

FAMILY FOOD 2012

SHIPPING LIST

BREAD
MILK (2 pts)
EGGS
TOMATOES
ONIONS
PASTA

CALL
LINDSAY

163 G...	£2.75
164 PARATHI	£2.95
165 STUFFED PARATHI	
166 KEEMA PARATHI	
167 CHAPATI	
168 BUTTER CHAPATI	
169 PUREE	
170 ROTI	
SUNDRIES	
171 PLAIN PAPADAM	£0.70
172 SPICY PAPADAM	£0.70
173 ONION or CUCUMBER RAITHA	£1.25
174 MANGO CHUTNEY (sweet)	£0.60
175 LIME PICKLE (hot)	£0.60
176 COCONUT CHUTNEY	£0.60
177 ONION SALAD	£0.60
178 MINT SAUCE	£0.60
DESSERTS (Indian Ice Cream)	
179 MANGO or PISTACHIO KULFI	£1.25
DRINKS	
180 COKE, DIET COKE or TANGO (can)	£0.80
181 COKE, DIET COKE or TANGO (bottle 1.5l)	£1.95



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for Environment
Food & Rural Affairs



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Introduction

Food is necessary for life and essential for good health. The agricultural industry, which produces much of our food, influences our landscape and rural areas. The food manufacturing industry is the largest manufacturing sector in the UK. Taken as a whole, the agri-food sector contributes £97bn to the economy and employs 3.8 million people. Food retail and food services of all types are part of everyday life: from farmers' markets to 24 hour superstores, from fish and chip shops to pubs and restaurants. Food impacts our personal lives on a daily basis. Our spending habits and eating patterns reflect our individual lifestyles and social and economic situations, and have implications for public health and social policy.

Family Food looks specifically at the domestic, or household aspect. It provides detailed statistics on food and drink purchases, expenditure and the derived nutrient content of those purchases from a large household survey covering the United Kingdom. Family Food and its predecessors have been running since the 1940s and the data produced have been used to support and inform Government policy, as well as academic research, for diverse purposes. From monitoring the effects of wartime and post-war rationing to assessing consumer response to recent food price inflation, Family Food data provides insights into the way we live through the food we buy.

Government policy on food differs slightly in the different countries of the United Kingdom, but has the same broad ambitions: supporting the food industry and promoting home grown and produced products, ensuring that the standards, safety and authenticity of the food we eat meet our expectations, and promoting public health.

These policies manifest themselves to the general public most visibly in campaigns such as 5 A DAY and the Eatwell plate, which aim to promote a healthy diet, and 'Love Food Hate Waste' which aims to illustrate how people can save money on their food bills and reduce the environmental impact of waste. However, there are many less visible but no less important aspects, for instance country of origin labelling, which may influence peoples purchasing decisions.

In 2012 food price inflation continued to run higher than the general inflation rate, as it has generally done since 2007. The biggest drivers to UK food price inflation are global commodity prices, exchange rates and oil prices. Consumers' response to changing prices is assessed in Chapter 5, alongside longer term dietary trends.

We are all exposed to information, advice and news about food daily, in the media and through our social circles. Family Food is an impartial analysis of the food we buy. It is accredited as a National Statistics product, which guarantees its integrity, quality assurance and accessibility. Its related publication, [Family Spending 2013](#), looks at all household expenditure and is available from the Office for National Statistics.

Information about the survey organisation and operation is in the 'About Family Food' section in this report, as well as contact details for any user feedback. More methodology papers are available [online](#), detailing the background to the survey, its history, sampling, reliability and methods of calculating nutrient intakes. Extensive long term summary datasets are also available to [download](#). The Family Food survey data is accessible to researchers via [The Data Archive](#).

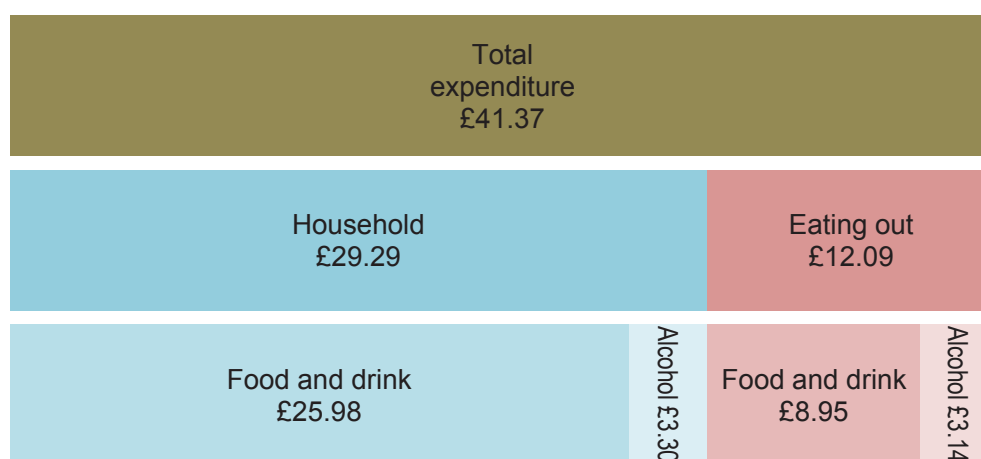
Executive Summary

Family Food 2012 presents the results from the 2012 Family Food module of the Living Costs and Food Survey, covering household shopping and eating habits. Around 6,000 households in the UK are surveyed annually. Households record their expenditure on, and purchased quantities of, food and drink both for the household and that consumed outside the home. Nutrient intakes are derived from the purchase data. More details on the survey are in the 'About Family Food' section.

Overview

- In 2012 average household expenditure on all food and drink rose 3.6 per cent to £41.37 per person per week (see chart 1). Taking inflation into account, this was 0.9 per cent more than 2011 but 3.9 per cent less than 2009.
- In the UK an average 11.6 per cent of all household spend went on food in 2012. For the lowest 20 per cent of households by equivalised income it was 16.6 per cent.

UK average expenditure on food and drink, per person per week

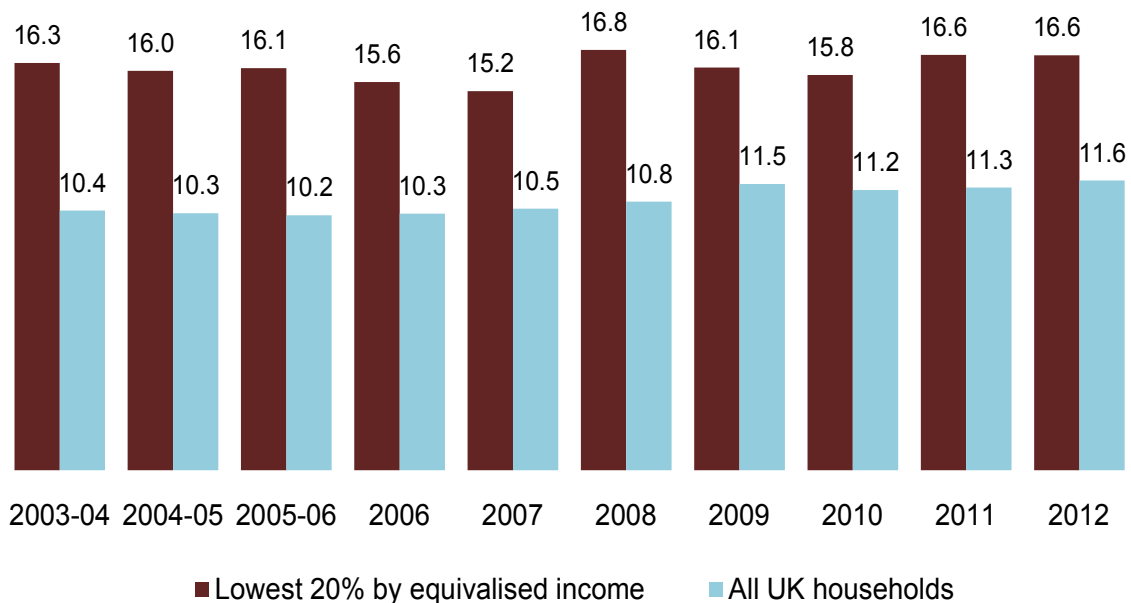


- Purchases of various household food types are on clear short term downward trends since 2009, including milk and cream, carcass meat, fish, potatoes, bread and 'biscuits and crispbreads'. Purchases of eggs are on a short term upwards trend in this period.
- The amount of food eaten out has been declining since 2001, with decreases in many categories.
- Total energy intake from all food and drink is on a long term downward trend. Intake is still around 5 per cent higher than the Estimated Average Requirement for adult intakes.
- All vitamin and mineral intakes except potassium reached at least 100 per cent of the recommended minimum Reference Nutrient Intake, where one is set.

Expenditure

- In real terms, between 2009 and 2012 household spending on food and drink fell by 3.1 per cent and eating out expenditure by 5.6 per cent. Household spending on alcoholic drinks increased by 1.3 per cent over the same period, whilst that bought for consumption outside the home fell by 9.8 per cent.
- The percentage of spend on food continues to be highest for low income households, at 16.6 per cent in 2012, 1.4 percentage points above the 2007 level. Food is the largest item of household expenditure for low income households, after housing, fuel and power costs.

