1,942	2,002	2,039
Food Price Index	100	253	364	381	397	396	404	405
Total household food and drink exc. alcohol (2004/05 prices)	1,632	1,586	1,851	1,960	1,946	1,986	2,007	2,039
Fruit (current prices)	25	66	118	146	150	159	163	167
Fruit Price Index	100	236	291	310	342	339	346	332
Fruit (2004/05 prices)	84	93	134	156	145	156	156	167
Vegetables exc. potatoes (current prices)	41	111	214	232	235	238	247	250
Vegetable Price Index	100	245	303	280	325	309	335	326
Vegetables exc. potatoes (2004/05 prices)	133	148	230	270	236	251	241	250

Notes: Total household food expenditure for 1975 and 1985 does not include confectionery and soft drinks. 2004/05 prices have been calculated by multiplying current prices by the ratio of 2004/05 price index to the current year price index.

Sources: Office of National Statistics (2006) *Expenditure and Food Survey 2004/05*. The Stationery Office: London, and previous editions. Department for Environment, Food and Rural Affairs (2001) *National Food Survey 2000*. The Stationery Office: London, and previous editions.

Table 1.23 Total impact of advertising during dedicated children's airtime, selected categories, 2004 and 2005, United Kingdom

Impacts (billions)	2004	2005
Leisure equipment	12.2	13.4
Food	6.5	5.0
Chain restaurants	1.1	1.0
Soft drinks	0.5	0.4
Confectionery	1.5	1.1
Cereals	1.8	1.2
Savoury snacks	0.2	0.1
All other prepared & convenience foods	0.1	0.2
All other foods	1.2	1.3
Entertainment and the media	2.4	2.5
Finance	1.8	1.8
All other categories	5.6	5.9
Total	28.5	28.6

Notes: 'Impacts' are a measure of how much advertising is seen by different groups. One impact is equivalent to one member of the target audience viewing one commercial spot. Numbers may not add exactly due to rounding.

Source: Ofcom (2006). *Television advertising of food and drink products to children: options for new restrictions*. Ofcom: London

Table 1.24 Food adverts during dedicated children's airtime, selected food categories, 2005, United Kingdom

Food category	All food advertising %
Bakery goods	2
Chain restaurants	12
Confectionery	20
Cooking products	4
Dairy products	17
Drinks & beverages	3
Fruit, vegetables & pasta	3
Meat, fish & poultry	4
Prepared & convenience foods	26
Organic foods	0
Soft drinks	9
Total	100

Notes: Data collection was from four terrestrial channels (ITV1, GMTV, Channel 4, Five) and four dedicated children's channels (Boomerang, Cartoon Network, Nickelodeon, Trouble). Data were collected for one week for content during scheduled children's airtime and between 17.00 and 21.00 for terrestrial channels, and for all broadcast of dedicated children's channels.

In total, data on 12,839 adverts were collected, 2,561 of which were for food products.

Source: Ofcom (2006). Television advertising of food and drink products to children: options for new restrictions. Ofcom: London

Fig 1.24 Food adverts during dedicated children's airtime, selected food categories, 2005, United Kingdom

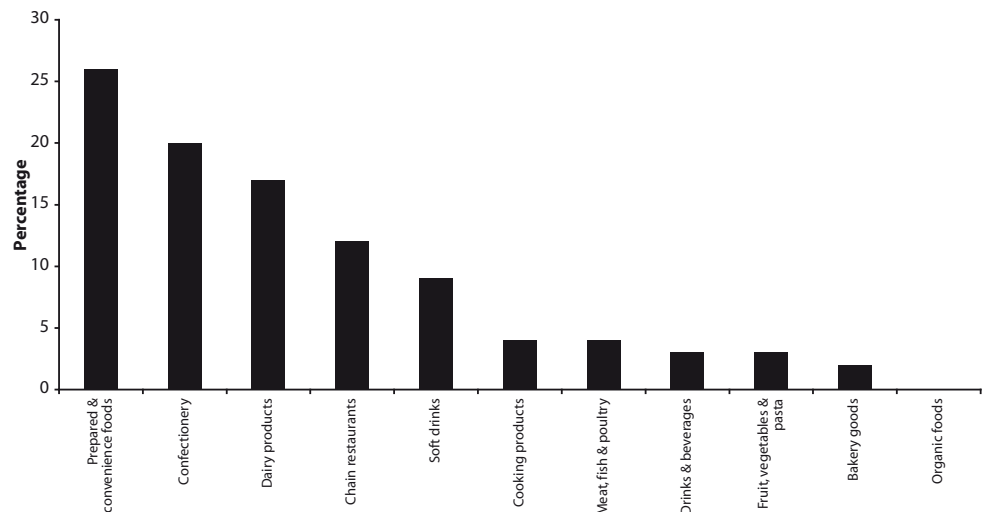


Table 1.25 Price promotions for fruit and vegetables, fatty and sugary and other foods at supermarkets, 2005, England

Food categories	Price promotions by supermarket								
	Asda	Co-op	Iceland	Marks & Spencer	Morrisons	Sainsbury's	Somerfield	Tesco	Waitrose
Fruit and vegetables	12	17	15	27	9	16	7	14	22
Fatty and sugary foods	27	37	35	27	29	33	31	35	32
Other foods	62	46	50	46	62	52	62	51	47

Notes: Data taken from only one store of each supermarket chain, from different locations in England. Numbers may not add up to 100 due to rounding.

Source: Dibb S (2005). *Healthy competition: how supermarkets can affect your chances of a healthy diet*. National Consumer Council: London.

Fig 1.25 Price promotions for fruit and vegetables, fatty and sugary and other foods at supermarkets, 2005, England

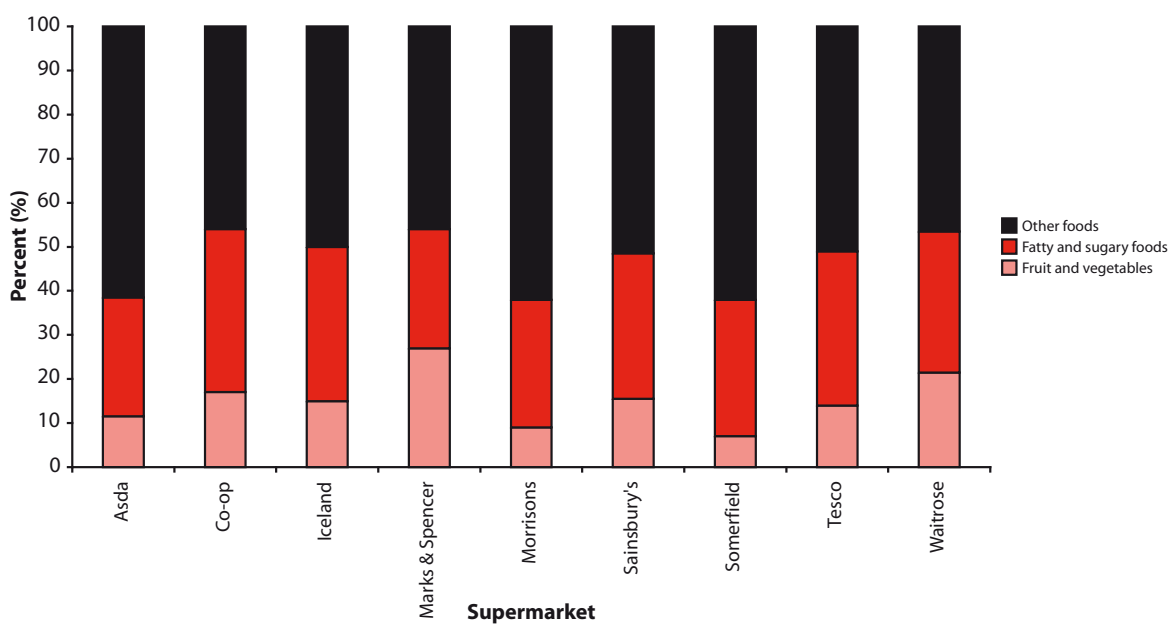


Table 1.26 *Cost of food-related ill health to the NHS, 2002*

<i>Disease categories</i>	Cost to NHS (£ billions)	Costs attributed to poor diet (£ billions)
<i>Diet-related diseases</i>	18.3	6.0
Cardiovascular disease	8.4	2.8
Diabetes, and other diseases of the hormonal and immune systems	1.4	0.5
Cancer	2.8	0.9
Dental caries, and other diseases of the digestive system	5.6	1.9
<i>Non-diet related diseases</i>	52.7	
Infectious diseases	0.7	
Neuropsychiatric disorders, and diseases of the nervous system	17.6	
Injuries	2.8	
Other	31.6	
Total	70.2	

Notes: Figures may not add due to rounding. NHS costs for diseases for 2002 are extrapolated from 1992/93 costs.

Source: Rayner M, Scarborough P (2005). *The burden of food-related ill health. Journal of Epidemiology and Community Health*; 59: 1054-57.

2. Physical activity

People who are physically active have a lower risk of CHD. To produce the maximum benefit the activity needs to be regular and aerobic. Aerobic activity involves using the large muscle groups in the arms, legs and back steadily and rhythmically so that breathing and heart rate are significantly increased.

Recent research from the World Health Organization highlighted the importance of physical inactivity as a major risk factor for CHD. The 2002 World Health Report estimated that around 3% of all disease burden in developed countries was caused by physical inactivity, and that over 20% of CHD and 10% of stroke in developed countries was due to physical inactivity (less than 2.5 hours per week moderate intensity activity or 1 hour per week vigorous activity)¹.

Public health targets

Since 1996, the Government recommendation on physical activity has been that adults should participate in a minimum of 30 minutes of at least moderate intensity activity (such as brisk walking, cycling or climbing the stairs) on five or more days of the week. In 2004 the Chief Medical Officer restated this recommendation in the report *At least five a week*, and highlighted the importance of physical activity in the prevention of CHD, diabetes and obesity².

Choosing Activity: a physical activity action plan was published in 2005³. This document outlined key commitments relating to physical activity contained within the White Paper *Choosing Health*, which aimed to increase levels of physical activity in adults and children in England⁴.

A target for physical activity in England was proposed in 2002 by the Government's Strategy Unit: to increase the proportion of the adult population who participate in 30 minutes of moderate physical activity five or more times a week to 70% by 2020 (Table 2.1)⁵. This is a very ambitious target requiring participation levels in England to more than double in just over 15 years. HM Treasury proposed that the proportion of children who spend a minimum of two hours per week on high quality sport should increase from 25% in 2002 to 75% by 2006 and 85% by 2008⁶.

In 2003 the Scottish Health Executive set a target that by 2022, 50% of the adult population should participate in 30 minutes of moderate activity on 5 or more occasions each week. The Scottish target for children is to increase the number of children taking at least one hour a day of moderate activity on 5 or more days a week to 80% by 2022⁷.

There are no physical activity targets set for Wales or Northern Ireland.

Overall levels

Physical activity levels are low in the UK. Health Survey for England data showed that, in 2003, only 37% of men and 24% of women met the current physical activity guidelines suggested by the Government (Table 2.2). In 2003 over one third of English adults were inactive, that is, participated in less than one occasion of 30 minutes activity a week.

The 2003 Scottish Health Survey suggested that good progress has been made towards Scotland's physical activity targets for men and women; 42% of men and 30% of women were meeting the target. The same survey found that 30% of men and 35% of women were inactive (Table 2.2).

The 2003/04 Welsh Health Survey found that 36% of men and 22% of women were active at or above the recommended level. The 2001 Northern Ireland Health and Social Wellbeing Survey found that 30% of men and 26% of women were active at or above the recommended level (Table 2.2).

Sex and age differences

Physical activity declined rapidly with increasing age for both men and women, although for women this decline did not begin until the mid-forties (Table 2.2 and Figures 2.2a and 2.2b). In England 53% of men and 30% of women aged 16–24 were physically active at the recommended level compared to 17% of men and 13% of women in the 65–74 age group. In Scotland 59% of men and 36% of women were meeting the guideline in the youngest group compared to 23% and 16% in the older age group.

Less Welsh men (45%) and women aged 16–24 (25%) and less Northern Irish men (38%) and women (27%) met the physical activity guideline. Among the 65–74 age group a quarter (24%) of Welsh men, 15% of Welsh women, 20% of Northern Irish men and 17% of Northern Irish women were active at the recommended level.

Between 1997 and 2004, the Health Survey for England reported that the overall proportion of adults meeting the recommended level of physical activity increased from 32% to 37% in men and from 21% to 25% in women (Table 2.3).

Children and young people

It is recommended that all children and young people aged 5–18 participate in physical activity of at least moderate intensity for one hour a day^{2,3}. In 2002 in England, 70% of boys and 61% of girls aged 2–15 were active for at least an hour a day (Table 2.4). In girls, participation rates declined with age after about age 10. By the age of 15, only 50% of girls reached the recommended level of activity (Figures 2.4a and 2.4b). In 2003 in Scotland, 74% of boys aged 2–15 and 63% of girls aged 2–15 were active for at least one hour per day. In the 13–15 age group, only 41% of girls were active at the recommended level.

National and regional differences

In 2003, levels of physical activity in Scotland were higher for men in all age groups than in England (Table 2.2). This was particularly the case for 25–34 year olds, where 57% met physical activity recommendations in Scotland compared to 44% in England. This was also the case for women: 40% of 25–34 year olds met recommendations in Scotland compared to 29% in England.

Within England there was some variation in the level of activity by region (Table 2.5). Men were more likely to meet the physical activity recommendations in the South West (42%), West Midlands (41%), North East (40%) and North West (40%). Women were more likely to meet the physical activity guidelines in the South West (27%), South East (27%), the North East (26%) and London (26%).

Socio-economic differences

Socio-economic differences in physical activity are complex. Among English men in 2003, 32% of those in managerial or professional jobs met current recommended levels of physical activity compared to 49% of small employers and own account workers. In Scottish men the proportions were 42% and 47% respectively.

In English women, however, the pattern was reversed: 34% of women with managerial and professional jobs met the current recommended levels of physical activity compared to between 24% and 29% of women from other socio-economic groups. For Scottish women the proportions were 32% for managerial level women and 27% and 35% for routine and small employers respectively (Table 2.6).

Ethnic differences

Compared with the general population, Indian, Pakistani, Bangladeshi and Chinese men and women were less likely to meet physical activity recommendations. Only 26% of Bangladeshi men and 11% of Bangladeshi women met the current recommended physical activity levels. Irish men and Black Caribbean women were the most likely to be physically active at the recommended level (Table 2.7 and Figure 2.7).

International differences

Levels of activity varied across European member states, with levels of activity in the UK falling just below the EU average (Table 2.8 and Figure 2.8).

Factors contributing to uptake of physical activity

There has been a decrease in the proportion of time spent on daily activities which include some element of physical activity. Data from the 2005 Time Use Survey showed that the proportion of people who reported 'resting' as an activity increased from 34% (22 minutes on average) in 2000 to 51% (46 minutes on average) in 2005 while sport and other outdoor activities reduced from 15% (14 minutes on average) in 2000 to 10% (10 minutes on average) in 2005 (Table 2.9 and Figure 2.9).

The average time spent on sedentary activities such as watching television and DVDs was highest in Scotland (185 minutes per day) and Wales (183 minutes per day) and lowest in Northern Ireland (157 minutes per day) (Table 2.10). The most popular active pursuit was gardening with an average of 14 minutes per day spent gardening in Wales, 10 minutes in England and four minutes in Northern Ireland (Figure 2.10). A similar geographic pattern was seen in other leisure pursuits like walking, hiking, jogging and running. Within England there appeared to be more time spent watching television in the North than in the South.

Between 1995 and 1999 television viewing increased among all age groups other than young

men. Time spent watching television also increased with age and was generally higher among women than men (Table 2.11 and Figure 2.11). There was an increase in the average hours spent watching television between 1995 and 1999 among women younger than 65 and a decrease among men younger than 45. Television ownership had increased by more than 50% since the late 50s (Table 2.12).

Data from the National Travel Survey showed that in England between 1975/76 and 2004 the average number of miles travelled per year by foot fell by around a quarter and by cycle by around a third (Table 2.13). Over the same period the average number of miles per year travelled by car or van increased by around 60% (Figure 2.13). A similar pattern was observed for the average number of trips per year (Table 2.14). From 1975/76 the average number of walking trips dropped by around a quarter and the number of bicycle trips halved while the number of journeys in a car have increased by around 50% (Figure 2.14).

The Department for Transport reported that between 1972 and 2004 the number of households with no cars dropped from 48% to 27%. There had been an increase in car ownership among households with one car and also among households with two cars and three or more cars (Figure 2.15).

In 2001 a study of more than 19,000 university students across 23 countries (including England) examined beliefs about the health benefits of physical activity compared to actual leisure time physical activity. The proportion of respondents with strong beliefs was lowest among inactive students and greatest among those active at the highest level (Table 2.16 and Figure 2.16).

Economic costs

Diseases attributable in some part to physical inactivity include coronary heart disease, breast cancer and diabetes mellitus. In total, more than one billion pounds is lost to the NHS each year due to physical inactivity (Table 2.17).

1. World Health Organization (2002) *The World Health Report 2002. Reducing Risks, Promoting Healthy Life*. World Health Organization: Geneva.
2. Department of Health (2004) *At least five a week: evidence on the impact of physical activity and its relationship to health*. Department of Health: London. See www.dh.gov.uk/assetRoot/04/08/09/81/04080981.pdf
3. Department of Health (2005) *Choosing Activity: a physical activity action plan*. DH: London.
4. Department of Health (2004) *Choosing Health: making healthy choices easier*. DH: London.
5. Strategy Unit (2002) *Game Plan: a strategy for delivering Government's sport and physical activity objectives*. A joint Department of Culture, Media and Sport and Strategy Unit Report. HMSO: London. See www.strategy.gov.uk/downloads/work_areas/sport/sport.pdf
6. HM Treasury (2004) *Spending Review*. Department for Culture, Media and Sport. HMSO: London. See www.hm-treasury.gov.uk/media/965/FB/sr2004_ch18.PDF
7. *Let's Make Scotland More Active: A strategy for physical activity* (2003). *The Scottish Executive*: Edinburgh.