Percentage of spend going on food and non-alcoholic drinks



- On average, UK households purchased 4.7 per cent less food in 2012 than in 2007 while spending 17 per cent more. They saved 5.6 per cent by trading down to cheaper products.
- Households in income decile 1 (lowest income group) spent 22 per cent more on food in 2012 than in 2007 and purchased 5.7 per cent less. Trading down saved these households 1.0 per cent.

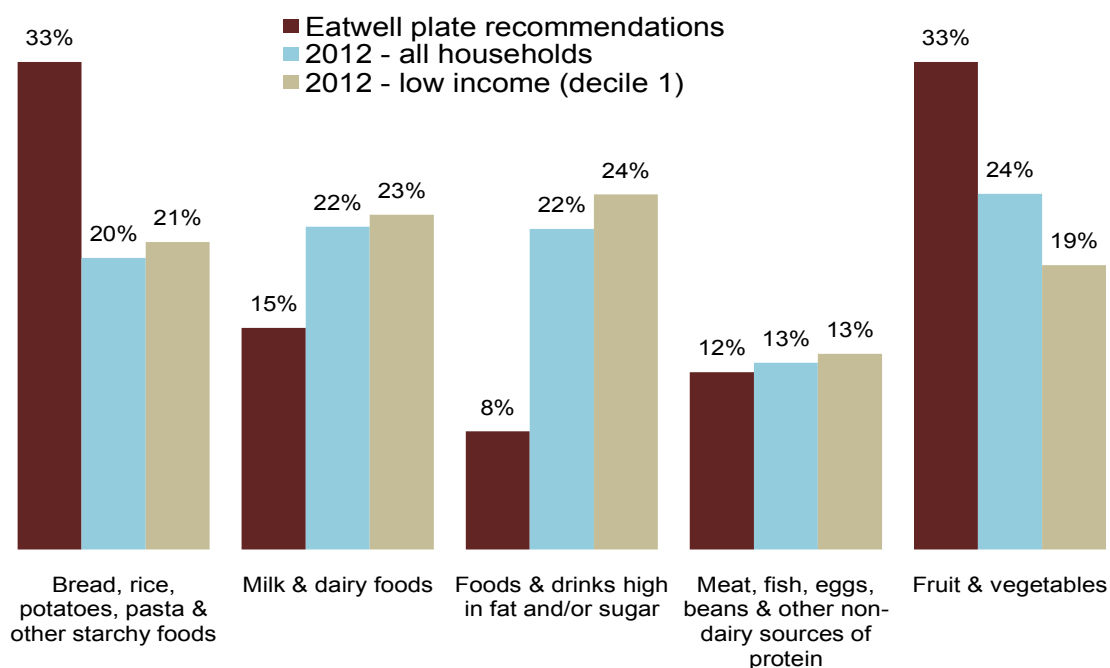
More detailed analyses on expenditure are presented in Chapter 1 and an analysis of low income households is presented in Chapter 5.

Purchases

The report focuses mainly on trends over the period 2009-2012. Highlights in the report are:

- Household food purchases do not generally match the Government recommended Eatwell plate proportions of the types of food which make up a well balanced diet. Both low income households and all households have a relatively similar diet in terms of the eatwell plate categories, with the exception of fruit and vegetables.

Eatwell plate comparison for low income and all households



- Rural areas tended to purchase larger quantities of food and drink than urban areas, therefore the energy and nutrient intakes derived from these purchases was greater in rural areas.
- Household purchases of fresh and processed vegetables (excluding potatoes) have generally been declining since 2005, with a 6.1 per cent fall from 1,156g to 1,086g average weekly consumption per person. This has mainly been due to a decrease in purchases of fresh vegetables, which account for roughly 70 per cent of all vegetable purchases.
- There is a significant long term downward trend in purchases of milk, driven by reductions in whole milk. Whole milk purchases were 29 per cent lower in 2012 than in 2009, equivalent to a reduction of 124 mls per person per week. Purchases of semi skimmed milk, which overtook whole milk in the early 1990s and fully skimmed milk, have been generally stable in the last 10 years.
- Purchases of raw carcass meat have been on a downward trend since 2009, falling by 7.7 per cent. This follows the period prior to 2008 where purchases had been around 10 per cent higher.
- There is a significant downward trend in household purchases of fish and fish products, which fell 8.4 per cent between 2009 and 2012 to 144 grams per person per week.

More detailed analyses of purchases are presented in Chapter 1, by geographic region in Chapter 3 and by demographic characteristics in Chapter 4.

Dietary trends

The report focuses mainly on trends over the period 2009-2012. Highlights in the report are:

- Total energy intake per person was an average of 2209 kcal per person per day in 2012, 4.1 per cent lower than in 2009. This is a statistically significant downward trend that confirms the longer term downward trend already apparent since the mid 1960s. Intake is still around 5 per cent higher than the Estimated Average Requirement.
- Energy intake from eating out was 219 kcal per person per day in 2012, 12.5 per cent lower than in 2009. Average energy intake from eating out accounted for 10 per cent of total energy intake.
- Total intake of non-milk extrinsic sugars is on a downward trend since 2009 having fallen 8.8 per cent between 2009 and 2012.

- Over the four years 2009 to 2012, intake of unsaturated fatty acids showed a downward trend. Monounsaturated fatty acids declined by 1.3 per cent, while intakes of polyunsaturates fell by 4.7 per cent.
- Alcohol intake fell 7.5 per cent in 2012 to 9.4 grams per person per day. Since 2009 intake has been on a downward trend. Eating out purchases accounted for 23 per cent of total alcohol intake in 2012. Eating out intakes of alcohol were 22 per cent lower in 2012 than in 2009 and showing a significant downward trend.

Nutritional analysis is presented in Chapter 2, by geographic region in Chapter 3, by demographic characteristics in Chapter 4 and for low income households in Chapter 5.

Chapter 1 Purchases and expenditure

1.1 Overview

Comparisons between 2009 and 2012, which provide a more reliable indication of change than a year on year comparison, are made for the main food groups that make up people's diets in the UK. In some cases, longer term comparisons are made.

In 2012 the amount that an average household spent on all food and drink, including alcoholic drinks and food eaten out, rose 3.6 per cent to £41.37 per person per week. Household food purchases formed the largest share at £25.98 per person per week. When inflation is taken into account, the amount spent was 0.9 per cent more than 2011 but 3.9 per cent less than 2009.

Purchase of various household foods are on clear short term downward trends since 2009, including milk and cream, carcase meat, fish, potatoes, bread and 'biscuits and crispbreads'. Eggs are on a short term upwards trend since 2009. The amount of food eaten out has been declining since 2001 with decreases in many categories. While household purchases are declining for many foods, household spending is showing increases in most categories with food inflation averaging 3.3 per cent in 2012.

1.2 Food classification and results tables

Family Food classifies food items into a hierarchical coding scheme of approximately 500 different food codes. Full details of how food is coded and where it fits into the scheme are available in the [methodology paper](#) 'Food and drink codes'. Because of space limitations, the data tables in this report generally only show selected food and drink items within the main categories. The accompanying [datasets](#) show results for the full list of codes, going back in most cases to 2001 and in some cases back to 1974. Historical estimates going back to 1940 in some cases are available from [The National Archives](#).

1.3 Household purchases

Table 1.2 shows the main food groups examined in this chapter and contains an indication of those items where a statistically significant 4 year linear trend is evident. A detailed explanation of how these trends are calculated is available in the [Method Papers](#).

Fruit and vegetables

Household purchases of fresh and processed vegetables (excluding potatoes) have shown no clear trend since 2009, but have generally been declining since 2005, with a 6.1 per cent fall from 1,156g to 1,086g average weekly consumption per person. This has mainly been due to a decrease in purchases of fresh vegetables, which account for roughly 70 per cent of all vegetable purchases. Purchases of processed vegetables are stable and unchanged from 2009.

Potato purchases are on a long term downward trend, with a 4.8 per cent reduction since 2009. Purchases are 21 per cent lower than their 2001 level. The reduction in recent years is driven by a decline in purchases of fresh potatoes. Around four fifths of the purchases of processed potatoes were chips and crisps and these have been relatively stable over the last ten years.

Household purchases of fruit show a similar profile to vegetables. Although there is no statistically significant trend since 2009, purchases have been falling since 2006 and are 16 per cent down from that peak, at 1,107g per person per week on average. Fresh fruit accounts for two thirds of all fruit purchases. Fruit juices have followed the same pattern as fruit, with purchases 6.6 per cent down on 2009, continuing a decline that started in 2006.

While overall purchases of fruit and vegetables reduced between 2009 and 2012, consumers spent 8.3 per cent more on fresh and processed vegetables and 12 per cent more on fresh and processed fruit.

Chapter 5 analyses fruit and vegetable purchasing over time in terms of recommended daily consumption levels and Chapter 4 examines how fruit and vegetable purchases vary by demographic groups.

In 2012, 2.7 per cent of all the fresh fruit and vegetables entering the household came from free sources, mainly gardens and allotments. This compares to 3.3 per cent in 2009. Section 1.3 provides a more detailed breakdown.

Fats (including oils)

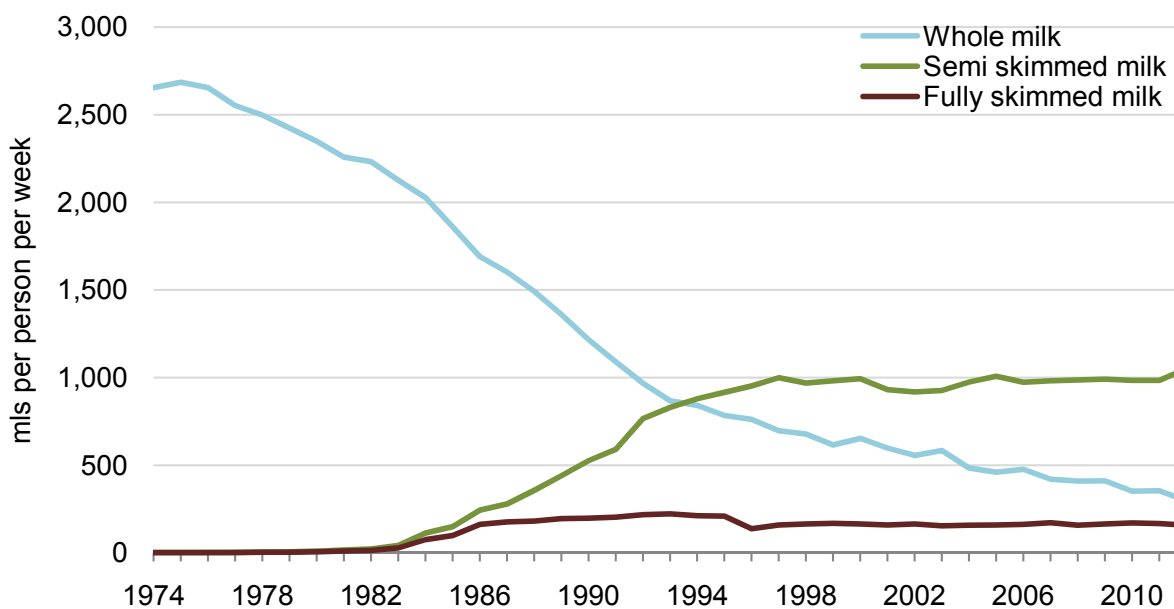
In the last 10 years household purchases of fats have been generally stable following a long decline since the mid eighties. Purchasing levels of oils and fats were 1.6 per cent lower in 2012 than in 2009, a change equivalent to 3 grams per person per week. Oils accounted for 34 per cent of all fats purchases, with butter 5.8 per cent higher than in 2009 and 'reduced and low fat spreads' down by 10.6 per cent over the same period. Since 2009, purchases of margarine¹ were unchanged.

Milk and cream

There is a significant long term downward trend in purchases of whole milk. Whole milk purchases were 29 per cent lower in 2012 than in 2009, equivalent to a reduction of 124 mls per person per week. Over the same period, purchases of skimmed milks increased by 4.6 per cent. Since 2009, purchases of cream increased by 8.3 per cent.

The long term decline in household purchases of milk has been driven by reductions in whole milk. Purchases of semi skimmed milk, which overtook whole milk in the early 1990s and fully skimmed milk, have been generally stable in the last 10 years.

Chart 1.1: UK household purchases of milk, 1974 – 2012



¹ In the context of the Family Food Survey, 'margarine' includes any spread (either block or tub) that contains more than 62% fat.

Bread

Purchases of bread are on a long term downward trend, with white and 'brown and wholemeal' (which account for two thirds of purchases) falling by 10.5 and 8.3 per cent respectively between 2009 and 2012. Purchases are 20 per cent lower than in 2001. Purchases of 'other breads', which includes continental and specialty breads, were 2.5 per cent higher in 2012 than in 2009. Purchases of sandwiches also rose, by 14 per cent, although they remain a small proportion of total bread purchases for the household.

Cheese

Household purchases of cheese show no clear trend since 2009. Natural cheese, which accounts for around 90 per cent of all purchases, fell by 3.8 per cent between 2011 and 2012. Cheddar type cheeses account for around half of all cheese purchases by weight, at 64 grams per person per week.

Meat

Purchases of raw carcase meat have been on a downward trend since 2009, falling by 7.7 per cent. This follows the period prior to 2008 where purchases had been around 10 per cent higher. Beef, which accounts for around half of raw carcase meat purchases, showed a downward trend, declining by 6.8 per cent on 2009. All types of beef generally show a fall in purchases since 2009, except minced beef, which shows a long term upward trend despite a marked fall of 11 per cent between 2011 and 2012. Purchases of pork are relatively unchanged and lamb, whilst 22 per cent down on 2009, shows no clear statistical trend over that period.

Purchases of 'non-carcase meat and meat products' have been relatively stable since 2009, increasing by 0.8 per cent since then. Most cooked and canned meat categories show downward trends. Purchases of uncooked chicken have generally been rising since 2005 and are up by 5.1 per cent from 2009, although this is not a statistically significant trend. Purchases of 'meat based ready meals and convenience meat products' are on an upward trend with a rise of 8.2 per cent between 2009 and 2012.

Fish

There is a significant downward trend in household purchases of fish and fish products, which fell 8.4 per cent between 2009 and 2012 to 144 grams per person per week. Ready meals, which account for about one third of purchases, have been relatively stable, up by 4.5 per cent on 2009. Fresh/frozen white fish, which has generally been declining over the last ten years, was 10 per cent down on 2009, despite a rise from 2011. Purchases of salmon have been stable, whilst herring and other blue fish show a downward trend from 2009.

Soft drinks and beverages

Household purchases of soft drinks were 2.7 per cent lower in 2012 compared to 2009. Within this category, household purchases of 'not low calorie soft drinks' are on a downward trend since 2009 and fell by 27 per cent between 2009 and 2012. This was mirrored by an upward trend in 'low calorie soft drinks' with household purchases 60 per cent higher in 2012 than in 2009.

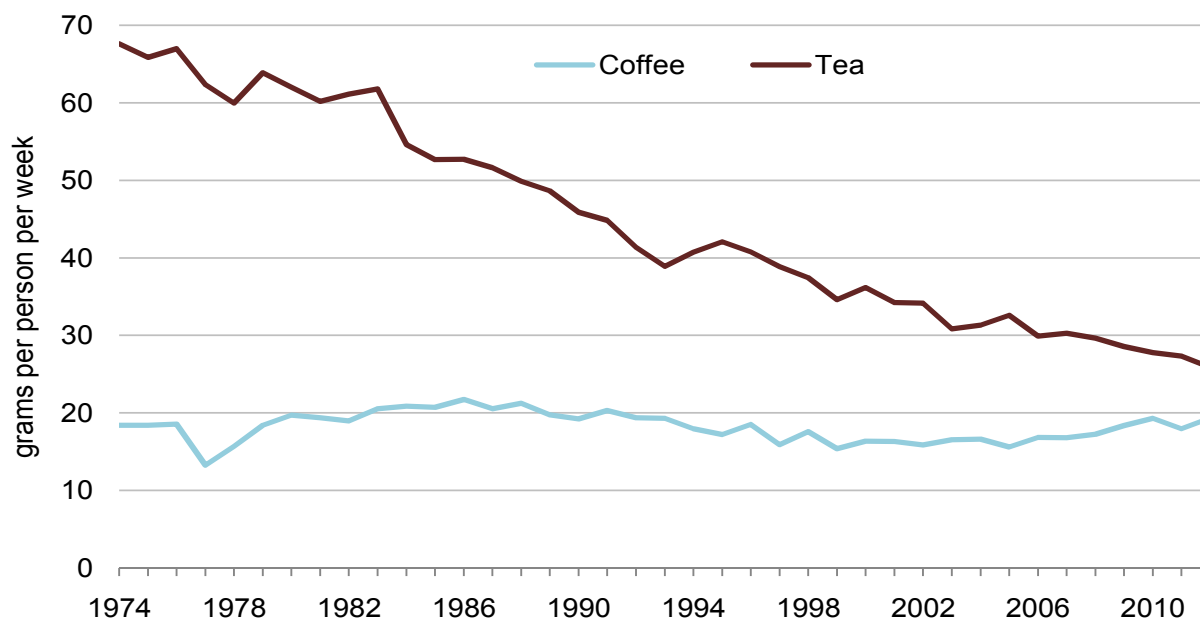
The beverages category mainly comprises tea and coffee – fruit juice and mineral water are covered elsewhere. Purchases of beverages were 2.6 per cent down on 2009 but show no clear significant trend over this period. Over the long term within this category, purchases of tea have declined and are now about one quarter less than they were ten years previously. Coffee (instant and ground/beans) purchases have increased during the same period by 22 per cent.