Table 2.1 Physical activity targets for the United Kingdom

ENGLAND^{1,2}	
Adults ¹	By 2020, 70% of individuals to be undertaking 30 minutes of physical activity on at least 5 days a week. An interim target of 50% of individuals by 2011
Children ²	To increase the proportion of school children in England who spend a minimum of two hours each week on high quality sport from 25% in 2002, to 75% by 2006 and 85% in 2008
SCOTLAND³	
Adults - <i>Target</i>	To increase the proportion of all adults aged over 16 years taking the minimum recommended levels of physical activity (30 minutes of moderate activity on 5 or more occasions each week) to 50% by 2022. To meet this goal will need average increases of 1% a year across the population
Children - <i>Target</i>	To increase the proportion of all children aged 16 and under taking the minimum recommended levels of physical activity (1 hour a day of moderate activity on 5 or more days a week) to 80% by 2022. To meet this goal will need average increases of 1% a year across the population
WALES	No target set
NORTHERN IRELAND⁴	No target set

1. Joint Department of Culture, Media and Sport and Strategy Unit Report (2002) *Game Plan: a strategy for delivering Government's sport and physical activity objectives*. Strategy Unit: London. www.number-10.gov.uk/su/sport/report/03.htm
2. HM Treasury (2004) *Spending Review*. Department for Culture, Media and Sport www.hm-treasury.gov.uk/media/965/FB/sr2004_ch18.PDF
3. *Let's Make Scotland More Active: A strategy for physical activity* (2003). The Scottish Executive: Edinburgh
4. *New strategies for CVD in Northern Ireland are being developed by the Department of Health, Social Services and Public Safety and were issued for consultation in 2004.*

Table 2.2 Physical activity level, by sex and age, England and Scotland 2003, Wales 2003/04 and Northern Ireland 2001

<i>Summary physical activity level*</i>	All ages %	16-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75 & over %
ENGLAND								
MEN								
Low	32	18	20	24	32	39	52	72
Medium	31	29	36	35	31	29	32	20
High (above recommended level)	37	53	44	41	38	32	17	8
<i>Weighted base</i>	7,177	1,044	1,272	1,412	1,180	1,037	731	501
WOMEN								
Low	40	31	27	28	35	41	56	82
Medium	36	39	45	42	34	36	31	14
High (above recommended level)	24	30	29	30	31	23	13	3
<i>Weighted base</i>	7,611	1,029	1,279	1,437	1,199	1,071	813	782
SCOTLAND								
MEN								
Low	30	19	18	21	29	39	47	61
Medium	28	22	26	34	31	26	30	26
High (above recommended level)	42	59	57	45	40	35	23	13
<i>Weighted base</i>	3,857	580	610	761	670	569	406	260
<i>Unweighted base</i>	3,610	336	455	733	616	633	510	327
WOMEN								
Low	35	27	18	22	27	35	53	78
Medium	35	36	42	40	38	37	31	16
High (above recommended level)	30	36	40	39	35	28	16	6
<i>Weighted base</i>	4,538	404	600	887	795	778	581	493
<i>Unweighted base</i>	4,291	566	658	813	691	602	493	468
WALES								
MEN								
Low	32	17	18	23	33	40	45	62
Medium	32	39	37	37	30	27	31	22
High (above recommended level)	36	45	45	41	37	32	24	15
WOMEN								
Low	38	23	24	27	33	39	54	76
Medium	40	53	51	48	42	37	30	15
High (above recommended level)	22	25	24	25	25	23	15	8
NORTHERN IRELAND								
MEN								
Low	24	8	12	17	21	32	41	58
Medium	46	55	54	47	45	44	39	27
High (above recommended level)	30	38	34	36	34	23	20	15
<i>Base</i>	1,968	250	337	347	351	277	266	140
WOMEN								
Low	25	14	13	10	23	30	44	66
Medium	48	60	55	55	46	46	39	27
High (above recommended level)	26	27	32	35	31	24	17	7
<i>Base</i>	2,722	345	476	501	466	357	319	258

Notes: High = 30 minutes or more on at least 5 days a week (above recommended level);
 Medium = 30 minutes or more on 1 to 4 days a week;
 Low = lower level of activity.
 Information on bases for Welsh Health Survey unavailable

Source: Department of Health (2005) Health Survey for England 2004. The Stationery Office: London.
 Scottish Health Executive (2005) The Scottish Health Survey 2003: Results. <http://www.scotland.gov.uk/Publications/2005/11/25145024/50251>
 National Assembly for Wales (2005) Welsh Health Survey 2003/04. <http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/health/2005/hs2003-04/hs2003-04.htm>
 Northern Ireland Statistics and Research Agency (2001) Northern Ireland Health and Social Wellbeing Survey 2001: Physical activity results - Activity level tables. <http://www.csu.nisra.gov.uk/archive/Surveys/HWB/results/2001/Physical%20activity/Activity%20level%20tables.PDF>

Fig 2.2a *Proportion meeting physical activity guideline by age and country, men, latest available year*

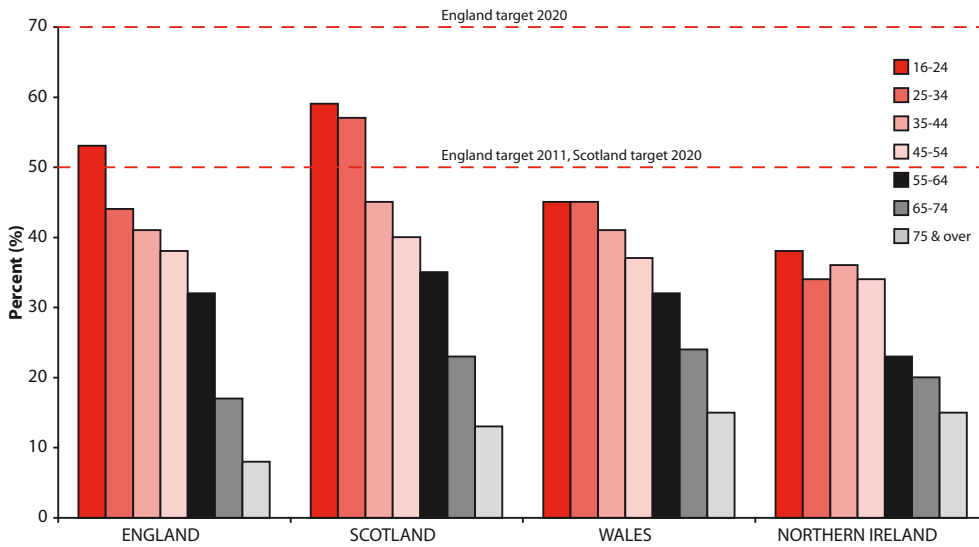


Fig 2.2b *Proportion meeting physical activity guideline by age and country, women, latest available year*

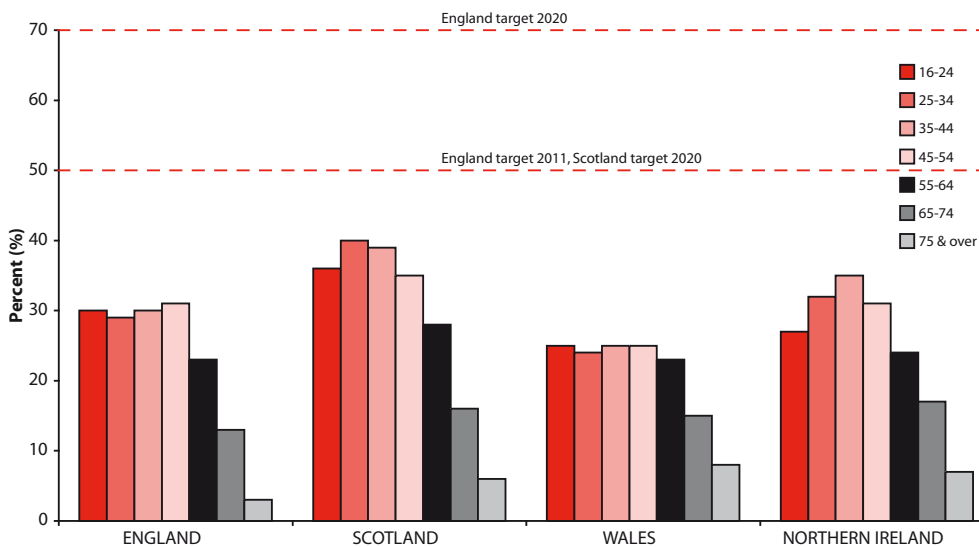


Table 2.3 *Proportion meeting physical activity guideline, by sex and age, 1997, 1998, 2003 and 2004, England*

	All ages %	16-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75 & over %
MEN								
1997	32	49	41	37	32	23	12	7
1998	34	53	45	41	34	30	14	6
2003	36	52	44	41	38	32	17	8
2004	37	56	46	41	37	32	18	8
<i>Bases</i> 1997	3,898	492	739	740	694	535	455	243
1998	7,193	875	1,338	1,305	1,289	987	837	562
2003	7,177	1,044	1,272	1,412	1,180	1,037	731	501
2004	46,089	6,860	7,874	9,160	7,505	6,758	4,656	3,276
WOMEN								
1997	21	26	26	29	24	19	8	5
1998	21	28	28	28	25	18	9	3
2003	24	30	29	30	31	23	13	3
2004	25	32	30	32	30	20	14	4
<i>Bases</i> 1997	4,684	560	916	833	806	585	545	439
1998	8,715	1,006	1,630	1,573	1,484	1,148	967	907
2003	7,611	1,029	1,279	1,437	1,199	1,071	813	782
2004	48,643	6,683	7,966	9,241	7,654	6,955	5,152	4,991

Notes: Data for 2003 and 2004 are weighted for non response.
Adults aged 16 and over.
Activity sessions lasting for less than 30 minutes in 1997 and 1998 were excluded so that data were comparable with 2003 and 2004.

Source: Department of Health (2005) *Health Survey for England 2004*. The Stationery Office: London.

Table 2.4 *Physical activity level among children aged 2-15, by sex and age, England 2002 and Scotland 2003*

Summary physical activity level*	Age (years)														
	All ages %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %	11 %	12 %	13 %	14 %	15 %
ENGLAND 2002															
BOYS															
Low	17	20	12	12	17	16	14	18	17	16	14	18	15	24	17
Medium	13	13	12	15	17	14	15	14	14	12	9	11	17	14	14
High	70	67	76	73	67	70	71	68	69	72	77	71	69	62	69
<i>% physically active at the recommended level</i>	70	67	76	73	67	70	71	68	69	72	77	71	69	62	69
<i>Weighted base</i>	4,201	283	266	285	287	304	336	317	296	331	322	299	290	309	275
GIRLS															
Low	22	23	11	21	18	18	22	19	23	17	20	26	27	35	35
Medium	16	12	11	14	16	13	13	19	15	17	16	22	23	21	15
High	61	65	78	65	66	69	65	62	62	66	64	52	50	44	50
<i>% physically active at the recommended level</i>	61	65	78	65	66	69	65	62	62	66	64	52	50	44	50
<i>Weighted base</i>	4,058	283	278	261	301	296	298	300	300	281	310	304	296	280	270
SCOTLAND 2003															
	All ages %				2-4 %		5-7 %		8-10 %		11-12 %		13-15 %		
BOYS															
Low	13				12		11		11		12		19		
Medium	12				11		14		12		10		13		
High	74				77		75		77		78		68		
<i>% physically active at the recommended level</i>	74				77		75		77		78		68		
<i>Weighted base</i>	1,516				291		311		319		258		338		
GIRLS															
Low	19				15		12		12		17		36		
Medium	18				15		13		13		26		23		
High	63				70		75		75		57		41		
<i>% physically active at the recommended level</i>	63				70		75		75		57		41		
<i>Weighted base</i>	1,449				280		328		293		239		308		

Notes: Due to a smaller sample size, results for Scotland are presented by broader age groups than for England.

* High 3= 60 minutes or more on all 7 days in last week;

Medium 2= 30-59 minutes on all 7 days;

Low 1= lower level of activity.

Source: Department of Health (2003) *Health Survey for England: The Health of Children and Young People 2002*. The Stationery Office: London.
The Scottish Executive (2005) *The Scottish Health Survey 2003*. The Stationery Office: Edinburgh.

Fig 2.4a *Physical activity level among boys aged 2-15, England 2002 and Scotland 2003*

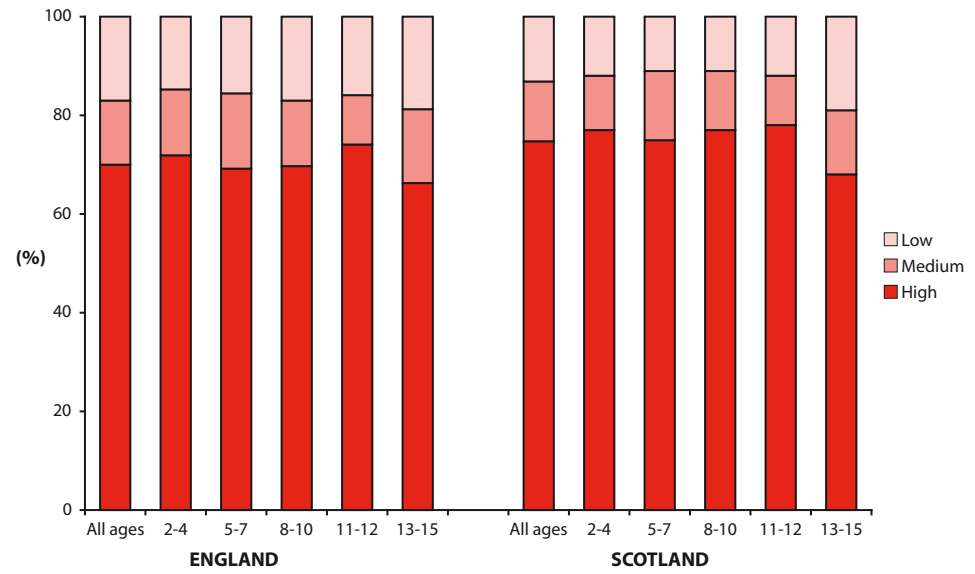


Fig 2.4b *Physical activity level among girls aged 2-15, England 2002 and Scotland 2003*

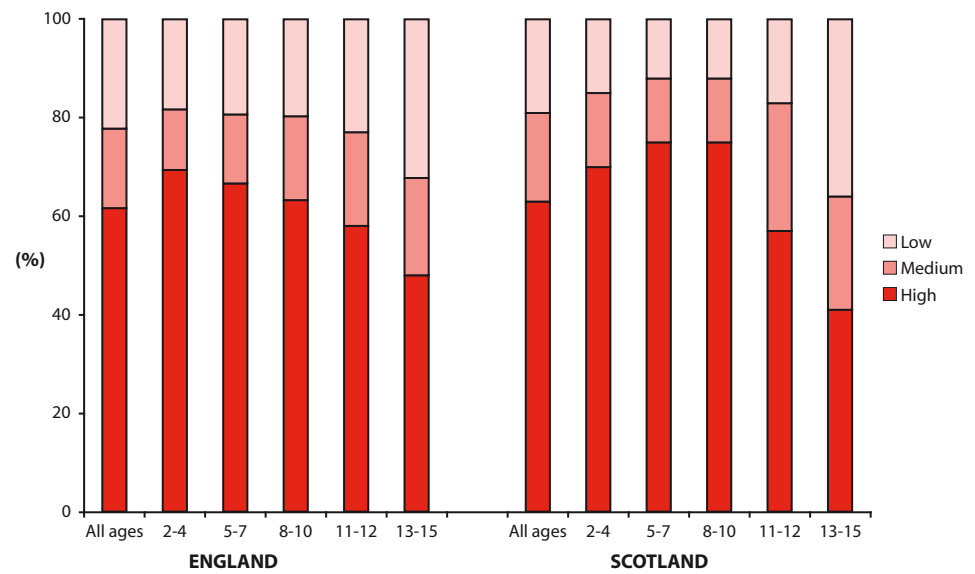


Table 2.5 *Physical activity levels (observed and age-standardised), by Government Office Region and sex, men and women aged 16 and over 2003*

Summary physical activity level*	Government Office Region								
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West
MEN	%	%	%	%	%	%	%	%	%
High	40	40	38	38	41	36	32	38	42
Medium	27	29	28	31	28	34	32	37	33
Low	34	31	34	31	31	29	36	25	26
Weighted base	368	962	708	635	769	813	1,063	1,151	709
WOMEN									
High	26	25	23	24	22	24	26	27	27
Medium	35	35	37	35	36	40	34	36	37
Low	40	40	40	40	42	36	41	37	35
Weighted base	416	1,024	765	659	812	843	1,092	1,231	768

Notes: *High activity level = 30 minutes or more on at least 5 days a week; Medium=30 minutes or more on 1 to 4 days a week; Low=lower levels of activity. Results presented for prevalence in a standardised population only

Source: Department of Health (2004) Health Survey for England 2003. The Stationery Office: London.

Table 2.6 *Physical activity level by sex and socio-economic classification of household reference person, England, Scotland and Wales, latest available year*

Summary physical activity level*	Socio-economic classification				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
ENGLAND 2003					
MEN					
High	32	35	49	45	43
Weighted base	2,932	506	825	969	1,814
WOMEN					
High	34	25	29	27	24
Weighted base	2,898	714	752	875	2,153
SCOTLAND 2003					
MEN					
High	42	47	47	45	40
Weighted base	1,443	250	354	543	1,168
WOMEN					
High	32	33	35	30	27
Weighted base	1,537	392	341	467	1,403
WALES 2003/04					
MEN AND WOMEN					
High	24	25	36	33	29
Unweighted base	5,332	1,182	1,791	2,352	4,510

Notes: Adults aged 16 and over. Age-standardised percentages. For method of age-standardisation see source. Data are weighted for non-response. *High = 30 minutes or more physical activity on at least 5 days a week

Source: Department of Health (2004) Health Survey for England 2003. The Stationery Office: London. The Scottish Executive (2005) The Scottish Health Survey 2003. The Stationery Office: Edinburgh. National Assembly for Wales (2005) Welsh Health Survey 2003/04. <http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/health/2005/hs2003-04/hs2003-04.htm>

Table 2.7 Physical activity by sex and ethnic group, 2004, England

Summary physical activity level*	General population	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish
MEN	%	%	%	%	%	%	%	%
Group 1 - Low	32	34	35	44	51	51	38	33
Group 2 - Medium	31	29	30	26	21	23	32	28
Group 3 - High	37	37	35	30	28	26	30	39
<i>Unweighted base</i>	2,873	409	386	549	429	408	348	497
WOMEN	%	%	%	%	%	%	%	%
Group 1 - Low	39	39	43	45	52	68	47	33
Group 2 - Medium	36	30	28	32	34	21	36	38
Group 3 - High	25	31	29	23	14	11	17	29
<i>Unweighted base</i>	3,818	648	467	634	508	477	375	656

Notes: Age-standardised percentages (standardised risk ratios x percentage in general population). For observed values see source.
 *Group 3= 30 minutes or more physical activity on at least 5 days a week (recommended level);
 Group 2= 30 minutes or more on 1 to 4 days a week;
 Group 1= lower level of activity.