Alcoholic drinks

The Family Food estimate of the absolute level of intake is likely to be an underestimate due to under-reporting of alcoholic drinks, but the trends are likely to be valid.

Household purchases of alcoholic drinks have been fairly volatile over the last ten years and were 5.9 per cent lower in 2012 than in 2009. Spend on alcoholic drinks for the household in 2012 was 14 per cent higher than in 2009. Intake of alcohol (in grams) is examined in Chapters 2 and 5.

Chart 1.2: UK household purchases of coffee and tea (dry weight), 1974-2012



1.4 Home-grown food

In 2012, 2.7 per cent of fresh fruit and vegetables entering the household came from free sources, mainly gardens and allotments. Following a number of year on year increases, this is down from 5.0 per cent in 2011.

The percentage of eggs entering the household from free sources in 2012 returned to just below 2009 levels, after two years of increase. In 2012, the percentage of eggs entering the household which were free or home produced was 5.0 per cent.

Table 1.1: Percentage of household food home-grown in gardens or allotments

	2009	2010	2011	2012
Beans	29	29	33	28
Potatoes	3	2	7	3
Onions, leeks and shallots	3	3	4	3
Tomatoes	6	7	6	5
All other vegetables	4	3	4	3
Apples	3	10	9	3
Soft fruit	5	8	10	9
All other fruit	8	1	2	1
Overall percentage	3.3	3.6	5.0	2.7
Eggs	5.1	5.6	5.7	5.0

The total amount of home-grown fruit and vegetables in grams per person per week is 53 grams, just over half of the 2011 level, which may reflect the generally poor growing conditions during 2012. In 2012 household purchases of fresh fruit and vegetables (including potatoes) was 1,905 grams. Processed fruit and vegetables e.g. frozen chips and canned baked beans are excluded from the totals. Non-indigenous fruits and vegetables that are not grown in quantity in the UK, such as bananas and melons, are included. Beans grown in a garden or allotment account for 28 per cent of all fresh beans entering the household in 2012, although they only account for around 11 per cent of all home grown fruit and vegetables by weight.

Table 1.2: Quantities of household purchases of food and drink in the UK

		2009	2010	2011	2012	RSE ^(a)	% change since 2011	% change since 2009	trend since 2009 ^(b)
<i>grams per person per week unless otherwise stated</i>									
Milk and cream	(ml)	2003	1897	1904	1901	✓✓✓	-0.2	-5.1	↘
Liquid whole milk (including welfare and school milk)	(ml)	421	352	355	297	✓✓	-16.4	-29.4	↘
Skimmed milks	(ml)	1156	1156	1151	1209	✓✓✓	+5.1	+4.6	
Cream	(ml)	23	24	23	25	✓✓	+6.8	+8.3	
Cheese		116	118	118	114	✓✓✓	-3.6	-1.9	
Cheese, natural		105	107	108	104	✓✓✓	-3.8	-1.5	
Processed cheese		11	11	11	10	✓✓	-2.1	-5.0	
Carcase meat		212	211	204	196	✓✓✓	-4.0	-7.7	↘
Beef and veal		112	114	112	104	✓✓	-7.2	-6.8	↘
Mutton and lamb		46	44	37	36	✓	-0.2	-22	
Pork		54	53	56	55	✓✓	-0.1	+2.5	
Non-carcase meat and meat products		787	805	794	793	✓✓✓	-0.1	+0.8	
Bacon and ham (cooked or uncooked)		111	113	112	108	✓✓	-3.1	-2.0	
Poultry (cooked or uncooked)		246	242	247	251	✓	+1.5	+2.0	
Meat based ready meals and convenience meat products		151	161	157	164	✓✓✓	+4.4	+8.2	↗
Fish		158	151	147	144	✓✓✓	-1.8	-8.4	↘
White fish, fresh, chilled or frozen		23	20	17	21	✓	+18.9	-9.6	
Herrings and other blue fish, fresh, chilled or frozen		6	5	4	4	✓	-2.0	-25.8	↘
Salmon, fresh, chilled or frozen		13	12	12	12	✓	-1.7	-6.9	
Eggs	(no.)	1.6	1.7	1.7	1.8	✓✓✓	+2.7	+8.8	↗
Fats		181	183	170	178	✓✓✓	+5.0	-1.6	
Butter		39	40	40	41	✓✓	+2.6	+5.8	
Margarine ^(e)		24	23	20	24	✓✓	+17.9	+0.1	
Reduced and low fat spread		48	49	46	43	✓	-7.6	-10.6	↘
Sugar and preserves		125	126	126	124	✓✓	-2.1	-1.1	
Potatoes (fresh and processed)		761	742	746	724	✓✓✓	-2.9	-4.8	↘
Vegetables		1103	1107	1090	1086	✓✓✓	-0.4	-1.5	
Fresh green vegetables		201	192	189	183	✓✓✓	-3.2	-8.6	↘
Other fresh vegetables		552	565	550	551	✓✓✓	+0.1	-0.2	
Processed vegetables ^(d)		350	350	351	352	✓✓✓	+0.3	+0.5	
Fruit		1143	1133	1150	1107	✓✓✓	-3.7	-3.2	
Fresh fruit		762	755	764	744	✓✓✓	-2.6	-2.3	
Processed fruit and fruit products		381	378	385	362	✓✓✓	-6.0	-5.0	
Pure fruit juices	(ml)	302	296	307	282	✓✓	-8.0	-6.6	
Bread		656	634	621	615	✓✓✓	-0.8	-6.2	↘
White bread		297	281	259	266	✓✓✓	+2.5	-10.5	↘
Brown and wholemeal bread		173	164	175	158	✓✓✓	-9.7	-8.3	↘
Sandwiches		10	12	12	12	✓	+0.7	+13.6	
Cakes, buns and pastries		158	153	151	149	✓✓✓	-1.0	-5.7	↘
Biscuits and crispbreads		169	162	164	160	✓✓✓	-2.5	-5.2	↘
Other cereals and cereal products		548	556	547	542	✓✓✓	-1.0	-1.1	
Beverages		54	56	53	53	✓✓✓	-0.2	-2.6	
Soft drinks ^(c)	(ml)	1678	1718	1630	1633	✓✓✓	+0.2	-2.7	
Not low calorie	(ml)	1208	1139	954	884	✓	-7.4	-26.8	↘
Low calorie	(ml)	469	579	676	749	✓✓	+11	+59.6	↗
Confectionery		134	131	134	126	✓✓✓	-5.5	-5.9	
Alcoholic drinks	(ml)	744	762	728	700	✓✓	-3.8	-5.9	

(a) Relative Standard Error: 3 ticks: < 2.5%, 2 ticks: 2.5% - 5%, 1 tick: 5% - 10%, no ticks: 10% - 20%, cross: >20%, - not available.

(b) An arrow indicates a statistically significant linear trend since 2009, see website for more details.

(c) Converted to unconcentrated equivalent by applying a factor of 5 to concentrated and low calorie concentrated soft drinks.

(d) Includes frozen, canned and dried vegetables.

(e) In the context of Family Food Survey, 'margarine' includes anyspread (either block or tub) that contains more than 62% fat.

1.5 Household spending on food

The average weekly expenditure on all household food and drinks in 2012 was £29.29 per person, an increase of 4.6 per cent on 2011. Total expenditure on household food and non-alcoholic drink rose by 4.3 per cent in 2012 to £25.98 and was 8.9 per cent higher than in 2009. Table 1.3 shows significant upward trends in household expenditure between 2009 and 2012 in most categories, notably:

- Total fats and oils - spending increased by 17 per cent. Within this category spending on butter increased by 36 per cent.
- Sugar and preserves - spending increased 16 per cent,
- Fruit and fruit juice - spending increased by 12 and 14 per cent respectively and
- Soft drinks and beverages (e.g. tea and coffee) - spending increased by 13 and 16 per cent respectively.

The only statistically significant 4 year downward trend was on the amount spent on liquid whole milk, down by 37 per cent since 2009 and 19 per cent on 2011. Chapter 5 examines the effects of food price rises on purchasing levels.

Table 1.3: UK expenditure on food and drink, 2009-2012

	2009	2010	2011	2012	RSE ^(a)	% change since 2011	% change since 2009	sig ^(b)
Number of households in sample	5825	5263	5692	5596				
Number of persons in sample	13760	12196	13448	13196				
Food price inflation	5.3	3.1	5.9	3.3				
Household expenditure	<i>Pence per person per week</i>							
Milk and cream	200	189	187	188	✓✓✓	+0.8	-6.0	yes
Liquid whole milk	28	24	22	18	✓✓	-19.1	-37.0	yes
Cheese	75	79	80	81	✓✓✓	+0.3	+7.7	yes
Carcase meat	127	130	129	136	✓✓✓	+5.5	+7.2	yes
Non-carcase meat and meat products	423	441	449	471	✓✓✓	+4.8	+11.3	yes
Fish	117	117	120	124	✓✓✓	+2.7	+5.9	yes
Eggs	27	28	28	30	✓✓✓	+7.9	+12.4	yes
Fats and oils	47	50	53	55	✓✓✓	+3.7	+17.3	yes
Butter	15	16	19	20	✓✓	+8.4	+36.4	yes
Sugar and preserves	20	21	21	23	✓✓	+7.1	+16.0	yes
Potatoes (fresh and processed)	111	113	116	121	✓✓✓	+4.4	+9.6	yes
Fruit and vegetables excluding potatoes	419	441	442	460	✓✓✓	+4.1	+9.9	yes
Vegetables excluding potatoes	218	230	227	236	✓✓✓	+4.0	+8.3	yes
Fruit	200	211	215	224	✓✓✓	+4.2	+11.7	yes
Fresh apples	23	23	22	24	✓✓✓	+7.5	+3.8	
Pure fruit juices	32	33	37	37	✓✓	-1.8	+14.2	yes
Cereals	452	461	474	497	✓✓✓	+4.9	+9.9	yes
Bread	118	116	119	123	✓✓✓	+3.9	+4.7	yes
Beverages	48	51	51	56	✓✓✓	+9.9	+15.7	yes
Soft drinks	85	89	93	96	✓✓✓	+3.7	+13.3	yes
Confectionery	93	96	101	102	✓✓✓	+1.3	+10.0	yes
Alcoholic drinks	289	307	308	330	✓✓	+7.4	+14.4	yes
Beers	21	21	19	21	✓	+8.8	+1.1	
Lagers and continental beers	48	48	48	49	✓✓	+3.4	+3.4	
All household food and non-alcoholic drink	2386	2450	2492	2598	✓✓✓	+4.3	+8.9	yes
All household food and drink	2675	2757	2799	2929	✓✓✓	+4.6	+9.5	yes
Eating out expenditure								
Total expenditure on alcoholic drink eaten out	308	312	314	314	✓✓	-0.2	+1.9	
Total expenditure on food and drink eaten out (exc alc drks)	826	854	879	895	✓✓✓	+1.8	+8.4	yes
Total expenditure on food and drink eaten out	1133	1166	1193	1209	✓✓✓	+1.3	+6.6	yes
Expenditure on all food and drink	3808	3923	3993	4137	✓✓✓	+3.6	+8.6	yes

(a) Relative Standard Error: 3 ticks: < 2.5%, 2 ticks: 2.5% - 5%, 1 tick: 5% - 10%, no ticks: 10% - 20%, cross: >20%, - not available.

(b) "yes" if the change since 2009 is statistically significant (if the change is more than twice its standard error).

1.6 Trends in spending in real terms

Table 1.4 shows expenditure in real terms, which means that the values are adjusted to remove the effects of inflation. The figures are derived by deflating expenditure at current prices by the Retail Price Index (all items). In 1975, households spent the equivalent of £26.39 per person per week on household food and drink. This is not directly comparable with the 2012 figure of £25.98 as it does not include spending on confectionery and soft drinks and excludes Northern Ireland.

The Retail Price Index (RPI), a measure of inflation, rose by 2.7 per cent between 2011 and 2012 and by 13 per cent between 2009 and 2012. Removing this overall rise in prices from the changes in expenditure on food and drink shows how expenditure in real terms changed since 2009.

Since 2009, household spending on food and drink fell by 3.1 per cent and eating out expenditure by 5.6 per cent. Spending on alcoholic drinks for household consumption increased by 1.3 per cent over the same period, whilst that bought for consumption outside the home fell by 9.8 per cent. Chapter 5 examines in more detail the effects of food price rises on household spending.

Table 1.4: UK expenditure on food and drink at constant 2012 prices

	1975 (a) (c)	1985 (a) (c)	1995 (a) (b)	2007	2008	2009	2010	2011	2012	% change since 2011	% change since 2009
Retail price index (1975 = 100)	100	277	436	604	629	625	654	688	707	2.7	13.0
	£ per person per week										
Household food and drink			27.65	29.16	28.80	30.23	29.78	28.74	29.29	1.9	-3.1
Food and drink eaten out			8.74 ^(d)	13.29	12.59	12.81	12.59	12.25	12.09	-1.4	-5.6
All food and drink			36.39	42.45	41.39	43.03	42.37	40.99	41.37	0.9	-3.9
Household food and drink exc. alcohol	26.39	23.41	24.96	25.88	25.85	26.96	26.46	25.58	25.98	1.6	-3.6
Food and drink eaten out exc. alcohol			6.46 ^(d)	9.31	9.18	9.33	9.22	9.03	8.95	-0.9	-4.1
All food and drink exc. alcohol			31.42	35.18	35.03	36.29	35.68	34.61	34.93	0.9	-3.8
% eaten out			21%	26%	26%	26%	26%	26%	26%		
Household alcoholic drink			2.69	3.28	2.95	3.26	3.32	3.16	3.30	4.6	1.3
Alcoholic drink eaten out			2.28 ^(d)	3.98	3.41	3.48	3.37	3.23	3.14	-2.8	-9.8
All alcoholic drinks			4.97	7.26	6.36	6.74	6.69	6.38	6.44	0.9	-4.4
% of alcoholic drinks eaten out			46%	55%	54%	52%	50%	51%	49%		

(a) Great Britain only.

(b) Estimates on eating out in 1995 are based on National Food Survey which was considered less reliable.

(c) Excludes confectionery, soft and alcoholic drinks.

(d) Whilst National Food Survey food purchases were adjusted, eating out figures were not.

1.7 Takeaway food and drink

Takeaway purchases for consumption within the home are classed as household purchases (see [Methodology papers](#)).

Table 1.5 reports on the takeaway part of the major food groups. Between 2009 and 2012, purchases of takeaway food brought home have remained similar. Expenditure on takeaway foods was £1.79 per person per week in 2012, 11 per cent higher than in 2009.

Table 1.5: UK household purchased quantities and expenditure on takeaway food brought home

Purchases	2009	2010	2011	2012	RSE ^(a)	% change since 2011	% change since 2009	trend since 2009 ^(b)
<i>grams per person per week</i>								
Total Meat	57	59	55	56	✓✓	1.5	-1.3	
Total Fish	11	10	11	11	✓✓	-6.8	-8.5	
Total Vegetables	47	45	46	43	✓✓	-6.1	-8.1	
Total Bread	4	5	4	5	✓	32.8	22.3	
Total Other cereals ^(c)	38	42	40	44	✓✓	8.9	16.4	↗
Total Miscellaneous	2	2	2	2	✓	-4.5	2.6	

UK Expenditure on takeaway food purchases brought home

Expenditure	2009	2010	2011	2012	RSE ^(a)	% change since 2011	% change since 2009
<i>pence per person per week</i>							
Total Meat	67	73	70	72	✓✓	2.3	7.6
Total Fish	19	17	19	18	✓	-5.4	-7.1
Total Vegetables	27	26	27	27	✓✓	-1.1	0.3
Total Bread	6	7	6	8	✓	31.3	30.8
Total Other cereals ^(c)	39	46	45	51	✓✓	12.7	31.4
Total Miscellaneous	3	3	3	3	✓	1.0	2.9
Total	161	172	171	179			

(a) Relative Standard Error: 3 ticks: < 2.5%, 2 ticks: 2.5% - 5%, 1 tick: 5% - 10%, no ticks: 10% - 20%, cross: >20%, - not available.

(b) An arrow indicates a statistically significant linear trend since 2009, see website for more details.

(c) Other cereals including pastries, rice, pasta and noodles, pizza and savoury snacks such as popcorn, popadoms and prawn crackers.

1.8 Eating out purchases

Measured in grams, the amount of food and drink purchased for eating out was 12 per cent lower in 2012 than in 2009. In terms of money spent in actual prices (not adjusted for inflation), it was 6.6 per cent higher in 2012 than in 2009 at £12.09 per person per week for all food and alcoholic drinks. Spending on food and non-alcoholic drinks eaten out was £8.95 in 2012. Spending on alcoholic drinks was £3.14 per person per week in 2012, unchanged from 2011 but 1.9 per cent higher than in 2009. See Table 1.3.

There are downward trends in purchases of some categories of eating out food and drink since 2009, notably:

- Confectionery down 27 per cent,
- Alcoholic and soft drinks down 21 and 11 per cent respectively,
- Crisps, nuts and snacks down 12 per cent and
- Biscuits and chocolate down 14 per cent.

There are no categories with a significant upward trend since 2009 (Table 1.6).