Source: Department of Health (2005) Health Survey for England 2004. The Stationery Office: London.

Fig 2.7 Percentage of adults meeting physical activity guideline, by sex and ethnic group, 2004, England

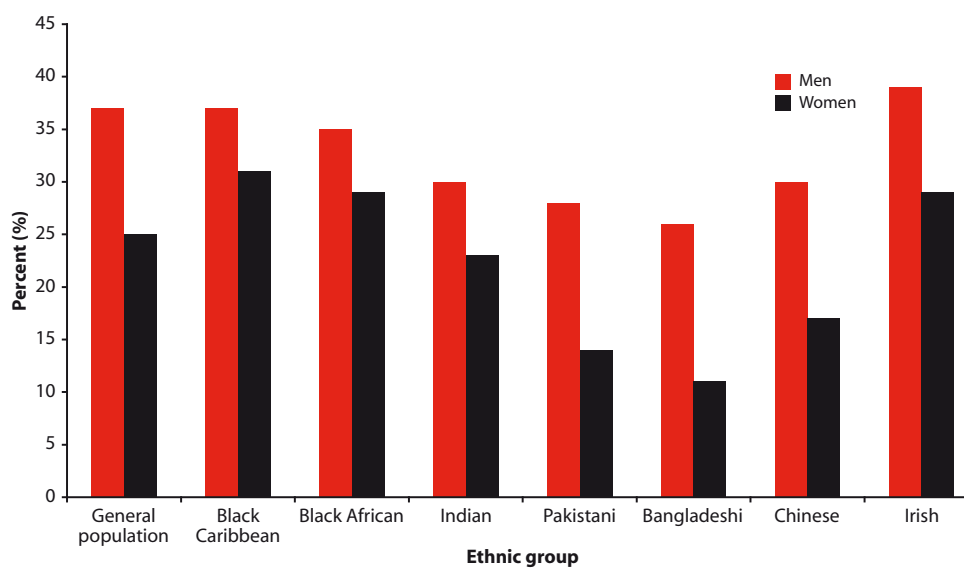


Table 2.8 Self-reported physical activity levels, 2002, European Union-15 countries

	Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain	Sweden	UK	Total EU (15)*
Number of days in last week walked for 10 minutes or more																
None	19	27	11	10	22	13	19	18	16	14	23	17	15	13	19	17
1-3	22	26	18	25	25	23	23	19	23	24	28	15	14	30	22	22
4-6	24	18	13	23	18	26	14	27	17	17	17	19	16	22	19	20
7 days	31	27	51	42	34	37	43	35	41	39	30	47	53	34	41	39
Don't know	5	2	2	1	1	2	1	1	3	6	2	3	2	1	<1	2
Number of days in last week undertook moderate physical activity																
None	39	38	31	36	53	29	38	46	50	34	8	26	51	44	43	41
1-3	27	24	28	33	27	30	23	22	26	27	19	19	20	30	28	26
4-6	20	18	20	16	9	24	12	17	10	14	23	18	14	13	14	16
7 days	8	18	22	15	10	15	27	14	12	21	49	31	13	12	15	15
Don't know	5	3	<1	1	1	3	<1	2	2	4	2	6	2	1	<1	2
Number of hours spent sitting on a usual day																
Less than 2.5	18	16	6	14	20	13	20	21	13	15	11	36	20	10	20	17
2.5-4.5	26	27	22	22	31	27	29	32	26	27	26	27	29	27	33	28
More than 4.5	42	49	68	61	44	50	49	44	56	50	58	32	45	59	44	49
Don't know	14	8	4	3	5	10	2	3	5	7	6	5	6	4	3	6
Average number of hours	7.9	6.9	7.3	6.6	5.8	7.6	5.5	5.4	6.6	6.9	7.0	5.0	6.2	6.7	5.6	6.5

Source: European Commission (2003) Physical Activity. Special Eurobarometer 183-6/Wave 58.2 - European Opinion Research Group EEIG. http://europa.eu.int/comm/public_opinion/archives/ebs/ebs_183_6_en.pdf

Fig 2.8

Percentage of adults who do no moderate-intensity physical activity in a typical week, 2002, European Union-15 countries

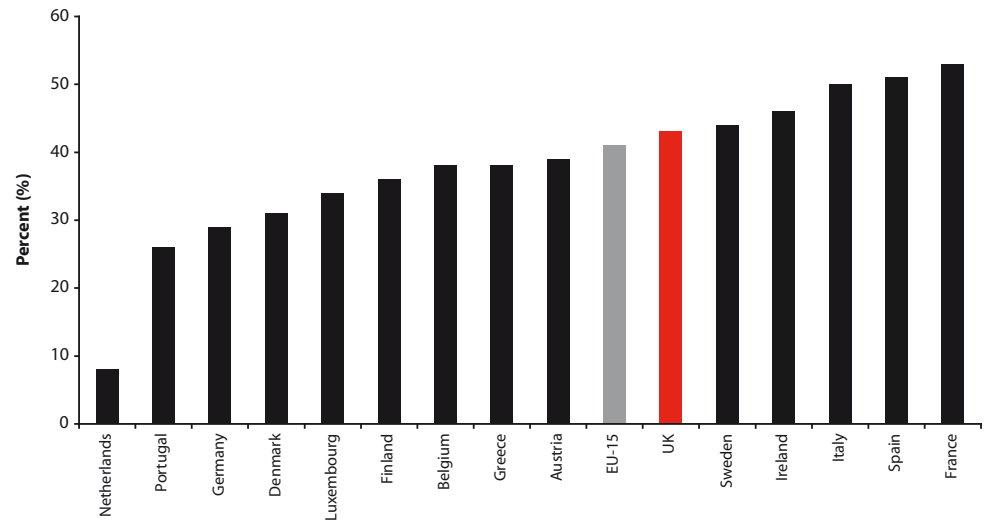


Table 2.9 *Time spent on main activities with rates of participation by sex, 2000 and 2005, Great Britain*

Main activity	MEN		WOMEN		ALL	
	2000	2005	2000	2005	2000	2005
<i>Average minutes per person per day</i>						
<i>% of people participating in activity</i>						
Sleep	503 100%	484 100%	513 100%	498 100%	508 100%	491 100%
Resting	19 29%	43 50%	25 39%	48 52%	22 34%	46 51%
Eating & drinking	86 97%	85 97%	88 98%	79 97%	87 98%	82 97%
Personal care i.e. wash/dress	41 94%	40 91%	52 97%	48 93%	47 96%	44 92%
Employment	226 47%	211 46%	127 32%	132 33%	174 39%	170 39%
Study	15 6%	14 5%	16 6%	14 6%	16 6%	14 6%
Housework excluding childcare	128 86%	101 77%	215 96%	180 92%	173 91%	142 85%
Childcare (of own household members)	11 14%	15 11%	28 24%	32 21%	20 20%	24 16%
Voluntary work & meetings	14 13%	15 10%	18 18%	20 15%	16 16%	17 12%
Social life	51 53%	77 46%	61 66%	87 54%	56 60%	82 50%
Entertainment & culture	6 5%	5 3%	6 6%	5 4%	6 6%	5 3%
Sport & outdoor activities	18 17%	13 12%	11 13%	7 8%	14 15%	10 10%
Hobbies & games	27 26%	37 28%	16 22%	23 19%	21 24%	30 24%
Reading	29 42%	23 26%	28 45%	26 30%	28 43%	24 28%
Watching TV & Video/DVDs	161 87%	170	137 87%	145	148 87%	157
Listening to radio and music	8 15%	82%	7 15%	78%	8 15%	80%
Travel	88 89%	92 88%	81 87%	82 84%	85 88%	87 86%
Other specified/ not specified	9 26%	13 10%	10 32%	15 10%	9 29%	14 10%
Total	1,440 100%	1,440 100%	1,440 100%	1,440 100%	1,440 100%	1,440 100%
<i>Total number of persons in sample</i>						
Weighted base	8,150	2,385	8,906	2,556	17,056	4,941
Unweighted base	7,535	2,238	9,031	2,703	16,566	4,941

Notes: The participation rate is the proportion of people who spent any time on the activity during their diary day.
Average time by those who participated in the activity = (average time per day for all people / proportion of people who participated in the activity) * 100
Watching TV/video/DVDs and listening to radio and music were coded together in 2005

Source: Office for National Statistics (2006). *The Time Use Survey, 2005*. London: HMSO.
http://www.statistics.gov.uk/articles/nojournals/time_use_2005.pdf

Table 2.10 Average time spent on various activities, by country of the United Kingdom and by Government Office Region, 2000, United Kingdom

Minutes per day	TV & video/DVD	Radio & music	Reading	Gardening	DIY	Walking & hiking	Jogging & running	Biking	Fitness	Swimming	Other physical exercise
UNITED KINGDOM	171.8	46.3	40.0	9.5	6.4	3.8	0.2	0.5	1.7	0.8	6.6
ENGLAND	170.3	46.7	39.3	9.7	6.4	3.7	0.2	0.5	1.8	0.8	7.2
North East	201.3	41.9	41.7	7.1	4.7	2.4	0.2	0.0	1.3	0.2	4.7
North West	180.3	44.0	37.0	7.3	8.1	4.4	0.3	0.7	2.0	0.5	7.2
Yorkshire and the Humber	183.5	39.9	37.5	8.0	3.1	3.1	0.3	0.3	1.7	0.8	6.5
East Midlands	174.3	47.8	38.5	11.1	6.6	4.1	0.2	0.8	1.7	0.8	4.4
West Midlands	175.1	44.2	33.0	10.7	6.9	3.3	0.5	0.2	2.0	0.8	6.9
East	164.1	45.9	42.5	14.3	7.5	4.4	0.1	1.1	2.1	0.8	8.5
London	155.8	47.6	40.4	5.2	3.9	2.5	0.2	0.2	1.3	1.0	6.3
South East	158.7	54.3	40.7	10.7	7.2	3.5	0.1	0.4	2.3	1.1	6.2
South West	165.4	49.0	42.7	13.5	9.1	5.1	0.0	0.5	1.2	0.7	7.5
SCOTLAND	184.8	44.6	44.5	7.4	5.7	4.5	0.4	0.4	1.4	1.0	7.7
WALES	182.5	47.5	47.8	14.1	9.3	4.6	0.0	0.6	1.1	0.7	5.1
NORTHERN IRELAND	157.1	36.5	32.1	3.5	1.2	4.4	0.2	0.7	1.0	0.4	4.6
<i>Participation rates (%)</i>											
UNITED KINGDOM	92.2	51.3	57.4	11.2	5.7	5.1	0.5	0.5	2.7	1.4	14.9
ENGLAND	92.0	51.6	56.8	11.5	5.9	4.9	0.5	0.5	2.9	1.5	14.9
North East	95.4	48.8	63.3	9.1	5.7	4.0	0.7	0.0	1.9	0.4	11.4
North West	93.4	53.4	56.0	8.3	6.0	5.4	0.6	0.6	3.5	1.2	16.1
Yorkshire and the Humber	93.5	49.1	55.4	9.4	3.9	4.0	0.7	0.3	2.4	1.4	14.6
East Midlands	93.3	53.7	54.7	14.1	5.8	5.4	0.3	0.5	2.2	1.2	13.6
West Midlands	92.1	46.7	48.6	12.0	5.9	4.3	0.9	0.2	2.8	1.4	13.7
East	90.4	51.6	59.4	16.5	6.0	5.5	0.3	1.2	3.4	1.6	17.1
London	89.1	49.4	55.7	6.9	4.4	4.3	0.6	0.2	2.2	1.8	13.8
South East	91.6	55.4	59.1	13.4	6.7	5.1	0.2	0.5	3.7	2.2	15.5
South West	91.6	53.2	61.0	14.6	8.4	5.9	0.1	0.4	2.5	1.1	16.1
SCOTLAND	93.2	50.2	64.0	8.1	5.1	5.9	0.5	0.3	2.0	1.4	15.5
WALES	94.3	49.9	58.0	15.5	6.4	5.9	0.0	0.7	2.1	1.0	15.3
NORTHERN IRELAND	91.7	49.9	53.8	4.4	1.9	6.4	0.4	0.8	1.0	0.6	12.7

Notes: Combined main and secondary activity time. See source, notes and definitions.

Source: Office for National Statistics (2001), The Time Use Survey, 2000. London: HMSO.

Fig 2.10 Average time spent on various activities, by country of the United Kingdom, 2000, United Kingdom

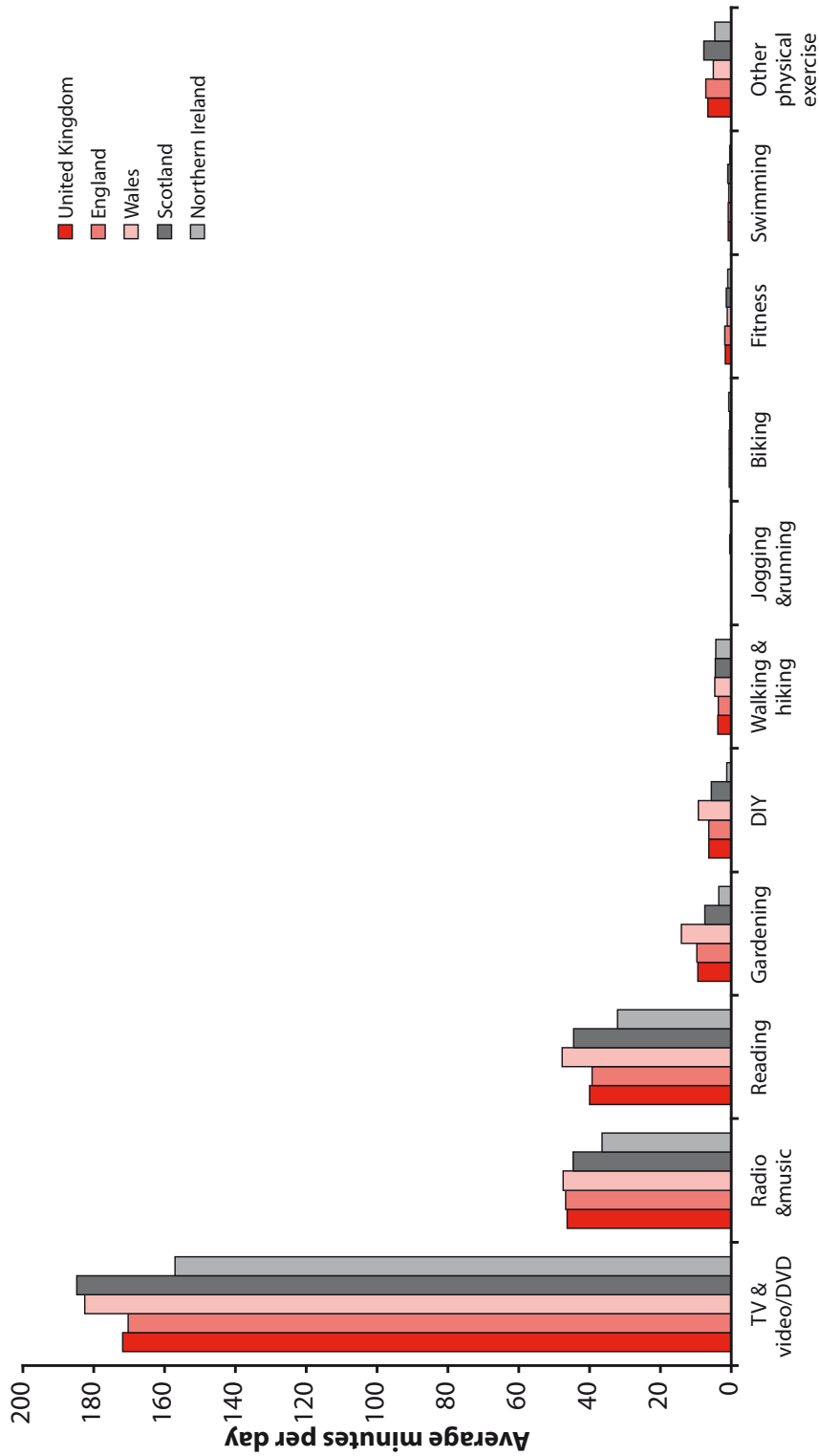


Table 2.11 TV viewing by age and gender, 1995 and 1999, United Kingdom

Hours per person per week	4-15	16-24	25-34	35-44	45-54	55-64	65 & over
MEN 1995	18.8	18	22.3	22.9	24.2	28	34.5
MEN 1999	18.6	17.7	21.6	22.5	25.3	28.8	36.4
WOMEN 1995	17.2	20.3	25.9	25.2	26.4	31.4	36.7
WOMEN 1999	17.9	22.8	26.5	25.4	26.9	32.1	36.5

Source: British Broadcasting Corporation; BARB; Taylor Nelson Stores Ltd; RSMB Ltd; RAJAR/RSL Ltd; see <http://www.barb.co.uk/>

Fig 2.11 TV viewing by age and gender, 1995 and 1999, United Kingdom

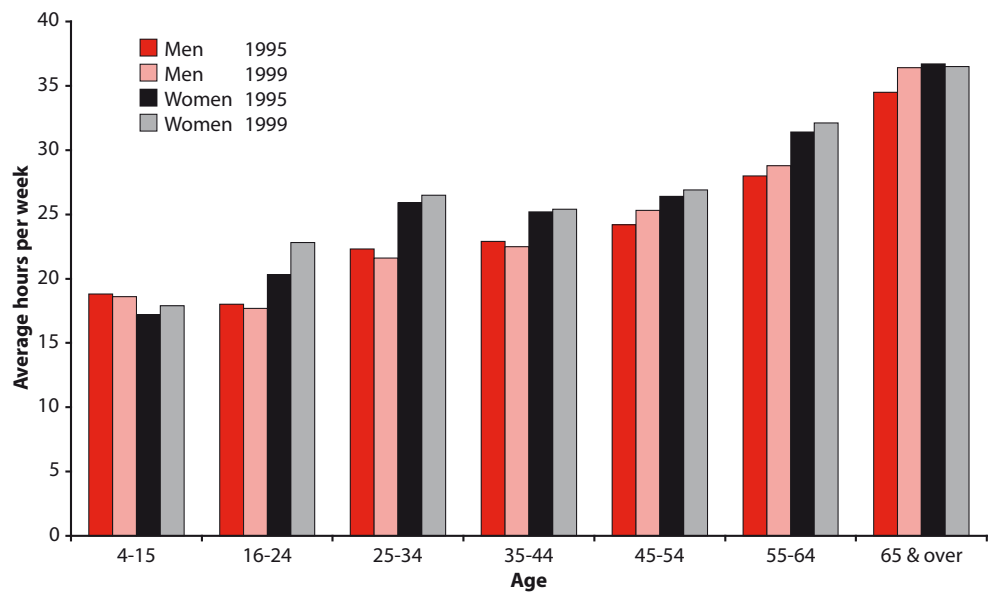


Table 2.12 Television ownership in private domestic households, 1956-2006, United Kingdom

YEAR	Homes (millions)				
	ALL HOMES	TV HOMES	ITV HOMES	DIGITAL TV HOMES	COLOUR TV HOMES
1956	16	6	1	NA	NA
1957	16	7	3	NA	NA
1958	16	8	5	NA	NA
1959	16	9	7	NA	NA
1960	16	11	9	NA	NA
1961	17	12	10	NA	NA
1962	17	13	11	NA	NA
1963	17	14	12	NA	NA
1964	17	14	13	NA	NA
1965	17	15	14	NA	NA
1966	18	15	14	NA	NA
1967	18	16	15	NA	NA
1968	18	16	16	NA	NA
1969	18	17	16	NA	NA
1970	18	17	17	NA	NA
1971	19	17	17	NA	1
1972	18	17	17	NA	NA
1973	19	18	17	NA	NA
1974	19	18	18	NA	NA
1975	19	19	18	NA	NA
1976	19	19	19	NA	NA
1977	20	19	19	NA	NA
1978	20	20	19	NA	NA
1979	20	20	20	NA	14
1980	20	20	20	NA	15
1981	21	20	20	NA	NA
1982	21	20	20	NA	NA
1983	21	20	20	NA	NA
1984	21	21	20	NA	NA
1985	21	21	21	NA	18
1986	21	21	21	NA	18
1987	21	21	21	NA	19
1988	22	21	21	NA	19
1989	22	21	21	NA	20
1990	22	22	22	NA	20
1991	23	22	22	NA	21
1992	23	22	22	NA	21
1993	23	22	22	NA	21
1994	23	22	22	NA	21
1995	23	22	22	NA	22
1996	24	23	23	NA	23
1997	24	24	24	NA	23
1998	25	24	24	NA	23
1999	25	24	24	NA	24
2000	25	24	24	2	24
2001	25	24	24	5	24
2002	25	25	25	8	25
2003	25	25	25	10	25
2004	25	25	25	11	NA
2005	25	25	25	14	NA
2006	26	25	25	16	NA

Notes: Since the 1980s, data has been collected via an Establishment Survey (ES) - a continuous survey of private homes based upon a large sample of households (currently 52,000 per annum).