Table 1.6: UK eating out purchased quantities of food and drink, 2009-2012

		2009	2010	2011	2012	RSE ^(a)	% change since 2011	% change since 2009	trend since 2009 ^(b)
Number of households in sample		5825	5263	5692	5596				
Number of persons in sample		13760	12196	13448	13196				
Eating out purchases		<i>grams per person per week unless otherwise stated</i>							
Alcoholic drinks									
average across whole population	ml	449	413	394	355	✓✓	-9.8	-20.9	↘
average excluding under 14's	ml	538	494	472	426	✓✓	-9.7	-20.9	↘
Soft drinks inc. milk drinks	ml	286	279	269	254	✓✓✓	-5.7	-11.2	↘
Other food products ^(c)		127	144	118	103	✓✓	-12.8	-19.1	↘
Beverages	ml	120	117	117	118	✓✓	+0.9	-1.7	
Meat and meat products		76	75	75	76	✓✓✓	+1.5	+0.4	
Sandwiches		67	67	64	63	✓✓✓	-1.4	-5.4	
Potatoes (fresh and processed)		65	62	62	62	✓✓✓	-0.6	-4.6	
Indian, Chinese or Thai food		28	31	30	28	✓✓	-4.9	-0.1	
Vegetables		28	26	27	27	✓✓	-0.3	-4.9	
Ice cream, desserts and cakes		26	25	25	24	✓✓	-4.3	-9.0	↘
Cheese and egg dishes or pizza		21	22	22	21	✓✓	-3.7	+0.7	
Salads		17	17	16	17	✓	+8.8	+3.9	
Rice, pasta or noodles		14	15	15	14	✓✓	-0.8	+1.3	
Fish and fish products		14	14	13	14	✓✓	+2.4	+0.7	
Fresh and processed fruit		12	12	12	11	✓✓	-4.5	-4.4	
Confectionery		11	10	9	8	✓✓	-11.4	-26.8	↘
Soups		9	8	10	9	✓	-9.4	+7.5	
Bread		7	7	7	7	✓✓	-3.8	-10.4	
Crisps, nuts and snacks		7	7	7	6	✓✓	-8.3	-12.2	↘
Biscuits and chocolate		3	3	3	2	✓✓	-7.5	-13.9	
Yoghurt and fromage frais		2	2	2	2		-9.7	-10.3	
Breakfast cereals		1	0	1	1		+69.1	+41.8	

(a) Relative Standard Error: 3 ticks: < 2.5%, 2 ticks: 2.5% - 5%, 1 tick: 5% - 10%, no ticks: 10% - 20%, cross: >20%, - not available.

(b) An arrow indicates a statistically significant linear trend since 2009, see website for more details.

(c) Other food products mostly contains unspecified meals such as free school meals and free meals through work.

Chapter 2 Energy and nutrient intakes

2.1 Overview

Food and drink purchases are converted to energy and nutrient intakes in this chapter. In this Report, the term “intake” is used as a proxy for the energy/nutrient content of food purchases. Trends over four years are examined and comparisons made with the UK Dietary Reference Values where appropriate.

- Total energy intake from all food and drink is on a downward trend, 4.1 per cent lower in 2012 than in 2009. Intake is still around 5 per cent higher than the Estimated Average Requirement.
- Intakes of Non Milk Extrensic Sugars (NMES) and saturated fatty acids, measured as a percentage of food and drink energy (excluding alcohol), were both lower in 2012 than in 2009. Both continue to exceed recommended maximum levels.
- All vitamin and mineral intakes except potassium reached at least 100 per cent of the population-weighted recommended minimum Reference Nutrient Intake, where one is set.
- The average intake of sodium, excluding table salt, is on a downward trend but was 82 per cent above the recommended maximum Reference Nutrient Intake in 2012.

More detailed series for all years from 1974 onwards are available to download in [Excel format](#). Estimates for some types of food and therefore some nutrient intakes are available from 1940.

2.2 Nutrient conversion

Estimated nutrient intakes are calculated from food purchases using nutrient composition data supplied by Public Health England (PHE). The majority of the data are from PHE’s nutrient analysis programme, supplemented by values from manufacturers and retailers. The methodology paper, ‘[Reference nutrient intakes](#)’ documents which food codes have been updated with new nutrient composition data in the last 4 years.

The nutrient conversion excludes inedible parts of purchased foods, such as fish heads, banana peels; it assumes all food is eaten. Intakes from dietary supplements are not included in any of the tables.

Definitions of certain nutritional terms can be found in the [glossary](#).

2.3 Reference Nutrient Intakes

Recommendations for energy and nutrient intakes for the general UK population and age/sex sub-groups have been set by expert scientific advisory committees. The Committee on Medical Aspects of Food and Nutrition Policy (COMA) set dietary reference values for population intakes of energy and a range of nutrients. Its successor the Scientific Advisory Committee on Nutrition (SACN) has recently published revised [Dietary Reference Values](#) for the energy requirements of the population. For consistency with previous years’ estimates, the COMA reference values for energy have been used in this report.

Many tables in this chapter compare nutrient intakes derived from the survey with Reference Nutrient Intakes¹ (RNIs). These RNIs represent the best estimate of the amount of a nutrient that is enough, or more than enough, for about 97.5 per cent of people in a group. If average intake of a group is at or above the level of the RNI, then the risk of deficiency in the group is very small.

Energy intake is compared against the Estimated Average Requirement (EAR) for a group. Estimates of energy requirements for different populations are termed EARs and are defined as the energy intake estimated to meet the average requirements of the group. About half the people in the group will usually need more energy than the EAR and half the people in the group will usually need less.

The Reference Nutrient Intakes and Estimated Average Requirements and the calculation of weighted average values for the population are described in the methodology paper ‘[Reference nutrient intakes](#)’.

¹ Reference Nutrient Intakes from Department of Health, *Dietary Reference Values for Food Energy and Nutrients for the United Kingdom*, HMSO, 1991

2.4 Energy and nutrient intakes

Energy

Based on food and drink purchases, total energy intake per person was 4.1 per cent lower in 2012 than in 2009. This is a statistically significant downward trend over this four year period that confirms the longer term downward trend already apparent since the mid 1960s. Total energy intake was an average of 2209 kcal per person per day in 2012.

Energy intake from eating out was 12.5 per cent lower in 2012 than in 2009. Average energy intake from eating out was 219 kcal per person per day in 2012 accounting for 10 per cent of total energy intake.

Sodium (excluding table salt)

The total intake of sodium continues to fall, with levels in 2012 3.7 per cent lower than in 2009, a statistically significant downwards trend. Eating out accounted for 10.5 per cent of sodium intake. Sodium intake from eating out fell 11 per cent in 2012 compared to 2009. Major contributors to the sodium content of household food purchases in 2012 include: 'non-carcase meat and meat products', bread and 'other food'. The contribution that these food groups make to energy intake is shown in Table 2.4.

The figures do not include purchases of table salt since table salt can be used for a variety of household tasks other than for consumption. Salt that might have been added to food during cooking or at the table is therefore excluded from the estimate.

Non-milk extrinsic sugars

Non-milk extrinsic sugars are a category of sugars that are considered to contribute to dental decay. Extrinsic sugars are any sugars not contained within the cellular structure of a food, either because they have been added to a food in the form of table sugar, honey etc; or because the food has been processed which has released sugars from the cell structure e.g. fruit juice. The sugar naturally present in milk and milk products (lactose) is excluded from the definition as it is not considered to have adverse effects on teeth.

Total intake of non-milk extrinsic sugars is on a downwards trend since 2009 having fallen 8.8 per cent between 2009 and 2012. Intake of NMES, as measured as a percentage of food and drink energy (excluding alcohol) was 13.5 per cent, 5.0 per cent below the 2009 level. The household food groups that contribute most to total NMES intakes are 'sugar and preserves', soft drinks and confectionery (Table 2.4). NMES provided 11.2 per cent of eating out food and drink energy in 2012. Eating out purchases account for around 8.0 per cent of total NMES intake.

Fatty acids

Total intake of saturated fatty acids (measured in grams per person per day) continued on a downward trend, falling by 6.2 per cent between 2009 and 2012. In 2012, 14.2 per cent of food and drink energy (excluding alcohol) was derived from saturated fatty acids, a level unchanged for three years (Tables 2.1 and 2.2).

Saturated fatty acids provided 13.2 per cent of eating out food and drink energy in 2012. Eating out purchases provided 8.8 per cent of total saturated fatty acid intakes. Over the four years 2009 to 2012, intake of unsaturated fatty acids showed a downward trend. Monounsaturated fatty acids declined by 1.3 per cent, while intakes of polyunsaturates fell by 4.7 per cent.

Fibre

Following three years when it was unchanged, fibre intake in 2012 fell to an average of 14.4 grams per person per day, a 4.9 per cent fall from 2009.

Table 2.1 UK average energy and nutrient intakes from all food and drink

		2009	2011	2012	% change since 2011	% change since 2009	Trend since 2009	% from food eaten out in 2012
Total energy and nutrient intakes ^(a)		<i>average intake per person per day</i>						
Energy	kcal	2304	2245	2209	-1.6	-4.1	↘	9.9
	MJ	9.6	9.4	9.2	-1.6	-4.1	↘	9.9
Energy excluding alcohol	kcal	2233	2176	2143	-1.5	-4.0		9.5
Total Protein	g	78.6	77.2	75.9	-1.7	-3.4		10.7
Fat	g	95	92	91	-1.0	-4.5	↘	10.7
Fatty acids:								
Saturates	g	36.0	34.3	33.7	-1.7	-6.2	↘	8.8
Monounsaturates	g	36.0	35.8	35.5	-0.8	-1.3	↘	11.4
Polyunsaturates	g	17.2	16.2	16.3	+1.0	-4.7	↘	12.5
Cholesterol	mg	262	252	249	-1.1	-4.9	↘	12.9
Carbohydrate ^(b)	g	282	276	271	-1.9	-3.8	↘	8.2
Total sugars	g	129	124	120	-3.3	-7.4	↘	6.8
Non-milk extrinsic sugars	g	85	81	77	-4.0	-8.8	↘	7.9
Starch	g	153	152	151	-0.7	-1.0		9.4
Fibre ^(c)	g	15.2	15.2	14.4	-4.9	-4.9	↘	10.1
Alcohol	g	10.2	9.8	9.4	-4.0	-7.5	↘	22.9
Calcium	mg	983	955	937	-1.8	-4.7	↘	7.0
Iron	mg	11.9	11.8	11.4	-3.9	-4.3	↘	9.5
Zinc	mg	9.3	9.2	9.0	-2.3	-3.9	↘	10.3
Magnesium	mg	289	287	284	-0.8	-1.5	↘	9.0
Sodium ^(d)	g	2.82	2.74	2.72	-0.9	-3.7	↘	10.5
Potassium	g	3.23	3.21	3.16	-1.3	-1.9	↘	10.2
Thiamin	mg	1.67	1.62	1.78	+9.5	+6.1	↗	10.0
Riboflavin	mg	1.92	1.92	1.89	-1.9	-1.6		6.9
Niacin equivalent	mg	34.3	33.6	33.0	-2.0	-3.7	↘	12.0
Vitamin B ₆	mg	2.5	2.4	2.1	-10.2	-12.8	↘	13.9
Vitamin B ₁₂	µg	6.4	6.2	6.1	-2.0	-4.5	↘	8.5
Folate	µg	299	298	282	-5.2	-5.7	↘	12.5
Vitamin C	mg	79	77	82	+6.7	+4.3	↗	9.3
Vitamin A:								
Retinol	µg	530	533	521	-2.2	-1.6		7.6
β-carotene	µg	2191	2187	2557	+16.9	+16.7	↗	12.0
Retinol equivalent	µg	897	900	950	+5.5	+5.8	↗	9.5
Vitamin D	µg	3.07	3.10	3.06	-1.4	-0.2		10.0
Vitamin E	mg	12.22	12.33	12.17	-1.3	-0.4		12.0
As a percentage of food and drink energy excluding alcohol								
Fat	%	38.5	38.1	38.3	+0.6	-0.5		
Fatty acids:								
saturates	%	14.5	14.2	14.2	-0.2	-2.3		
monounsaturates	%	14.5	14.8	14.9	+0.7	+2.8		
polyunsaturates	%	6.9	6.7	6.9	+2.5	-0.8		
Carbohydrate	%	47.4	47.6	47.5	-0.4	+0.2		
Non-milk extrinsic sugars	%	14.2	13.9	13.5	-2.5	-5.0		
Protein	%	14.1	14.2	14.2	-0.2	+0.7		

Table 2.1 continues over the page

Table 2.1 continued

		2009	2011	2012	% change since 2011	% change since 2009	Trend since 2009	% from food eaten out in 2012
As a percentage of weighted reference nutrient intake^(f)								
Energy ^(e)	%	110	107	105	-1.5	-4.0		
Energy exc alcohol ^(e)	%	106	104	102	-1.5	-3.9		
Protein	%	171	168	166	-1.6	-3.3		
Calcium	%	143	139	136	-1.7	-4.4		
Iron	%	115	115	111	-3.6	-3.8		
Zinc	%	117	115	112	-2.3	-3.9		
Magnesium	%	109	108	107	-0.8	-1.3		
Sodium ^(d)	%	189	184	182	-0.8	-3.6		
Potassium	%	101	100	99	-1.2	-1.8		
Thiamin	%	199	193	211	+9.5	+6.2		
Riboflavin	%	168	168	165	-1.8	-1.5		
Niacin equivalent	%	246	242	237	-1.9	-3.7		
Vitamin B ₆	%	200	194	175	-10.2	-12.8		
Vitamin B ₁₂	%	460	449	440	-2.0	-4.4		
Folate	%	159	158	150	-5.1	-5.5		
Vitamin C	%	205	200	214	+6.7	+4.3		
Vitamin A (retinol equivalent)	%	144	145	153	+5.5	+5.9		

(a) Contributions from pharmaceutical sources are not recorded by the survey.

(b) Available carbohydrate, calculated as monosaccharide equivalent.

(c) As non-starch polysaccharides.

(d) (i) Excludes sodium from table salt (ii) In May 2003 the Scientific Advisory Committee Nutrition recommended that average salt intake for adults should not exceed 6 g/day, equivalent to 2.4 grams of sodium.

(e) As a percentage of Estimated Average Requirement.

(f) Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. RNI values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group. Weighted RNIs, based on the age/sex composition of the survey sample, have been calculated for comparison with population average intakes.

Alcohol

Alcohol intake fell 7.5 per cent in 2012 to 9.4 grams per person per day. Since 2009 intake has been on a downward trend. Eating out purchases accounted for 23 per cent of total alcohol intake in 2012. In 2012, eating out intakes of alcohol were 22 per cent lower than in 2009 and showing a significant downward trend.

Vitamins and minerals

Prior to 2012, "availability factors" were applied to a range of foods that are purchased raw but generally eaten cooked, to take account of vitamin losses during cooking. Following a review in 2012, which highlighted some apparent inconsistencies in the choice of foods and values, it was decided to discontinue the use of these factors. This should be borne in mind when interpreting changes in some vitamin 'intakes' between 2011 and 2012. A more detailed explanation, including a list of the composition values and food products affected can be found in the methodology paper "[Reference nutrient intakes](#)".

Over the four years 2009 to 2012, intakes of most vitamins and minerals showed downward trends, notably vitamin B₆ and folate, with decreases of 13 and 5.7 per cent respectively. Over the same period, thiamin and vitamin C showed upward trends. These trends are partly explained by changes in food composition data over time, due to new analytical data becoming available or changes in the formulation of food products.

Table 2.2 UK average energy and nutrient intakes from household and eating out food and drink

		2012 Household	% change since 2009 Household	Trend since 2009	2012 Eating out	% change since 2009 Eating out	Trend since 2009
Total energy and nutrient intakes ^(a)		<i>average intake per person per day</i>					
Energy	kcal	1990	-3.1	↘	219	-12.5	↘
	MJ	8.3	-3.1	↘	0.9	-12.5	↘
Energy excluding alcohol	kcal	1939	-3.1		204	-11.6	
Total Protein	g	67.8	-2.6		8.1	-9.1	↘
Vegetable Protein	g	41.1	-2.8	↘			
Animal Protein	g	26.7	-2.4	↘			
Fat	g	81	-3.4	↘	10	-12.3	↘
Fatty acids:							
Saturates	g	30.8	-5.5	↘	3.0	-13.6	↘
Monounsaturates	g	31.5	0.3		4.0	-12.0	↘
Polyunsaturates	g	14.3	-3.7	↘	2.0	-11.3	↘
Cholesterol	mg	217	-4.0	↘	32	-10.5	↘
Carbohydrate ^(b)	g	249	-3.0	↘	22	-11.9	↘
Total sugars	g	111	-6.7	↘	8	-15.6	↘
Non-milk extrinsic sugars	g	71	-8.0	↘	6	-17.1	↘
Starch	g	137	0.0		14	-9.7	↘
Fibre ^(c)	g	13.0	-4.0	↘	1	-11.7	↘
Alcohol	g	7.3	-2.0		2.2	-22.2	↘
Calcium	mg	872	-4.3	↘	65	-10.1	↘
Iron	mg	10.3	-3.6	↘	1.1	-10.3	↘
Zinc	mg	8.0	-3.2	↘	0.9	-9.9	↘
Magnesium	mg	259	-0.3		25	-11.8	↘
Sodium ^(d)	g	2.43	-2.83	↘	0.29	-10.8	↘
Potassium	g	2.84	-0.69		0.32	-11.7	↘
Thiamin	mg	1.60	8.46	↗	0.18	-11.0	↘
Riboflavin	mg	1.76	-0.73		0.13	-11.5	↘
Niacin equivalent	mg	29.0	-2.8	↘	4.0	-10.0	↘
Vitamin B ₆	mg	1.8	-12.9	↘	0.3	-12.1	↘
Vitamin B ₁₂	µg	5.6	-4.0	↘	0.5	-9.8	↘
Folate	µg	247	-4.6	↘	35	-12.7	↘
Vitamin C	mg	75	6.3	↗	8	-12.3	↘
Vitamin A:							
Retinol	µg	482	-0.5		39	-13.3	↘
β-carotene	µg	2251	22.9	↗	306	-14.7	↘
Retinol equivalent	µg	859	8.5	↗	90	-14.1	↘
Vitamin D	µg	2.75	0.7		0.31	-7.5	↘
Vitamin E	mg	10.71	1.2		1.46	-10.8	↘
As a percentage of food and drink energy excluding alcohol							
Fat	%	37.8	-0.3		43.0	-0.7	
Fatty acids:							
Saturates	%	14.3	-2.4		13.2	-2.2	
Monounsaturates	%	14.6	3.5		17.8	-0.3	
Polyunsaturates	%	6.6	-0.6		9.0	0.4	
Carbohydrate	%	48.1	0.1		41.0	-0.3	
Non-milk extrinsic sugars	%	13.8	-5.0		11.2	-6.1	
Protein	%	14.0	0.5		16.0	2.9	