All homes: the estimated number of private households in the UK

TV homes: households with at least one working television set

ITV homes: TV homes able to receive ITV

Digital TV homes: households with at least one working set receiving digital TV

Colour TV homes: households with at least one working colour television set

Sources: Broadcasters' Audience Research Board Ltd. See <http://www.barb.co.uk/>

Fig 2.12 *Television ownership in private domestic households, 1956-2006, United Kingdom*

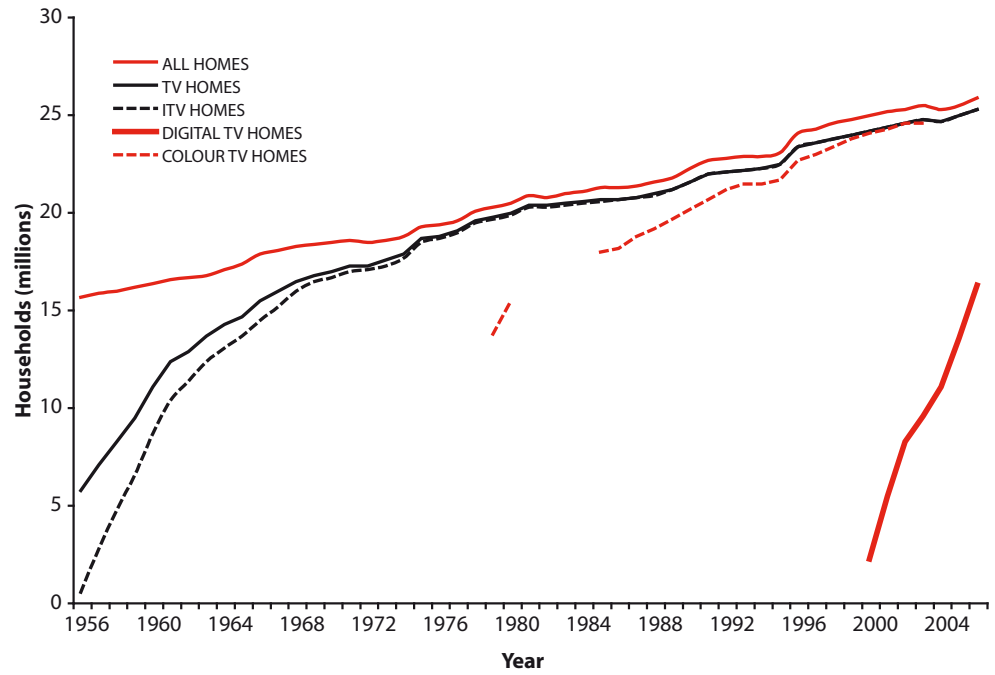


Table 2.13 Average distance travelled by mode of travel, Great Britain, 1975/76 to 2004

Average miles travelled per year	1975/1976	1985/1986	1992/1994	1998/2000	2002	2003	2004
Walk	255	244	199	192	189	192	196
Bicycle	51	44	38	39	33	34	36
Private hire bus	150	131	110	107	124	135	131
Car/van driver	1,971	2,425	3,205	3,560	3,555	3,465	3,469
Car/van passenger	1,401	1,600	2,030	2,011	2,065	2,048	1,999
Motorcycle/moped	47	51	32	30	33	36	34
Other private vehicles	16	33	43	26	20	27	22
Bus in London	57	39	42	40	42	51	50
Other local bus	372	258	217	205	214	213	206
Non-local bus	54	109	96	99	58	86	75
LT Underground	36	44	50	57	62	54	51
Surface rail	289	292	298	371	373	347	384
Taxi/minicab	13	27	38	58	55	49	49
Other public including air, ferries, light rail, etc.	18	22	41	45	56	96	64
All modes	4,740	5,317	6,439	6,840	6,879	6,833	6,762
Unweighted base		25,785	24,671	21,868	16,886	19,467	19,199

Notes: Short walks believed to be under-recorded in 2002 and 2003 compared with other years
 Subject to Crown Copyright
 Unweighted base not provided for 1975/1976

Source: Department for Transport (2005). National Travel Survey 2004.
http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.bcst?n=14133&l=4
 Department for Transport (2001). National Travel Survey 1991/2001: update.
http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.bcst?n=7221&l=4

Fig 2.13 Average distance travelled by mode of travel, Great Britain, 1975/76 to 2004

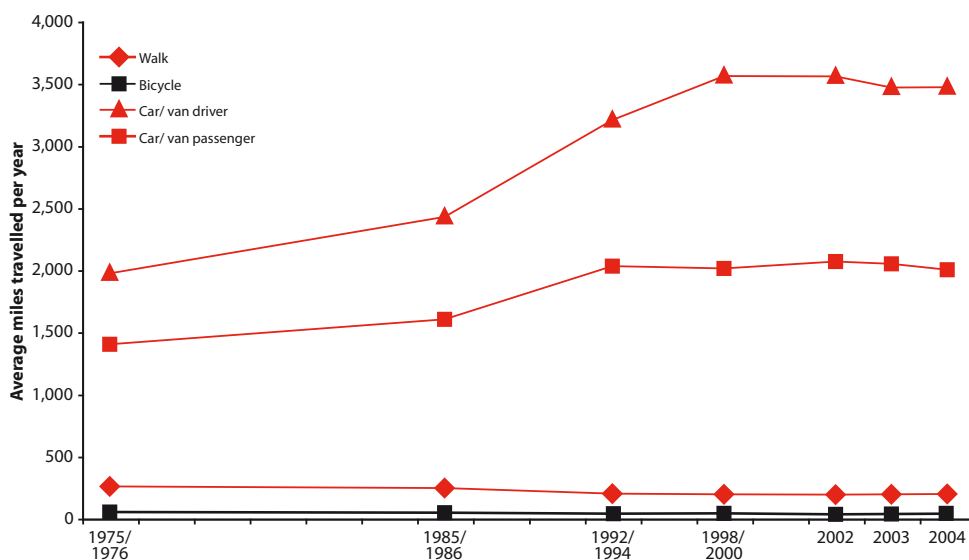


Table 2.14 Trips per person per year by mode of travel, 1975/76 to 2004, Great Britain

Average trips travelled per year	1975/1976	1985/1986	1992/1994	1998/2000	2002	2003	2004
Walk	325	350	306	271	243	245	246
Bicycle	30	25	18	16	15	14	15
Car/van driver	262	317	389	411	419	401	399
Car/van passenger	167	200	229	229	230	226	226
Motorcycle	9	9	5	3	3	3	3
Other private	15	14	11	8	9	8	8
Bus in London	14	11	12	11	11	13	13
Other local bus	93	72	54	47	46	47	45
Non-local bus	1	2	2	2	1	1	1
LT Underground	4	6	6	7	7	6	5
Surface rail	11	12	11	12	11	12	14
Taxi/minicab	3	7	9	12	11	11	10
Other public	..	1	1	2	2	2	2
All modes	935	1,024	1,053	1,029	1,008	990	988
Unweighted base		25,785	24,671	21,868	16,886	19,467	19,199

Notes: Short walks believed to be under-recorded in 2002 and 2003 compared with other years
 Subject to Crown Copyright
 Unweighted base not provided for 1975/1976

Source: Department for Transport (2005). National Travel Survey 2004.
http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.bcst?n=14133&l=4
 Department for Transport (2001). National Travel Survey 1991/2001: update.
http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.bcst?n=7221&l=4

Fig 2.14 Trips per person per year by mode of travel, 1975/76 to 2004, Great Britain

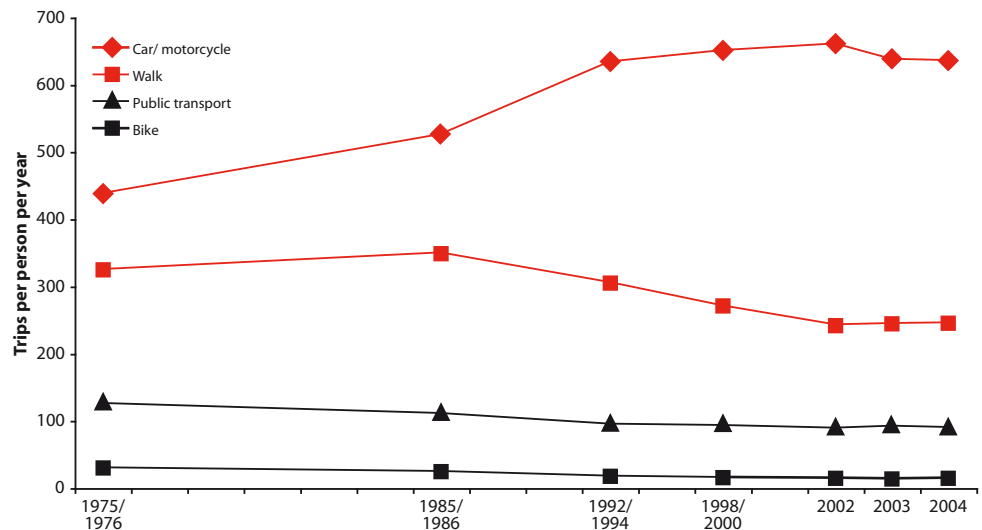


Table 2.15 Proportion of households with car or van ownership, 1972 to 2004, Great Britain

Number of households with:	1972	1975	1981	1985	1991	1995	1996	1998	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No car or van	48	44	41	38	32	29	30	28	28	27	28	27	26	27
One car or van	43	45	44	45	44	45	46	44	45	45	44	45	45	45
Two cars or vans	8	10	12	14	19	22	21	23	22	22	23	22	24	24
Three or more cars or vans	1	1	2	3	4	4	4	6	6	6	5	5	5	5
Weighted base (000s)									24,450	24,845	24,592	24,529	24,423	24,688
Unweighted base	11,624	11,929	11,989	9,963	9,910	9,758	9,158	8,636		8,221	8,989	8,620	10,283	8,700

Notes: Trend tables show unweighted and weighted figures for 1998 to give an indication of the effect of the weighting.
For the weighted data (1998 and 2000 to 2004) the weighted base (000s) is the base for percentages.
Unweighted data (up to 1998) are based on the unweighted sample.

Source: Department for Transport, Scottish Executive and Welsh Assembly. (2005). Transport statistics 2005. London: ONS.

Fig 2.15 Proportion of households with car or van ownership, 1951 to 2004, Great Britain

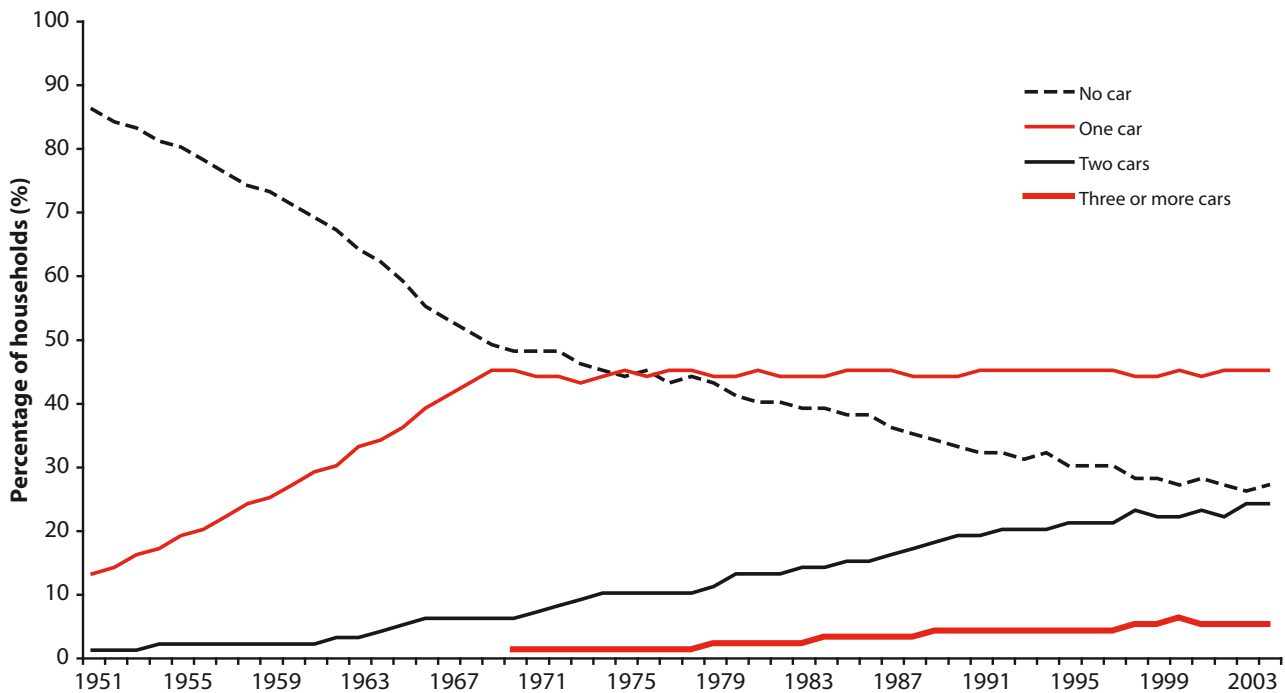


Table 2.16 *Proportion of students with strong beliefs in the importance of physical activity for health in relation to frequency of leisure time activity*

Level of Physical Activity	MEN	WOMEN	TOTAL
	%	%	(count)
Inactive	30	33	5,706
Low freq PA	49	52	8,783
Recommended PA	69	67	4,565
Total (count)	8,385	10,669	19,054

Notes: *Low frequency PA: Five or fewer episodes in the past 2 weeks*
Recommended PA: Six or more episodes in the past two weeks

Source: *Haase A, Steptoe A, Sallis JF, Wardle J. Leisure-time physical activity in university students from 23 countries: associations with health beliefs, risk awareness, and national economic development. Prev Med. 2004 Jul;39(1):182-90.*

Fig 2.16 *Proportion of students with strong beliefs in the importance of physical activity for health in relation to frequency of leisure time activity*

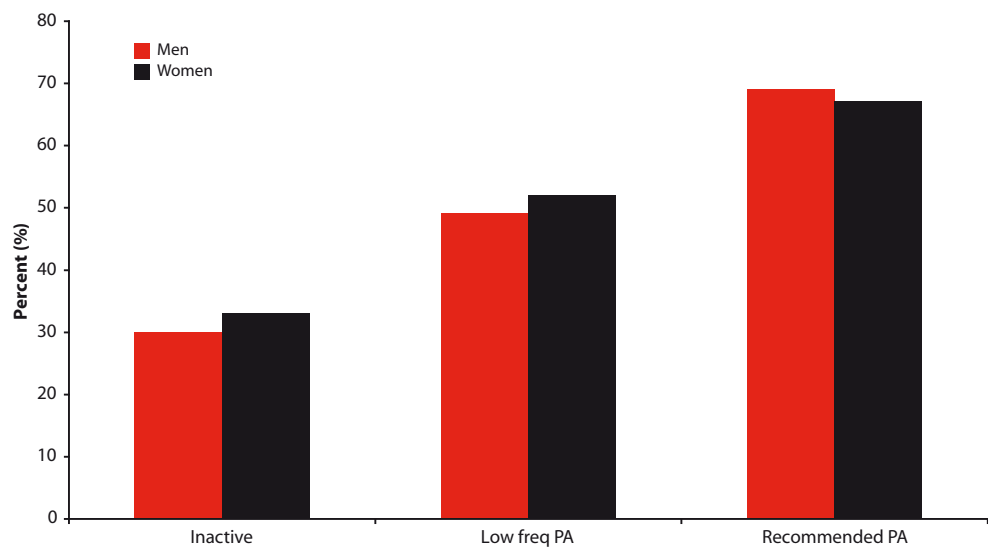


Table 2.17 Cost to the NHS of physical inactivity related ill-health, 2002

Disease categories	Costs to NHS (£billions)	Cost due to physical inactivity (£billions)
<i>Diseases related to physical inactivity</i>	6.4	1.06
Ischaemic heart disease	2.3	0.53
Cerebrovascular disease	2.9	0.35
Breast cancer	0.2	0.03
Colon/rectum cancer	0.4	0.06
Diabetes Mellitus	0.7	0.10
Sub total		
<i>All disease categories</i>		
Infectious diseases	0.7	
Cancer (malignant and other neoplasms)	2.9	
Cardiovascular diseases	8.5	
Musculoskeletal diseases	5.5	
Mental and nervous system disorders	17.6	
Respiratory diseases	4.4	
Injuries	2.7	
Other	27.9	
Total	70.2	

Notes: Diseases related to physical inactivity are a subset of the cardiovascular disease group.

*Source: Allender S, Foster C, Scarborough P, Rayner M. (2006). The burden of physical activity related ill health in the UK. Journal of Epidemiology and Community Health, in press.
World Health Organization. World Health Report 2002. 2003; WHO: Geneva.*

3. Overweight and obesity

Overweight and obesity increase the risk of CHD. As well as being an independent risk factor, obesity is also a major risk factor for high blood pressure, raised blood cholesterol, diabetes and impaired glucose tolerance¹.

The adverse effects of excess weight are more pronounced when fat is concentrated in the abdomen. This is known as central or abdominal obesity and is assessed using the waist to hip ratio².

The World Health Organization's World Health Report 2002 estimated that over 7% of all disease burden in developed countries was caused by raised body mass index (BMI), and that around a third of CHD and ischaemic stroke and almost 60% of hypertensive disease in developed countries was due to overweight³.

More recently the INTERHEART case-control study estimated that 63% of heart attacks in Western Europe and 28% of heart attacks in Central and Eastern Europe were due to abdominal obesity (a high waist to hip ratio), and those with abdominal obesity were at over twice the risk of a heart attack compared to those without⁴. This study also found that abdominal obesity was a much more significant risk factor for heart attack than BMI.

Public health targets

In 2004 in England an obesity target for children was introduced to halt the year-on-year rise in obesity in children under 11 by 2010. A more general statement has been made that increasing rates of obesity in the population should be addressed (Table 3.1). There are currently no targets for overweight and obesity in Scotland, Wales or Northern Ireland.

Overall prevalence

Data from recent Health Surveys showed that the rate of overweight (a BMI of 25–30 kg/m²) is similar for men (44%) and women (35%) in England, Scotland (43% and 34%) and Wales (42% and 31%).

Obesity rates (a BMI of more than 30 kg/m²) were similar for men and women in England (23% and 24%) and Scotland (22% and 26%) but lower in Wales (17% and 18%) (Table 3.2 and Figures 3.2a and 3.2b).

In England, around a third of men (33%) and women (30%) had an elevated waist to hip ratio indicating abdominal obesity. The proportion of Scottish men (29%) with abdominal obesity was similar to that in England although the rate was higher among Scottish women (37%) (Table 3.3).

Sex and age differences

The prevalence of overweight and obesity increased with age. In England about 31% of men and 38% of women aged 16–24 were overweight or obese while 78% of men and 70% of women aged 55–64 were overweight or obese (Table 3.2 and Figures 3.2a and 3.2b). The pattern was similar for Scottish men (31%) and women (39%) aged 16–24 and for men (80%) and women (73%) aged 55–64. Compared to the rest of the UK, the prevalence of overweight and obesity in Wales was lower among men (29%) and women (26%) in the 16–24 age group, and men (68%) and women (61%) in the 55–64 age group.

The prevalence of abdominal obesity also increased with age, especially in men. About 4% of English men, 11% of English women, 3% of Scottish men and 20% of Scottish women aged 16–24 had abdominal obesity compared with 57% of English men, 45% of English women, 46% of Scottish men and 51% of Scottish women aged 65–74 (Table 3.3).

Children and young people

The classification of overweight and obesity in children and adolescents is more problematic than in adults. Constant changes in body composition during growth mean that the relationship between BMI and adiposity during childhood is age-dependent, and further complicated by race and gender. There is no clear agreement on the best way to define overweight and obesity in children. The International Obesity Taskforce (IOTF) has developed a new international classification based on age and sex-specific BMI cut-off points. UK data is also reported using the National BMI percentile classification where children are classified as overweight or obese using the 85th and 95th percentiles as cut points. These two methods of classification result in different estimates of childhood overweight and obesity⁵.

Using the IOTF classification, a third of boys (33%) and more than a third of girls (35%) in England aged 2–15 years were either overweight or obese. In Scotland more than a third of boys (35%) and 30% of girls were overweight or obese (Table 3.4).

Temporal trends

Overweight and obesity are increasing rapidly. In England, the percentage of adults aged 16–64 who were obese has increased by over 50% in the last decade (Table 3.5 and Figure 3.5). This increase in obesity was particularly marked in men among whom rates have tripled since the mid-1980s, with men now as likely to be obese as women. Between 1995 and 2003 in Scotland the rate of obesity increased by 50% in men and increased by more than 40% in women.

High levels of overweight and obesity among children are likely to exacerbate the trend towards overweight and obesity in the adult population, since compared to thin children, obese children have a high risk of becoming overweight adults⁷. Between 1995 and 2004 the prevalence of obesity almost doubled among English boys (from 11% to 19%) and increased by over a half in girls (from 12% to 19%) (Table 3.6a). Between 1998 and 2003 obesity in Scottish boys increased from 14% to 18% while obesity among girls remained steady at 14% (Table 3.6b).

Socio-economic differences

Obesity is more common in adults employed in manual occupations, particularly in women. In England 33% of women working in semi routine and routine occupations had a BMI of more

than 30 kg/m² compared to less than 21% of those employed in a managerial and professional role (Table 3.7). In Scotland 36% of women working in semi routine and routine occupations had a BMI of more than 30 kg/m² compared to less than 23% of those employed in a managerial and professional role.

Ethnic differences

Levels of general and abdominal obesity varied with ethnicity in both men and women in England. Compared with the general population, levels of obesity were much lower in Black African, Indian, Pakistani, and, most markedly, Bangladeshi and Chinese men, who were around four times less likely to be obese than men in the general population (Table 3.8 and Figure 3.8). Black Caribbean and Irish men had similar levels of obesity to the general population. Despite low levels of general obesity, Pakistani, Indian and Bangladeshi men had similar levels of raised waist to hip ratio compared to the general population. Black Caribbean, Black African and Chinese men were less likely to have a raised waist to hip ratio (Table 3.9).

Among women, obesity prevalence was high for Black Caribbean, Black African and Pakistani women and low for Chinese women (Table 3.8 and Figure 3.8). Again the pattern was different for levels of central obesity. Black Caribbean, Pakistani, and Irish women all had levels of central obesity above that of the general female population, while Bangladeshi women were much more likely to have a raised waist to hip ratio as women in the general population (Table 3.9).

International differences

Data from the WHO SuRF Report 2 showed that the prevalence of overweight and obesity in the UK was among the highest in Europe. Worldwide prevalence of overweight and obesity in the UK was in the highest quintile for men and the second highest for women (Table 3.10 and Figures 3.10a and 3.10b).

In 2006, the International Obesity TaskForce collated data on overweight and obesity in children worldwide. Caution should be used in interpreting these data as the studies used different age groups and different definitions of overweight and obesity. For boys, the countries with overweight (including obesity) levels of 30% or more were Canada (33%), Mexico (32.3%), Kuwait (30%), Malta (32.7%), Spain (31%) and New Zealand (30%). For girls they were Mexico (31.1%), Bahrain (38.5%), Kuwait (31.8%), Malta (38.5%), Portugal (34.3%) and New Zealand (30%). Ethiopia, Mali, Senegal and Nepal had very low levels of under 0.1% for both boys and girls (Table 3.11).

Hospital visits

In England, Hospital Episode Statistics (HES) showed that the number of hospital admissions where obesity was given as the primary diagnosis rose from just under 1,100 in 1999/00 to over 2,200 in 2004/05⁸. The percentage of admissions with obesity as the main cause doubled during this time and accounted for between 1 and 2 of every 10,000 admissions (Table 3.14).

Economic costs

Between 1998 and 2004 there has been a 17-fold increase in the drugs used to treat obesity (Table 3.19). Annual expenditure on drugs used to treat obesity was more than £30 million in 2004 (Figure 3.19).

Diseases attributable in some part to overweight and obesity include ischaemic heart disease, stroke, diabetes mellitus and some cancers. It is estimated that over three billion pounds of direct costs to the National Health Service could be avoided each year if all members of the population were at a healthy weight (Table ref).

1. World Health Organization (2000) *Obesity – preventing and managing the global epidemic. Report of a WHO Consultation on Obesity*. World Health Organization: Geneva.
2. *Abdominal obesity is commonly defined as a waist to hip ratio above 0.95 in men and above 0.85 in women.*
3. World Health Organization (2002) *The World Health Report 2002. Reducing Risks, Promoting Healthy Life*. World Health Organization: Geneva. *The WHO uses a different definition of overweight for these calculations than is presented in the rest of this document. Please see the source for further details.*
4. Yusuf S, Hawken S, Ounpuu S, Dans T, Avezum A, Lanas F, McQueen M, Budaj A, Pais P, Varigo J, Lisheng A, on behalf of the INTERHEART Study Investigators (2004) *Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART Study): case-control study*. *The Lancet*; 364: 937–952.
5. *For details of the International classification system see chapter nine of Department of Health (2003) Health Survey for England 2002. The Stationery Office: London. Because of differences in definition and measurement, direct comparison of adult (Table 3.2) and childhood (Table 3.4) tables in this chapter is inappropriate.*
6. *This finding should be viewed with caution since it has been suggested that the International classification may exaggerate sex differences by under-estimating prevalence for boys. Overweight and obesity estimates derived using the alternative National BMI percentiles classification showed no marked sex differences.*
7. Serdula M, Ivery D, Coates R, Freedman D, Williamson D and Byers T (1993) *Do obese children become obese adults? A review of the literature*. *Prev Med* 22:167–177.
8. Department of Health (2006) *Hospital Episode Statistics*. NHS Health and Social Care Information Centre.

Table 3.1 Obesity targets for the United Kingdom

ENGLAND¹	
Children	To halt the year-on-year rise in obesity among children under 11 by 2010 in the context of a broader strategy to tackle obesity in the population as a whole
SCOTLAND	No target set
WALES	No target set
NORTHERN IRELAND	No target set

1. Department of Health (2004) National Standards, Local Action: Health and Social Care Standards and Planning Framework 2005/06 and 2007/08. DH: London. PSA Target 3. www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPAmpGBrowsableDocument/fs/en?CONTENT_ID=4096173&chk=V8WLUg

Table 3.2 *Body mass index by sex and age, England, Scotland and Wales, latest available year*

ENGLAND 2004	All ages	16-24	25-34	35-44	45-54	55-64	65-74	75 & over
MEN	%	%	%	%	%	%	%	%
BMI (kg/m²)								
20 or under	5	20	4	2	1	1	2	3
Over 20-25	29	49	37	22	22	22	22	24
Over 25-30	44	23	41	50	48	48	48	54
Over 30-40	22	7	18	25	28	28	27	19
Over 40	1	1	0	0	2	2	1	0
All over 30 (obese)	23	8	18	25	30	30	28	19
<i>Weighted base</i>	39,244	5,920	6,806	8,110	6,584	5,651	3,912	2,260
<i>Unweighted base</i>	2,444	255	388	478	390	424	319	190
WOMEN								
BMI (kg/m²)								
20 or under	6	17	9	6	4	2	3	4
Over 20-25	36	46	43	41	34	29	28	30
Over 25-30	35	25	31	30	36	37	40	46
Over 30-40	21	11	16	21	23	30	24	20
Over 40	3	2	2	3	3	3	4	0
All over 30 (obese)	24	12	18	24	26	32	28	20
<i>Weighted base</i>	39,803	5,345	6,513	7,984	6,493	6,023	4,172	3,273
<i>Unweighted base</i>	3,135	294	453	649	527	538	393	281
SCOTLAND 2003	All ages	16-24	25-34	35-44	45-54	55-64	65-74	75+
MEN	%	%	%	%	%	%	%	%
BMI (kg/m²)								
18.5 or under	2	8	1	1	1	1	1	1
Over 18.5-25	33	62	39	30	22	19	22	33
Over 25-30	43	23	44	45	49	47	49	48
Over 30-40	21	7	16	22	24	31	26	17
Over 40	2	1	1	2	3	2	1	1
All over 30 (obese)	22	8	16	24	28	33	27	18
<i>Weighted base</i>	3,217	495	505	647	563	492	335	180
<i>Unweighted base</i>	3,016	286	380	629	523	550	421	227
WOMEN								
BMI (kg/m²)								
18.5 or under	2	5	2	1	2	0	0	3
Over 18.5-25	38	56	48	41	34	27	26	33
Over 25-30	34	26	29	32	38	41	34	37
Over 30-40	23	12	18	21	22	27	37	26
Over 40	3	1	2	5	5	5	4	0
All over 30 (obese)	26	13	21	26	26	32	41	27
<i>Weighted base</i>	3,458	473	533	687	574	510	385	297
<i>Unweighted base</i>	3,684	336	486	752	666	668	459	317
WALES 2003/04	All ages	16-24	25-34	35-44	45-54	55-64	65-74	75+
MEN	%	%	%	%	%	%	%	%
BMI (kg/m²)								
Less than 18.5	2	7	2	1	1	0	2	2
18.5 to under 25	39	64	43	33	31	31	32	47
25 to under 30	42	22	39	45	46	48	49	42
All 30 plus (obese)	17	7	16	21	23	20	18	9
<i>Unweighted base</i>	7,201	826	923	1,303	1,264	1,293	957	635
WOMEN								
BMI (kg/m²)								
Less than 18.5	3	10	3	2	1	1	2	5
18.5 to under 25	48	64	54	50	42	37	38	51
25 to under 30	31	19	26	29	34	38	37	31
All 30 plus (obese)	18	7	16	19	23	24	23	13
<i>Unweighted base</i>	8,243	903	1,120	1,499	1,401	1,369	1,041	910

Notes: Adults aged 16 and above with a valid height and weight measurement.
 English data are weighted for non-response.
 Welsh data is self-reported height and weight.
 The categories of BMI vary by country.

Sources: Department of Health (2005) Health Survey for England 2004. See <http://www.ic.nhs.uk/pubs/hlthsvyeng2004upd>
 The Scottish Executive (2005) The Scottish Health Survey 2003. The Stationery Office, Edinburgh.
 National Assembly for Wales (2005) Welsh Health Survey 2003/04.
<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/health/2005/hs2003-04/hs2003-04.htm>

Fig 3.2a *Prevalence of overweight and obesity by age, men, latest available year, England, Scotland and Wales*

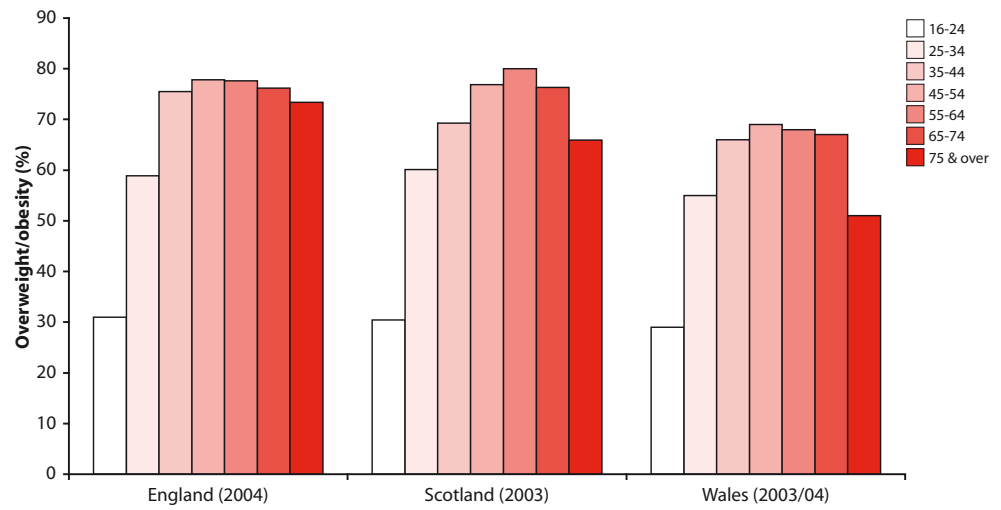


Fig 3.2b *Prevalence of overweight and obesity by age, women, latest available year, England, Scotland and Wales*

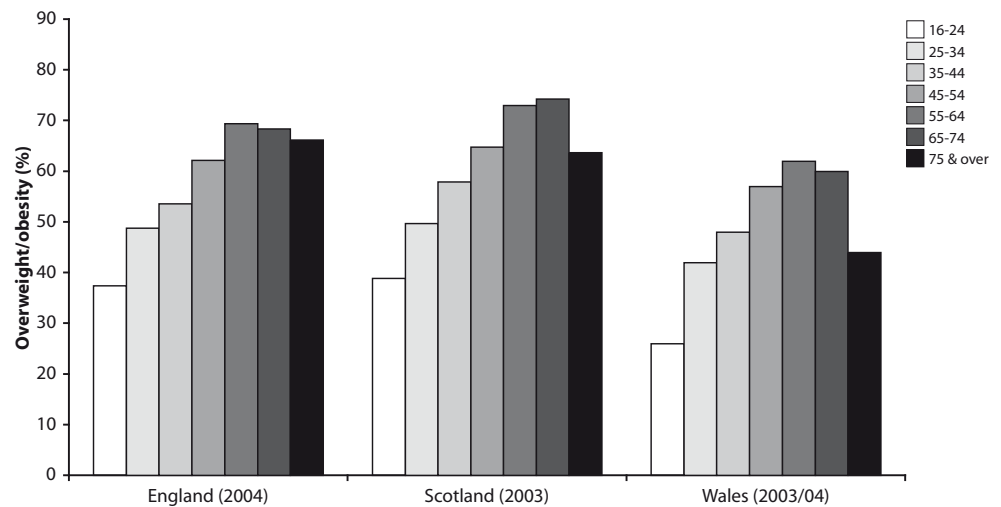


Table 3.3 *Prevalence of a raised waist to hip ratio by sex and age, 2003, England and Scotland*

	All ages	16-24	25-34	35-44	45-54	55-64	65-74	75 & over
	%	%	%	%	%	%	%	%
ENGLAND								
MEN	33	4	14	32	41	54	57	51
<i>Base</i>	5,397	771	969	1,074	891	779	551	363
WOMEN	30	11	18	26	28	42	45	54
<i>Base</i>	5,554	752	891	1,044	895	809	606	556
SCOTLAND								
	All ages	16-24	25-34	35-44	45-54	55-64	65-74	75 & over
	%	%	%	%	%	%	%	%
MEN	29	3	16	26	35	45	46	43
<i>Weighted base</i>	2,532	370	405	506	442	377	269	165
<i>Unweighted base</i>	2,356	175	274	459	413	44	361	230
WOMEN	37	20	26	34	38	44	51	53
<i>Weighted base</i>	2,679	347	401	512	430	388	311	290
<i>Unweighted base</i>	2,850	204	343	567	521	544	381	290

Notes: Raised waist-hip ratio for men is defined as 0.95 and over and for women is 0.85 and over.

Sources: Department of Health (2004) Health Survey for England 2003.

See www.dh.gov.uk/PublicationsAndStatistics/PublishedSurvey/HealthSurveyForEngland/fs/en

The Scottish Executive (2005) The Scottish Health Survey 2003. The Stationery Office: Edinburgh.

Table 3.4 *Prevalence of overweight and obesity in children by sex and age, latest available year, England and Scotland*

	AGE					
	2-15 years %	2-4 %	5-7 %	8-10 %	11-12 %	13-15 %
ENGLAND 2004						
BOYS						
Overweight	14			15		13
Obese	19			16		24
Total overweight and obese	33			31		37
<i>Base</i>	8,833			5,368		3,466
GIRLS						
Overweight	17			15		19
Obese	19			13		27
Total overweight and obese	35			28		46
<i>Base</i>	8,228			4,901		3,328
SCOTLAND 2003						
BOYS						
Overweight	17	15	21	14	20	14
Obese	18	10	17	20	22	20
Total overweight and obese	35	24	39	34	42	34
<i>Weighted base</i>	1,249	220	260	274	212	284
<i>Unweighted base</i>	1,215	238	263	256	184	274
GIRLS						
Overweight	16	17	14	14	14	22
Obese	14	10	16	16	14	13
Total overweight and obese	30	27	29	30	28	35
<i>Weighted base</i>	1,191	209	280	245	204	254
<i>Unweighted base</i>	1,223	219	286	253	203	262

Notes: English and Scottish children were defined as overweight or obese using the International classification age and sex-specific BMI percentile cut-points. See sources for details.

Sources: Department of Health (2005) *Health Survey for England 2004*. The Stationery Office: London.
The Scottish Executive (2005) *The Scottish Health Survey 2003*. The Stationery Office: Edinburgh.

Table 3.5 Prevalence of overweight and obesity by sex, adults aged 16-64 years, 1986/87-2004, England, and 1995-2003, Scotland

Body mass index (kg/m ²)	1986/87	1991/92	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
ENGLAND														
MEN														
20 or less	6	6	5	5	4	4	4	4	5	5	4	5	4	5
Over 20-25	49	41	38	37	36	35	34	34	33	30	28	30	29	29
Over 25-30	38	40	44	44	44	45	45	46	44	45	47	43	44	44
More than 30	7	13	13	14	15	16	17	17	19	21	21	22	23	23
Base	<i>n/a</i>	<i>n/a</i>	7,247	6,795	6,707	6,997	3,635	6,600	3,204	3,260	6,267	2,969	5,966	2,444
WOMEN														
20 or less	11	9	7	7	7	7	7	7	7	6	6	6	6	6
Over 20-25	53	50	44	44	43	41	40	40	39	39	38	37	37	36
Over 25-30	24	26	32	31	33	34	33	32	33	34	33	34	33	35
More than 30	12	15	16	17	18	18	20	21	21	21	24	23	23	24
Base	<i>n/a</i>	<i>n/a</i>	8,037	7,884	7,729	8,064	4,254	7,730	3,699	3,703	7,414	3,509	7,090	3,135
Body mass index (kg/m²)														
SCOTLAND														
MEN														
Over 25-30					56			61					64	
More than 30					16			20					24	
Weighted base					3,672			3,673					2,702	
Unweighted base					33			3,110					2,368	
WOMEN														
Over 25-30					47			52					57	
More than 30					19			23					27	
Weighted base					3,632			3,572					2,776	
Unweighted base					4,005			3,783					2,908	

Sources: Department of Health (2005) Health Survey for England 2004, and previous surveys. See <http://www.ic.nhs.uk/pubs/hls/hsyeng2004upd>
 Earlier figures, Central Health Monitoring Unit, Department of Health, personal communication.
 The Scottish Executive (2005) The Scottish Health Survey 2003. The Stationery Office, Edinburgh, and previous surveys.

Fig 3.5 *Prevalence of obesity by sex, adults aged 16-64 years, 1995-2004, England and Scotland*

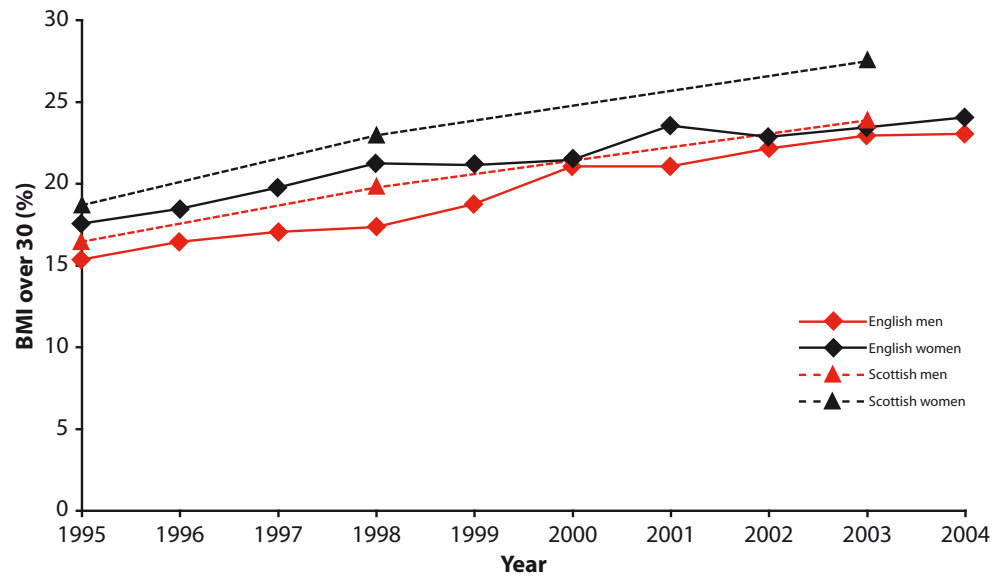


Table 3.6a Prevalence of overweight and obesity in children by sex and age, 1995 - 2004, England

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%	%	%	%	%
BOYS										
Aged 2-10										
Overweight	13	14	13	15	14	14	16	13	15	15
Obese	10	11	11	11	16	12	14	15	15	16
Overweight including obese	22	25	24	26	30	26	29	29	30	30
Aged 11-15										
Overweight	13	15	13	15	15	10	14	14	14	13
Obese	14	14	16	16	17	19	19	20	20	24
Overweight including obese	27	29	28	31	32	29	33	34	35	37
All (aged 2-15)										
Overweight	13	14	13	15	14	12	15	14	15	14
Obese	11	12	13	13	16	14	15	17	17	19
Overweight including obese	24	26	26	28	31	27	31	31	32	33
Weighted base	1,918	2,132	3,063	1,981	977	877	1,653	3,745	1,452	8,833
GIRLS										
Aged 2-10										
Overweight	13	11	12	12	13	12	14	13	13	15
Obese	10	10	11	12	13	12	13	16	12	13
Overweight including obese	23	21	23	24	26	23	27	29	26	28
Aged 11-15										
Overweight	14	14	15	16	14	14	18	15	16	19
Obese	15	15	16	17	15	18	18	19	22	27
Overweight including obese	29	29	32	33	29	33	35	34	38	46
All (aged 2-15)										
Overweight	13	12	13	14	14	13	15	14	15	17
Obese	12	12	12	14	14	14	14	17	16	18
Overweight including obese	25	24	26	27	27	27	30	31	31	35
Weighted base	1,901	2,014	3,069	1,872	950	841	1,699	3,636	1,393	8,228

Notes: Children were defined as overweight or obese using the 85th and 95th percentiles of the UK reference curves (known as the National BMI percentile classification). See source for details. From 2003 data were also weighted for non response. Data weighted for child selection only are provided for consistency with previous years.

Source: Department of Health (2005) Health Survey for England 2004, and previous surveys. See <http://www.ic.nhs.uk/pubs/hsechildobesityupdate/excelsheets/file>

Table 3.6b Prevalence of overweight and obesity in children by sex and age, 1998 and 2003, Scotland

	1998	2003		1998	2003
BOYS	%	%	GIRLS	%	%
Aged 2-6			Aged 2-6		
Overweight	16	19	Overweight	14	16
Obese	12	13	Obese	14	12
Overweight including obese	28	32	Overweight including obese	27	28
Aged 7-11			Aged 7-11		
Overweight	14	15	Overweight	16	15
Obese	15	20	Obese	14	15
Overweight including obese	29	35	Overweight including obese	30	30
Aged 12-15			Aged 12-15		
Overweight	13	16	Overweight	16	18
Obese	16	21	Obese	15	15
Overweight including obese	29	37	Overweight including obese	31	33
All (aged 2-15)			All (aged 2-15)		
Overweight	14	17	Overweight	15	16
Obese	14	18	Obese	14	14
Overweight including obese	29	35	Overweight including obese	29	30
Weighted base	988	1,249	Weighted base	932	1,191
Unweighted base	1,788	1,215	Unweighted base	1,706	1,223

Notes: Children were defined as overweight or obese using the 85th and 95th percentiles of the UK reference curves (known as the National BMI percentile classification). For details and base for each age group, see source.

Source: The Scottish Executive (2005) The Scottish Health Survey 2003. The Stationery Office, Edinburgh.

Fig 3.6 Prevalence of obese children aged 2-15 years, 1998 to 2003, England and Scotland

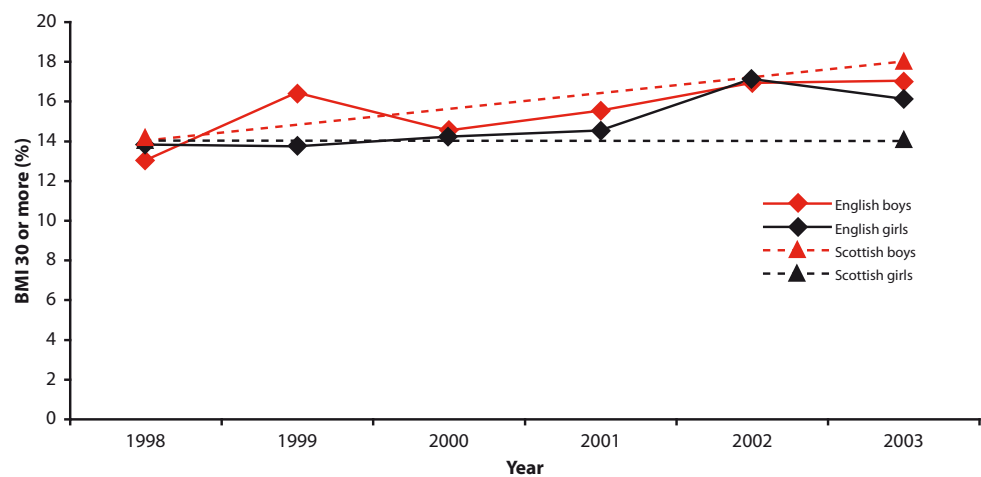


Table 3.7 Prevalence of overweight and obesity by sex and socio-economic classification, 2003, England and Scotland, 2003/04, Wales

Body mass index (kg/m ²)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
%	%	%	%	%	%
ENGLAND 2003					
MEN					
25-30 (overweight)	43	43	38	39	39
Over 30 (obese)	21	20	27	24	23
<i>Base</i>	2,706	459	754	879	1,615
WOMEN					
25-30 (overweight)	28	29	35	29	28
Over 30 (obese)	21	21	22	32	33
<i>Base</i>	2,540	612	671	758	1,815
SCOTLAND 2003					
MEN					
25-30 (overweight)	45	41	45	39	38
Over 30 (obese)	21	27	27	28	24
<i>Weighted base</i>	1,227	215	300	445	973
<i>Unweighted base</i>	1,140	182	318	429	898
WOMEN					
25-30 (overweight)	35	29	23	29	28
Over 30 (obese)	23	33	27	32	36
<i>Weighted base</i>	1,248	315	285	391	1,125
<i>Unweighted base</i>	1,307	326	327	416	1,210
WALES 2003/04					
ALL					
Over 25 (overweight & obese)	53	52	55	56	56
<i>Unweighted base</i>	5,332	1,182	1,791	2,352	4,510

Notes: Adults aged 16 and over
Age-standardised percentages: see source for method of age-standardisation

Sources: Department of Health (2005) Health Survey for England 2004. See <http://www.ic.nhs.uk/pubs/hlthsvyeng2004upd>
The Scottish Executive (2005) The Scottish Health Survey 2003. The Stationery Office: Edinburgh.
National Assembly for Wales (2005) Welsh Health Survey 2003/04.
<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/health/2005/hs2003-04/hs2003-04.htm>

Table 3.8 *Prevalence of obesity by sex and ethnic group, 2004, England*

	General population	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish
	%	%	%	%	%	%	%	%
MEN	23	25	17	14	15	6	6	25
<i>Unweighted base</i>	2,444	317	297	482	346	330	307	420
WOMEN	23	32	39	20	28	17	8	21
<i>Unweighted base</i>	3,135	459	332	546	391	353	308	555

Notes: Adults aged 16 and over.
Obesity is defined as a BMI of over 30; age-standardised percentages; see source for method of age-standardisation.

Source: Department of Health (2005) Health Survey for England 2004. See <http://www.ic.nhs.uk/pubs/blthsvyeng2004upd>

Fig 3.8 *Prevalence of obesity by sex and ethnic group, 2004, England*

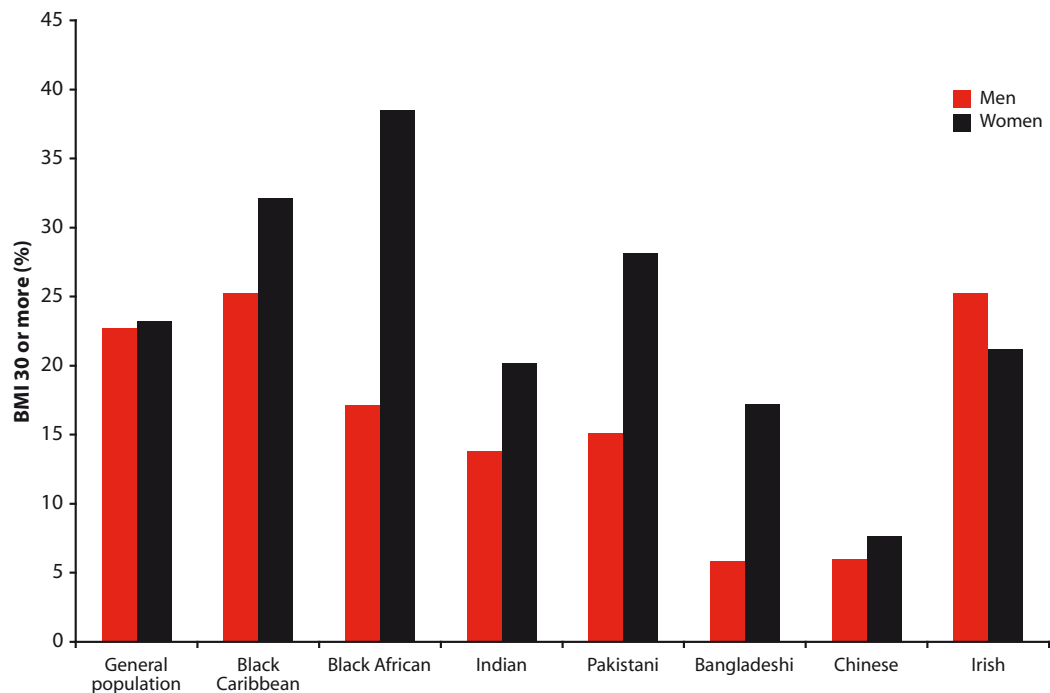


Table 3.9 Prevalence of a raised waist to hip ratio by sex and ethnic group, 2004, England

	General population	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish
	%	%	%	%	%	%	%	%
MEN	33	25	16	36	37	32	17	36
<i>Unweighted base</i>	4,692	209	156	310	197	138	182	311
WOMEN	30	37	32	30	39	50	22	37
<i>Unweighted base</i>	5,995	314	200	345	224	171	185	405

Notes: Adults aged 16 and over.

A raised waist-hip ratio for men is 0.95 and over and for women is 0.85 and over; age-standardised percentages; see source for method of age-standardisation. General population figures taken from 2003 Health Survey for England.

Source: Department of Health (2005) Health Survey for England 2004. See <http://www.ic.nhs.uk/pubs/hlthsvyeng2004upd>

Table 3.10 Prevalence estimates of overweight and obesity for 2002, and projections for 2005 and 2010, by sex, adults aged 15 and above, the World

	Prevalence of overweight, Male %			Prevalence of overweight, Female %			Prevalence of obesity, Male %			Prevalence of obesity, Female %		
	2002	2005	2010	2002	2005	2010	2002	2005	2010	2002	2005	2010
WHO Africa Region												
Angola	19.9	21.3	23.8	31.4	33.6	37.2	1.6	1.9	2.4	5.9	6.9	8.7
Benin	15.8	17.9	21.9	32.8	39.1	43.8	0.7	1.0	1.5	6.2	9.3	12.1
Botswana	35.5	37.8	41.6	46.9	49.4	53.5	4.6	5.4	6.9	12.9	14.6	17.7
Burkina Faso	10.6	12.1	15.1	15.8	16.0	19.4	0.3	0.4	0.6	1.1	1.1	1.7
Burundi	7.0	7.8	9.1	16.3	18.1	21.1	0.1	0.1	0.2	1.2	1.5	2.2
Cameroon	35.7	38.7	43.9	38.3	41.1	45.8	6.3	7.5	10.1	9.2	10.8	13.8
Cape Verde	30.5	32.4	35.6	41.8	44.1	48.0	4.0	4.6	5.8	11.0	12.5	15.1
Central African Republic	6.7	7.2	8.0	17.7	18.5	20.0	0.1	0.1	0.1	1.1	1.3	1.5
Chad	10.4	12.0	15.0	17.1	19.2	22.9	0.3	0.4	0.6	1.3	1.7	2.6
Comoros	17.7	20.0	24.3	33.1	35.9	40.7	0.9	1.2	1.9	5.8	7.1	9.6
Congo, Democratic Republic of	4.3	4.8	5.7	11.9	13.3	15.8	0.0	0.0	0.1	0.6	0.8	1.1
Congo, Republic of	12.0	12.7	13.8	24.2	25.2	26.8	0.4	0.4	0.5	2.7	3.0	3.5
Côte d'Ivoire	10.9	11.6	12.7	32.5	34.2	36.0	0.2	0.2	0.3	4.8	5.4	6.2
Djibouti	17.6	18.9	21.2	28.8	31.0	34.5	1.2	1.4	1.8	5.0	5.8	7.4
Equatorial Guinea	35.4	37.5	41.0	46.1	48.5	52.3	5.6	6.4	7.9	13.8	15.4	18.4
Eritrea	2.9	3.1	3.5	5.9	5.7	6.3	0.0	0.0	0.0	0.1	0.1	0.1
Ethiopia	7.4	7.8	8.6	3.1	3.3	3.7	0.1	0.2	0.2	0.0	0.0	0.0
Gabon	22.7	25.4	30.2	45.0	47.7	52.2	1.8	2.3	3.4	13.5	15.5	19.2
Gambia	9.0	10.3	12.8	20.5	22.8	27.0	0.2	0.3	0.5	1.9	2.5	3.6
Ghana	27.3	30.3	35.6	26.2	28.1	32.5	2.6	3.3	4.8	3.5	4.2	5.9
Guinea	14.5	16.5	20.3	27.8	30.4	34.9	0.6	0.8	1.3	4.2	5.2	7.1
Guinea-Bissau	10.5	11.4	12.9	20.3	22.1	25.1	0.4	0.5	0.6	2.4	2.8	3.7
Kenya	6.5	6.9	7.7	21.3	21.7	23.3	0.1	0.1	0.1	1.8	1.9	2.2
Lesotho	26.3	27.5	29.5	68.7	69.5	70.8	1.7	1.9	2.3	33.2	34.3	36.1
Liberia	27.8	29.6	32.7	39.2	41.6	45.4	3.3	3.8	4.8	9.6	11.0	13.4
Madagascar	12.9	14.5	17.5	18.1	20.2	24.1	0.7	1.0	1.5	1.5	1.9	2.9
Malawi	14.3	15.1	16.4	21.6	23.5	25.2	0.6	0.7	0.8	1.6	2.0	2.4
Mali	12.8	14.6	18.1	26.1	33.6	38.4	0.4	0.6	1.0	3.4	6.2	8.4
Mauritania	27.5	30.4	35.4	52.2	54.6	58.6	2.9	3.7	5.3	20.6	22.9	26.9
Mozambique	8.7	9.3	10.3	24.3	25.3	26.9	0.1	0.2	0.2	2.7	3.0	3.4
Namibia	11.6	12.3	13.5	31.5	32.6	34.4	0.2	0.3	0.4	4.9	5.3	6.1
Niger	12.1	13.9	17.2	19.6	21.3	25.1	0.4	0.6	0.9	1.9	2.3	3.4
Nigeria	19.6	21.9	26.0	29.6	32.2	36.8	1.6	2.0	3.0	4.9	6.0	8.1
Rwanda	6.8	7.3	8.1	19.2	20.1	21.7	0.1	0.1	0.1	1.2	1.3	1.6
Sao Tome and Principe	14.4	15.5	17.5	25.2	27.2	30.5	0.8	0.9	1.2	3.7	4.4	5.7
Senegal	14.4	16.1	19.2	34.1	36.7	41.0	1.0	1.3	2.0	7.8	9.2	11.8
Seychelles	55.1	58.5	63.8	68.6	70.7	73.8	14.2	16.7	21.3	35.8	38.6	43.2
Sierra Leone	20.2	22.4	26.3	41.6	44.5	49.1	1.9	2.4	3.5	10.9	12.7	16.0
Somalia	9.8	10.6	12.1	19.3	21.1	24.0	0.3	0.4	0.6	2.1	2.6	3.4
South Africa	38.2	39.3	41.3	66.4	67.2	68.5	6.2	6.7	7.6	34.3	35.2	36.8
Sudan	16.0	17.2	19.3	27.0	29.1	32.5	1.0	1.2	1.5	4.3	5.1	6.5
Swaziland	33.6	35.8	39.5	45.2	47.8	51.9	4.0	4.7	6.1	11.8	13.5	16.5
Tanzania, United Republic of	14.7	15.4	16.8	26.0	27.0	28.7	0.6	0.7	0.8	2.8	3.1	3.6
Togo	15.0	17.1	20.9	28.3	30.9	35.5	0.6	0.9	1.4	4.3	5.3	7.3
Uganda	6.9	7.4	8.2	20.1	22.2	23.9	0.1	0.1	0.1	1.3	1.6	1.9
Zambia	7.0	7.5	8.3	20.2	18.6	20.0	0.1	0.1	0.1	1.6	1.3	1.5
Zimbabwe	14.5	15.3	16.7	47.2	48.9	50.6	0.5	0.6	0.8	14.1	15.3	16.7
WHO Eastern Mediterranean and Middle East Region												
Afghanistan	11.2	12.7	15.6	15.6	17.4	20.8	0.3	0.5	0.7	1.1	1.4	2.1
Algeria	32.1	34.1	37.4	43.2	45.6	49.4	4.5	5.2	6.4	11.9	13.4	16.2
Armenia	53.9	53.9	53.9	52.8	52.8	52.8	12.1	12.1	12.1	19.8	19.8	19.8
Bahrain	60.9	60.9	60.9	66.0	67.3	69.5	21.2	21.2	21.2	33.5	35.2	37.9
Brunei Darussalam	55.3	56.4	58.1	61.9	63.2	65.2	14.4	15.2	16.6	25.9	27.4	29.7
Egypt	64.5	64.5	64.5	69.7	74.2	76.0	22.0	22.0	22.0	39.3	45.5	48.0
Iran, Islamic Republic of	47.3	48.5	48.5	55.7	57.8	60.2	9.4	10.0	10.0	25.0	27.0	29.5
Iraq	38.7	40.1	42.4	49.0	50.8	53.6	6.6	7.2	8.3	15.5	16.8	19.1
Jordan	57.5	57.5	57.5	67.3	63.4	65.4	19.6	19.6	19.6	40.2	35.6	37.9
Kuwait	69.5	69.5	69.5	76.6	79.0	80.4	29.6	29.6	29.6	49.2	52.9	55.2
Lebanon	51.7	51.7	51.7	52.9	54.3	56.7	14.9	14.9	14.9	23.9	25.2	27.4
Libyan Arab Jamahiriya	47.6	48.8	50.8	56.0	57.5	59.8	10.7	11.4	12.7	21.1	22.5	24.9
Morocco	31.1	31.1	31.1	53.0	54.7	57.5	3.7	3.7	3.7	19.0	20.5	23.1
Oman	43.4	43.4	43.4	46.0	47.8	50.8	7.7	7.7	7.7	13.5	14.8	17.0
Pakistan	16.7	18.8	22.8	23.2	25.5	29.5	0.8	1.0	1.6	2.9	3.6	5.0
Qatar	56.9	57.9	59.5	62.9	64.1	65.9	16.6	17.4	18.7	27.9	29.3	31.6
Saudi Arabia	62.4	63.1	63.1	63.0	63.8	65.9	22.3	23.0	23.0	32.8	33.8	36.4
Syrian Arab Republic	47.2	48.4	50.4	55.7	57.2	59.6	10.5	11.2	12.4	20.8	22.2	24.6
Tunisia	42.8	42.8	42.8	57.9	59.2	61.4	7.7	7.7	7.7	28.8	30.2	32.6
United Arab Emirates	66.9	66.9	66.9	68.4	69.6	71.6	24.5	24.5	24.5	37.9	39.4	42.0
Yemen	24.6	24.6	24.6	27.8	29.4	32.2	2.0	2.0	2.0	4.4	5.1	6.2
WHO European Region												
Albania	57.2	57.2	57.2	52.5	52.5	52.5	18.6	18.6	18.6	23.8	23.8	23.8
Andorra	59.8	60.9	62.5	65.5	66.8	68.7	14.9	15.8	17.1	27.3	28.8	31.2
Austria	59.0	61.0	62.9	53.4	53.2	55.2	19.5	21.3	23.1	20.4	20.3	21.8
Azerbaijan	57.4	57.4	57.4	56.8	56.8	56.8	15.4	15.4	15.4	24.9	24.9	24.9
Belarus	63.7	63.7	63.7	69.9	69.9	69.9	16.2	16.2	16.2	32.2	32.2	32.2
Belgium	49.0	51.9	54.1	40.7	40.7	42.9	11.4	13.3	14.8	9.5	9.5	10.7
Bosnia and Herzegovina	56.6	56.6	56.6	51.0	51.0	51.0	13.8	13.8	13.8	21.5	21.5	21.5
Bulgaria	62.8	62.8	62.8	45.5	45.5	45.5	17.0	17.0	17.0	19.0	19.0	19.0
Croatia	60.0	61.3	63.5	45.3	46.4	48.3	17.1	18.2	20.1	15.4	16.2	17.6
Cyprus	50.4	51.7	53.9	59.0	60.6	63.0	9.4	10.1	11.4	20.7	22.2	24.7
Czech Republic	56.7	58.1	60.1	47.0	47.8	49.3	17.4	18.5	20.2	20.0	20.7	22.1
Denmark	50.7	52.5	55.0	37.5	39.1	41.4	9.6	10.6	12.0	6.4	7.1	8.3
Estonia	50.7	50.7	50.7	33.8	33.8	33.8	8.6	8.6	8.6	8.4	8.4	8.4
Finland	63.8	64.9	67.1	52.0	52.4	54.5	18.0	18.9	20.9	17.5	17.8	19.4
France	44.1	45.6	48.0	33.4	34.7	36.9	7.2	7.8	9.0	6.1	6.6	7.6
Georgia	37.4	38.9	41.5	48.9	50.8	53.8	4.7	5.2	6.1	13.4	14.7	17.1
Germany	63.7	65.1	67.2	53.6	55.1	57.1	19.7	20.9	22.9	19.2	20.4	22.1
Greece	74.6	75.7	77.5	60.1	61.3	63.2	26.2	27.7	30.3	23.4	24.5	26.4
Hungary	55.9	55.9	55.9	47.4	47.4	47.4	15.8	15.8	15.8	16.1	16.1	16.1
Iceland	57.7	59.0	61.2	60.5	61.7	63.7	15.7	16.7	18.5	22.0	23.2	25.3
Ireland	50.0	51.5	53.9	40.3	41.7	43.9	9.5	10.3	11.7	8.4	9.1	10.4
Israel	55.9	57.2	59.4	56.3	57.5	59.3	15.2	16.2	17.9	23.3	24.3	25.9
Italy	51.9	52.7	55.0	37.8	38.3	40.0	12.2	12.9	14.4	12.2		

	Prevalence of overweight, Male %			Prevalence of overweight, Female %			Prevalence of obesity, Male %			Prevalence of obesity, Female %		
	2002	2005	2010	2002	2005	2010	2002	2005	2010	2002	2005	2010
Macedonia, FYR	37.1	37.1	37.1	57.4	57.4	57.4	5.9	5.9	5.9	24.3	24.3	24.3
Malta	70.2	71.4	73.3	65.1	66.1	67.6	24.6	25.9	28.1	33.8	34.8	36.5
Moldova, Republic of	33.3	34.8	37.5	45.4	47.4	50.7	3.5	4.0	4.8	11.2	12.5	14.8
Monaco	58.0	59.1	60.9	64.3	65.6	67.6	13.7	14.5	15.9	26.0	27.5	29.9
Netherlands	46.7	48.0	50.2	42.6	44.0	46.1	9.6	10.4	11.7	10.7	11.5	12.9
Norway	53.3	54.8	57.2	42.0	43.4	45.8	10.4	11.3	12.8	8.6	9.3	10.7
Poland	50.7	50.7	50.7	44.3	44.3	44.3	12.9	12.9	12.9	18.0	18.0	18.0
Portugal	55.5	58.5	60.9	47.6	49.2	51.2	13.1	13.7	15.5	14.6	16.1	17.7
Romania	37.7	37.7	37.7	40.6	40.6	40.6	5.5	5.5	5.5	12.0	12.0	12.0
Russian Federation	46.5	46.5	46.5	51.7	51.7	51.7	9.6	9.6	9.6	23.6	23.6	23.6
San Marino	57.6	58.8	60.5	64.1	65.4	67.4	13.5	14.3	15.7	25.7	27.2	29.7
Serbia and Montenegro	61.2	61.2	61.2	48.5	48.5	48.5	17.7	17.7	17.7	20.6	20.6	20.6
Slovakia	50.7	52.0	54.0	59.1	60.6	62.9	10.1	10.8	12.0	21.3	22.8	25.3
Slovenia	54.8	56.0	57.9	62.1	63.5	65.7	11.8	12.5	13.9	23.7	25.2	27.6
Spain	55.7	55.8	57.9	45.7	47.7	49.8	15.6	15.6	17.3	14.5	15.8	17.3
Sweden	51.7	54.5	57.0	43.3	44.9	47.2	10.1	11.8	13.3	10.0	10.9	12.4
Switzerland	52.4	54.1	56.5	53.8	56.7	58.9	11.4	12.4	13.9	16.4	18.7	20.6
Tajikistan	29.2	30.8	33.5	41.8	43.9	47.4	2.5	2.9	3.6	9.2	10.4	12.6
Turkey	47.9	47.9	47.9	65.4	65.7	65.7	10.8	10.8	10.8	32.1	32.5	32.5
Turkmenistan	48.1	48.1	48.1	45.5	45.5	45.5	9.3	9.3	9.3	15.0	15.0	15.0
Ukraine	41.2	41.2	41.2	48.5	48.5	48.5	7.4	7.4	7.4	19.4	19.4	19.4
United Kingdom	62.5	65.7	67.8	58.8	61.9	63.8	18.7	21.6	23.7	21.3	24.2	26.3
Uzbekistan	42.0	42.0	42.0	44.3	49.9	49.9	7.1	7.1	7.1	13.5	17.6	17.6
WHO North American Region												
Antigua and Barbuda	50.0	51.2	53.2	58.3	59.8	62.1	10.4	11.2	12.4	21.5	22.9	25.3
Bahamas	55.9	57.0	58.7	62.5	63.8	65.9	13.9	14.7	16.0	25.6	27.1	29.5
Barbados	55.5	59.2	65.1	77.8	80.1	83.3	14.1	16.8	22.0	46.7	50.8	57.2
Belize	43.3	44.7	47.0	53.3	54.9	57.6	7.3	7.9	9.0	17.2	18.6	21.0
Canada	64.5	65.1	66.9	55.9	57.1	59.5	23.1	23.7	25.5	22.2	23.2	25.7
Dominica	61.5	65.1	70.8	74.4	77.1	80.8	16.9	20.0	25.8	41.8	46.0	52.6
Grenada	47.4	48.7	50.8	56.4	58.0	60.4	9.1	9.8	11.0	19.8	21.2	23.6
Guyana	40.6	42.1	44.4	51.2	52.9	55.8	6.3	6.8	7.9	15.6	17.0	19.4
Haiti	13.0	15.1	19.0	39.8	50.6	57.7	0.5	0.7	1.3	8.2	15.0	21.1
Jamaica	36.0	40.0	46.8	71.8	74.7	79.0	3.8	5.1	7.7	36.4	41.0	48.3
Mexico	64.6	68.4	73.6	65.6	67.9	73.0	20.3	24.0	30.1	31.6	34.3	41.0
Saint Kitts and Nevis	50.7	52.0	53.9	58.9	60.3	62.6	10.8	11.6	12.8	22.0	23.4	25.8
Saint Lucia	41.3	45.5	52.5	65.7	69.1	74.1	5.0	6.6	9.8	30.5	34.7	41.7
Saint Vincent and the Grenadines	44.3	45.6	47.9	54.0	55.7	58.3	7.7	8.4	9.5	17.8	19.2	21.6
Trinidad and Tobago	54.8	58.9	65.2	74.4	77.0	80.8	11.3	14.0	19.1	41.9	46.1	52.7
United States of America	72.2	75.6	80.5	69.8	72.6	76.7	32.0	36.5	44.2	37.8	41.8	48.3
WHO South and Central American Region												
Argentina	70.1	73.1	77.7	62.1	65.7	71.2	28.0	31.4	37.4	27.1	31.0	37.8
Bolivia	52.5	56.3	62.4	64.4	68.0	73.2	12.2	14.7	19.4	28.8	33.1	40.2
Brazil	43.4	47.4	54.0	49.2	53.5	60.3	6.9	8.7	12.4	15.0	18.3	24.5
Chile	58.9	62.6	68.4	64.4	68.0	73.3	16.1	19.0	24.3	27.2	31.6	39.1
Colombia	52.7	56.5	62.6	55.1	54.6	61.1	12.4	14.9	19.6	20.3	19.9	26.1
Costa Rica	49.8	53.9	60.1	56.2	57.8	63.8	10.6	13.0	17.5	22.7	24.2	30.5
Cuba	55.2	59.2	65.4	57.0	61.1	67.2	12.3	14.9	20.1	20.7	24.6	31.5
Dominican Republic	42.5	46.6	53.4	62.8	66.4	71.7	6.0	7.7	11.2	27.8	31.8	38.7
Ecuador	40.2	41.7	44.0	50.9	52.6	55.5	6.1	6.7	7.7	15.4	16.7	19.1
El Salvador	42.1	43.5	45.8	52.3	54.0	56.8	6.8	7.4	8.5	16.5	17.8	20.2
Guatemala	53.2	56.9	62.9	61.1	65.4	70.9	13.1	15.7	20.5	25.0	29.7	36.8
Honduras	36.2	37.6	40.1	47.5	49.4	52.5	4.7	5.2	6.2	13.1	14.4	16.7
Nicaragua	48.9	52.9	59.4	62.9	68.1	73.1	9.3	11.5	15.9	28.3	34.3	41.1
Panama	45.2	46.5	48.7	54.7	56.3	58.9	8.1	8.8	9.9	18.3	19.8	22.2
Paraguay	40.9	42.3	44.7	51.4	53.2	56.0	6.4	7.0	8.0	15.8	17.2	19.6
Peru	50.8	54.6	60.9	62.7	64.7	70.1	10.8	13.2	17.7	28.9	31.1	37.7
Suriname	41.0	42.4	44.8	51.5	53.2	56.1	6.4	7.0	8.1	15.8	17.2	19.6
Uruguay	60.0	63.6	69.3	54.1	58.1	64.4	17.1	20.1	25.7	19.6	23.3	29.8
Venezuela	65.6	69.1	74.4	57.5	61.4	67.3	19.7	23.2	29.5	22.4	26.2	33.0
WHO South-East Asian Region												
Bangladesh	5.9	6.7	8.4	4.3	5.4	6.7	0.1	0.1	0.2	0.1	0.2	0.2
Bhutan	34.0	35.3	37.7	44.7	46.5	49.6	5.3	5.8	6.7	13.1	14.3	16.5
India	15.0	16.8	20.1	13.7	15.2	18.1	0.9	1.1	1.7	1.1	1.4	2.0
Maldives	29.7	32.3	36.6	45.7	47.6	50.8	4.7	5.7	7.7	20.2	22.0	25.0
Mauritius	35.6	39.0	44.8	49.5	52.3	56.8	4.5	5.6	8.0	16.1	18.3	22.3
Nepal	7.7	8.8	11.0	8.0	8.0	9.9	0.1	0.2	0.3	0.2	0.2	0.3
Sri Lanka	8.8	8.9	9.1	5.0	5.9	7.9	0.2	0.2	0.2	0.1	0.1	0.2
WHO Western Pacific Region												
Australia	69.7	72.1	75.7	60.2	62.7	66.5	21.2	23.8	28.4	22.5	24.9	29.1
Cambodia	9.6	13.3	21.4	7.1	9.3	13.8	0.1	0.2	0.5	0.1	0.1	0.4
China	27.5	33.1	45.0	22.7	24.7	32.0	1.0	1.6	4.1	1.5	1.9	3.6
Cook Islands	92.0	92.6	93.4	88.5	89.2	90.3	67.9	69.5	72.1	69.0	70.8	73.4
Fiji	42.7	43.9	47.5	63.4	65.6	69.5	7.8	8.7	10.7	29.8	32.5	37.1
Indonesia	9.6	9.7	9.9	20.3	22.7	27.1	0.2	0.2	0.2	2.0	2.6	3.9
Japan	25.3	27.0	29.8	18.6	18.1	16.2	1.5	1.8	2.3	1.5	1.5	1.1
Kiribati	71.4	73.2	76.1	71.9	73.9	77.1	27.6	29.8	33.6	37.9	41.0	46.1
Korea, Democratic People's Republic of	31.0	32.7	35.5	44.0	46.2	49.7	2.4	2.7	3.4	9.5	10.7	12.9
Korea, Republic of	32.8	40.2	51.5	38.2	43.8	51.0	2.3	4.1	8.3	7.2	10.1	14.6
Lao People's Democratic Republic	30.4	32.1	34.9	43.5	45.6	49.2	2.3	2.6	3.3	9.2	10.4	12.6
Malaysia	22.5	22.7	23.0	34.2	37.2	42.2	1.6	1.6	1.7	6.8	8.2	11.0
Marshall Islands	39.1	40.6	43.0	50.0	51.8	54.7	5.7	6.3	7.3	14.8	16.1	18.5
Micronesia, Federated States of	91.5	92.1	93.1	89.5	90.1	91.1	64.3	66.2	69.1	71.3	72.9	75.3
Mongolia	46.0	53.0	64.1	65.8	69.3	74.4	5.2	7.9	14.5	24.6	29.0	36.6
Myanmar	27.8	29.4	32.3	41.1	43.3	47.0	1.8	2.1	2.7	8.0	9.1	11.3
Nauru	96.3	96.5	96.9	92.0	92.4	93.0	82.3	83.2	84.6	77.7	78.8	80.5
New Zealand	65.2	68.7	73.9	64.0	68.2	74.2	19.7	23.0	28.9	26.7	31.5	39.9
Niue	76.9	78.5	80.9	83.8	85.0	86.7	34.4	36.8	40.7	58.6	61.0	64.7
Palau	72.7	74.5	77.2	81.0	82.4	84.5	29.0	31.2	35.0	52.2	55.0	59.4
Papua New Guinea	29.2	31.5	35.3	26.1	29.0	34.0	2.0	2.5	3.4	3.2	4.2	6.1
Philippines	21.7	21.9	22.2	25.4	28.5	33.6	1.1	1.1	1.1	2.8	3.7	5.5
Samoa	77.2	78.7	81.1	80.7	82.1	84.1	36.2	38.4	42.2	55.0	57.3	60.9
Singapore	23.6	23.8	24.1	20.7	22.0	26.7	1.3	1.3	1.4	1.6	1.8	2.9
Solomon Islands	36.8	38.2	40.7	48.0	49.9	52.9	4.9	5.4	6.4	13.4	14.7	17.1
Thailand	27.7	27.9	28.3	32.5	35.2	39.9	2.5	2.5	2.6	7.0	8.4	11.1
Timor-Leste, Democratic Republic of	35.9	37.2	39.5	46.4	48.2	51.1	6.0	6.5	7.5	14.2	15.4	17.7
Tonga	89.5	90.3	91.4	90.9	91.4	92.1	58.7	60.7	64.0	74.8	76.1	78.1
Tuvalu	51.2	52.5	54.4	59.2	60.7	62.9	11.1	11.9	13.1	22.3	23.8	26.2
Vanuatu	54.0	56.3	60.2	60.1	62.9	67.2	11.9	13.4	16.2	23.4	26.3	31.4
Vietnam	2.7	4.1	7.5	7.0	8.7	12.2	0.0	0.0	0.0	0.2	0.3	0.7

Notes: Values are age-standardised to the WHO Standard Population. Overweight is defined as BMI \geq 25kg/m². Obese defined as BMI \geq 30kg/m². Estimates for 2005 and 2010 are projections only.

Source: WHO (2005) The SuRF Report 2. Surveillance of chronic disease risk factors, WHO: Geneva.

Fig 3.10a Prevalence of obesity by sex, 2002, WHO European Region

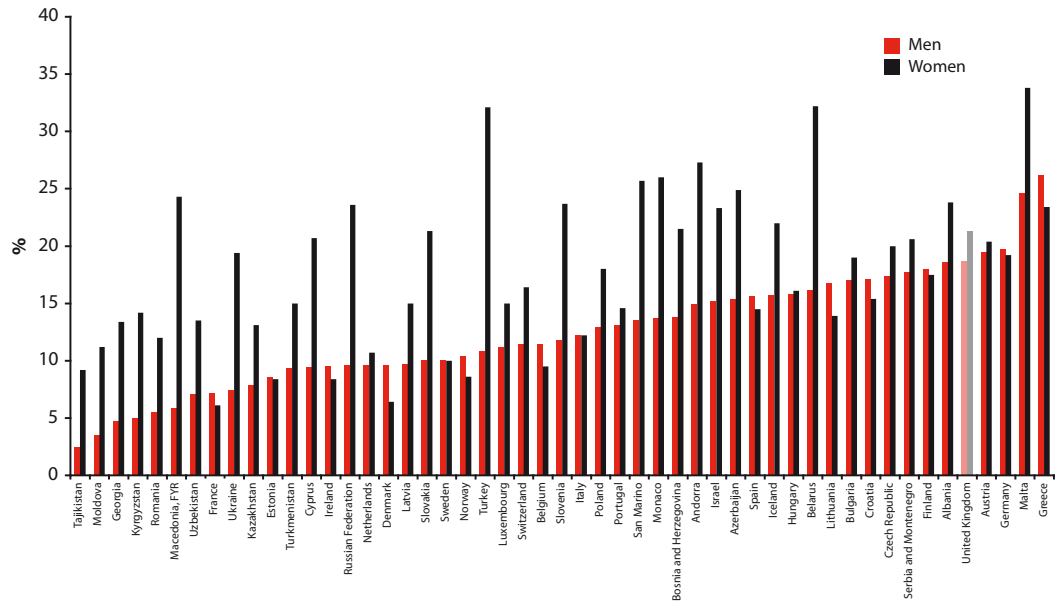


Fig 3.10b Prevalence of obesity by sex, 2002, selected countries, the World

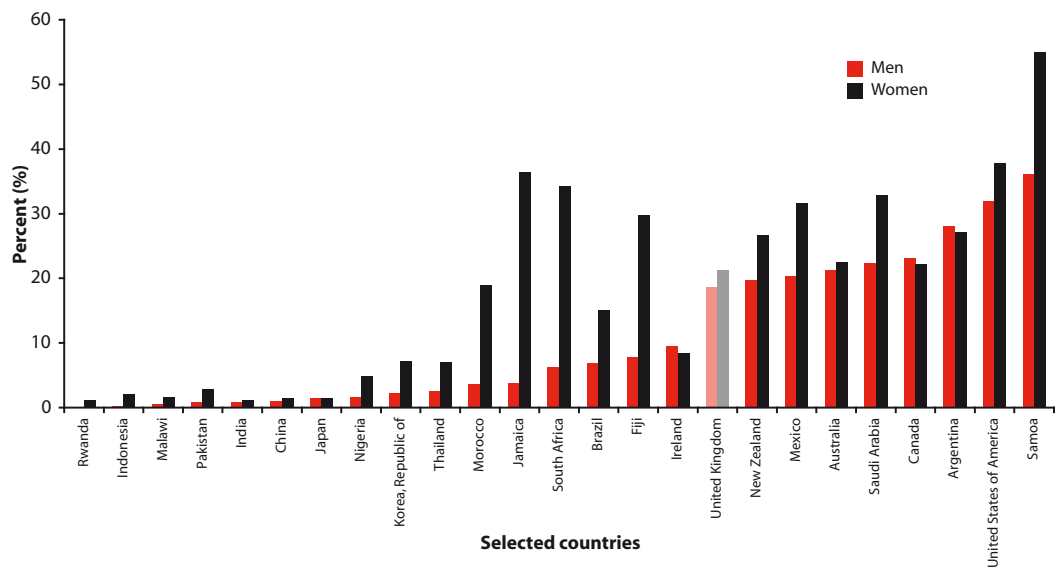


Table 3.11 *Prevalence of overweight children (including obesity) by WHO Region and country, by sex, latest available year, the World*

	Year of Survey	Age Range Years (inclusive)	Overweight (including obesity)		Cut Off
			Boys	Girls	
WHO Africa Region					
Algeria	2003	7-17	6.0	5.6	IOTF
Ethiopia	1987-1995	5-17	0.1	0.4	IOTF
Mali	1993	5-17	0.2	0.5	IOTF
Senegal	1992	5-17	0.1	0.5	IOTF
Seychelles	1999	5,9,12 & 16	9.2	15.8	IOTF
Zimbabwe	1990-4	5-17	1.7	2.4	IOTF
WHO Americas Region					
Bolivia (urban)	2003	14-17	15.6	27.5	IOTF
Brazil	2002	7-10	23.0	21.1	IOTF
Canada	1996	7-13	33.0	27.0	IOTF
Chile	2000	6	26.0	27.1	IOTF
Mexico	1995	5-17	32.3	31.1	IOTF
Trinidad & Tobago	1999	5,6,9 & 10	8.1	8.8	IOTF
USA	1988-94	5-17	26.8	28.1	IOTF
Venezuela	1976-82	10 & 15	21.1	17.2	IOTF
WHO Eastern Mediterranean Region					
Bahrain	2000	12-17	29.9	38.5	IOTF
Iran	1995	6	24.7	26.8	IOTF
Kuwait	1999-2000	10-14	30.0	31.8	85th/95th centile
Lebanon	1996	5-17	23.4	19.7	IOTF
Saudi Arabia	2002	5-17	16.7	19.4	IOTF
WHO European Region					
Austria	2003	8-12	22.5	16.7	90/97th centile
Belgium	1998-9	5-15	27.7	26.8	85/95th centile
Bulgaria	1998	7-17	18.9	16.1	IOTF
Cyprus	1999-2000	6-17	25.4	22.6	IOTF
Czech Republic	2001	5-17	14.7	13.4	IOTF
Denmark	1996/7	6-16	14.1	15.3	IOTF
Finland (self report)	1999	12-17	19.4	11.2	IOTF
France	2000 (12yrs 2001)	7,8,9&12	19.1	19.3	IOTF
Germany	1995	5-17	14.1	14.0	IOTF
Greece	2003	13-17	29.6	16.1	IOTF
Hungary	1993-4	10 & 15	17.8	15.9	IOTF
Iceland	1998	9	22.0	25.5	IOTF
Italy	1993-2001	5-17	26.6	24.8	IOTF
Macedonia, FYR	1995-2002	6-17	18.6	16.7	85th & 95th centile
Malta	1992	10	32.7	38.5	IOTF
Netherlands	1997	5-17	8.8	11.8	IOTF
Poland	1996	5-17	16.7	13.6	IOTF
Portugal	2002/3	7-9	29.5	34.3	IOTF
Russian Federation	1992	5-17	24.2	19.7	IOTF
Slovakia	1995-99	11-17	9.8	8.2	IOTF
Spain	1998-2000	5-16	31.0	19.5	IOTF
Sweden	2001	6-11	17.6	27.4	IOTF
Switzerland	2002	6-12	21.0	23.2	IOTF
Turkey	2001	12-17	11.4	10.3	IOTF
United Kingdom (England)	2001	5-17	21.8	27.1	IOTF
WHO South East Asia Region					
India	2002 approx	5-17 (5-15 girls)	12.9	8.2	IOTF
Nepal	1997	5-17	0.0	0.0	IOTF
Thailand	1997	5-15	21.1	12.6	IOTF
WHO Western Pacific Region					
Australia	1995	7-17	21.1	21.3	IOTF
Japan	1996-2000	6-14	16.2	14.3	IOTF
Singapore	1993	10 & 15	20.4	14.6	IOTF
China	1999-2000	11 & 15	14.9	8.0	IOTF
New Zealand	2000	11 & 12	30.0	30.0	IOTF

Source: International Obesity TaskForce (2006). <http://www.iotf.org/database/ChildhoodTablebyRegionFeb06.htm>

Table 3.12 Numbers and cost of prescriptions for drugs used to treat obesity, 1998-2004, England

Year	Numbers of prescriptions (000s)	£ (000s)
1998	39	812
1999	148	5,490
2000	162	6,671
2001	470	19,737
2002	739	31,301
2003	690	29,641
2004	702	30,850

Source: Department of Health (2005) and previous years: Prescription Cost Analysis

http://www.dh.gov.uk/AdvancedSearch/SearchResults/fs/en?NP=1&PO1=C&PI1=W&PF1=A&PG=1&RP=20&PT1=prescription+rates+BNF+codes+4.5.1+4.5.2&SC=_dh_site&Z=1

Fig 3.12 Numbers of prescriptions for drugs used to treat obesity, 1998-2004, England

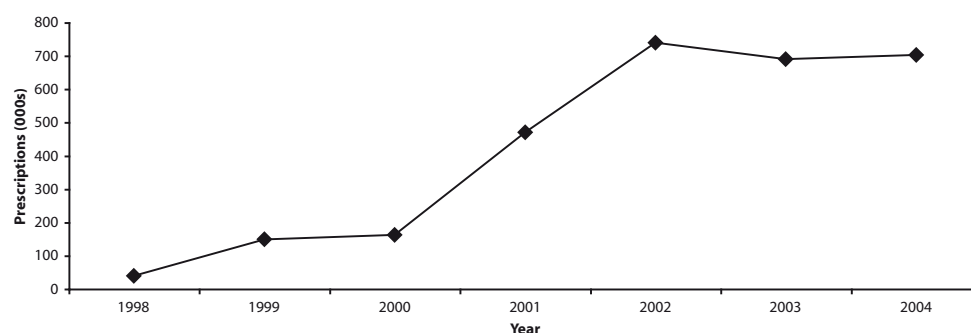


Table 3.13 Cost of obesity-related ill-health to the NHS, 2002

Disease categories	Cost to the NHS (£billions)	Cost attributed to overweight and obesity (£billions)
<i>Diseases related to overweight and obesity</i>	8.70	3.20
Ischaemic heart disease	2.30	0.78
Stroke	2.90	0.98
Breast cancer	0.24	0.03
Colon/rectum cancer	0.38	0.06
Hypertensive diseases	0.99	0.58
Corpus uteri cancer	0.09	0.05
Osteoarthritis	1.09	0.23
Diabetes Mellitus	0.68	0.53
<i>All diseases</i>		
Infectious diseases	7.30	
Cancer (malignant and other neoplasms)	2.88	
Cardiovascular diseases	8.50	
Musculoskeletal diseases	5.50	
Mental and nervous system disorders	17.55	
Respiratory diseases	4.35	
Injuries	2.67	
Other	21.48	
Total	70.20	

Notes Figures may not add due to rounding. NHS costs for diseases for 2002 are extrapolated from 1992/93 costs.

Source: Allender S, Rayner M, (2006). The burden of obesity-related ill health. Forthcoming.

Table 3.14 Hospital admissions by obesity as primary diagnosis by sex and age, 1999/00 to 2004/05, England

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
MEN						
0 - 4	21	16	23	42	30	21
5-14	73	75	71	149	141	199
15 - 44	108	124	106	132	180	219
45 - 64	82	116	109	126	173	171
65 - 74	14	22	9	22	28	23
75 - 84	3	3	8	9	10	5
85+	3				2	1
<i>Total FCE for obesity</i>	304	356	326	480	564	639
<i>Total FCE</i>	5,262,807	5,321,016	5,396,157	5,571,968	5,759,916	5,983,455
<i>% FCE for obesity</i>	0.006%	0.007%	0.006%	0.009%	0.010%	0.011%
WOMEN						
0 - 4	25	37	33	29	31	40
5-14	78	83	97	138	318	235
15 - 44	396	409	372	468	580	780
45 - 64	215	239	235	252	332	451
65 - 74	44	55	59	50	43	29
75 - 84	16	18	17	20	21	26
85+	8		2	5	7	10
<i>Total FCE for obesity</i>	782	841	815	962	1332	1571
<i>Total FCE</i>	6,904,767	6,943,661	6,961,203	7,183,931	7,414,564	7,723,310
<i>% FCE for obesity</i>	0.011%	0.012%	0.012%	0.013%	0.018%	0.020%

Notes Hospital admission defined as a finished consultant episode (FCE): a period of admitted patient care under one consultant within one healthcare provider. Please note that the figures do not represent the number of patients, as a person may have more than one episode of care within the year.

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Source: Department of Health (2006) Hospital Episode Statistics. NHS Health and Social Care Information Centre.