Table 2.2 continues over the page

Table 2.2 continued

		2012 Household	% change since 2009 Household	Trend since 2009	2012 Eating out	% change since 2009 Eating out	Trend since 2009
As a percentage of weighted Reference Nutrient Intake ^(f)							
Energy ^(e)	%	95	-3.0		10	-12.4	
Energy excluding alcohol ^(e)	%	93	-3.0		10	-11.6	
Protein	%	148	-2.5		18	-9.0	
Calcium	%	127	-4.0		9	-9.9	
Iron	%	100	-3.2		11	-9.9	
Zinc	%	101	-3.2		12	-9.9	
Magnesium	%	98	-0.2		10	-11.6	
Sodium ^(d)	%	163	-2.7		19	-10.7	
Potassium	%	89	-0.5		10	-11.5	
Thiamin	%	190	8.5		21	-10.9	
Riboflavin	%	154	-0.7		11	-11.5	
Niacin equivalent	%	208	-2.8		28	-9.9	
Vitamin B ₆	%	150	-12.9		24	-12.1	
Vitamin B ₁₂	%	402	-3.9		37	-9.7	
Folate	%	131	-4.4		19	-12.6	
Vitamin C	%	194	6.4		20	-12.3	
Vitamin A (retinol equivalent)	%	138	8.5		15	-14.1	

(a) Contributions from pharmaceutical sources are not recorded by the survey.

(b) Available carbohydrate, calculated as monosaccharide equivalent.

(c) As non-starch polysaccharides.

(d) (i) Excludes sodium from table salt (ii) In May 2003 the Scientific Advisory Committee Nutrition recommended that average salt intake for adults should not exceed 6 g/day, equivalent to 2.4 grams of sodium.

(e) As a percentage of Estimated Average Requirement.

(f) Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. RNI values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group. Weighted RNIs, based on the age/sex composition of the survey sample, have been calculated for comparison with population average intakes.

2.5 Major sources of energy from household food purchases

A third of energy from household purchases (655 kcal per person per day) is derived from a combination of:

- Non-carcase meat and meat products – 10.7 per cent (212 kcal),
- Bread – 10.2 per cent (204 kcal) and
- Other cereal products (such as oat products, breakfast cereal, rice, pasta and pizza) - 12.0 per cent (239 kcal).

Table 2.3 Contribution to total household energy intakes from selected foods

	Energy - kcal	% of household food and drink energy ^(a)
Non-carcase meat and meat products		
	<i>average per person per day</i>	
Meat based ready meals and convenience meat products	41	2.0
Chicken - whole or part	35	1.7
Sausages, uncooked - pork	25	1.3
Meat pies, pasties and puddings - frozen or not frozen	19	1.0
Bacon and ham, uncooked	19	0.9
Takeaway meats	13	0.6
Meat pies and sausage rolls, ready to eat	11	0.6
Ham and bacon	9	0.5
Burgers - frozen or not frozen	8	0.4
Cooked poultry (excluding canned)	7	0.4
All other non-carcase meat and meat products	26	1.3
Total	212	10.7
Bread		
White bread (inc premium and softgrain)	84	4.2
Other bread	71	3.6
Brown and wholemeal bread	49	2.5
Total	204	10.2
Other cereals and cereal products		
Breakfast cereals	67	3.3
Other cereal convenience foods	39	2.0
Pasta	37	1.9
Rice	36	1.8
Pizza	29	1.5
Oatmeal and oat products	12	0.6
All other cereals and cereal products	18	0.9
Total	239	12.0

(a) includes energy from alcoholic drinks

A further third of energy intake from household purchases (656 kcal per person per day) is derived from a combination of:

- Fats (including butter, fat spreads and vegetable oils) – 8.7 per cent (174 kcal),
- Milk, yoghurt and fromage frais, milk desserts and cream - 8.4 per cent (168 kcal),
- Biscuits – 5.4 per cent (107 kcal),
- Processed vegetables and potatoes (including frozen, canned and dried) - 6.4 per cent (128 kcal) and
- Confectionery – 4.0 per cent (79 kcal).

The remaining third of daily energy from household food and alcoholic drinks comes from a range of foods including, carcase meat, fresh fruit and vegetables, fish, cheese, fresh potatoes, soft drinks and alcoholic drinks (Table 2.4).

Table 2.4 Intakes from different types of household foods

	Energy	Saturated Fat fatty acids	Calcium	Iron	Non-milk extrinsic sugars	Sodium	Folate	Vitamin C	β-carotene	Vitamin A (Retinol equiv.)	
	<i>average per person per day</i>										
	kcal	grams	grams	mg	mg	grams	mg	µg	mg	µg	µg
Milk and cream ^(a)	168	7.2	4.5	331	0.2	3.0	129	18.2	3.9	41	91
Cheese	58	4.7	3.0	97	..	-	109	4.7	-	23	52
Carcase meat	53	3.5	1.5	2	0.3	-	17	2.6	-	..	..
Non-carcase meat and meat products	212	13.3	4.8	30	1.2	0.1	525	11.8	2.3	70	162
Fish	29	1.4	0.3	12	0.2	..	66	2.6	0.1	5	3
Eggs	16	1.1	0.3	6	0.2	-	19	5.9	-	-	16
Fats and oils	174	19.1	5.9	4	..	0.2	84	11.0	..	81	147
Sugar and preserves	63	..	..	3	0.1	16.7	4	0.1	0.3	1	..
Fresh potatoes	47	0.1	..	4	0.2	-	2	8.6	7.7	-	-
Fresh green vegetables	5	0.1	..	9	0.1	-	2	13.5	6.0	80	13
Other fresh vegetables	17	0.2	0.1	15	0.3	-	8	17.9	6.6	1433	239
Processed vegetables	128	5.2	0.9	25	0.9	0.7	179	23.4	6.3	270	49
Fresh fruit	43	0.3	0.1	9	0.2	-	60	11.2	15.4	30	5
Processed fruit	49	2.1	0.4	9	0.2	5.3	12	11.8	14.0	17	3
Bread	204	2.4	0.6	125	1.7	0.1	418	26.3	..	2	7
Flour	37	0.1	..	10	0.2	-	..	1.7	-	-	-
Cakes, buns and pastries	73	3.1	1.3	16	0.3	4.8	64	2.4	0.2	4	13
Biscuits	107	4.9	2.5	27	0.5	5.4	76	2.6	..	3	1
Other cereal products ^(b)	239	4.7	1.5	71	2.3	4.3	228	41.6	0.7	42	24
Beverages	6	0.1	..	6	0.2	0.6	7	8.1	..	..	1
Other food ^(c)	82	4.4	1.3	24	0.4	6.3	385	14.3	0.6	103	19
Soft drinks	45	-	-	9	..	11.9	15	2.8	10.7	44	7
Confectionery	79	3.3	1.8	20	0.2	10.8	17	1.5	..	5	6
Alcoholic drinks	58	..	..	7	0.3	1.1	6	2.4	..	..	..
Total household intake	1990	81	31	872	10	71	2432	247	75	2252	859
Percentage of total intake per person per day from household purchases											
	%	%	%	%	%	%	%	%	%	%	%
Milk and cream ^(a)	8	9	15	38	2	4	5	7	5	2	11
Cheese	3	6	10	11	..	-	4	2	-	1	6
Carcase meat	3	4	5	..	3	-	1	1	-	..	..
Non-carcase meat and meat products	11	16	16	3	11	..	22	5	3	3	19
Fish	1	2	1	1	2	..	3	1	..	..	..
Eggs	1	1	1	1	2	-	1	2	-	-	2
Fats and oils	9	23	19	..	..	..	3	4	..	4	17
Sugar and preserves	3	..	..	..	1	23	..	..	..	..	..
Fresh potatoes	2	..	..	..	2	-	..	3	10	-	-
Fresh green vegetables	..	..	..	1	1	-	..	5	8	4	2
Other fresh vegetables	1	..	..	2	3	-	..	7	9	64	28
Processed vegetables	6	6	3	3	9	1	7	9	8	12	6
Fresh fruit	2	..	..	1	2	-	2	5	21	1	1
Processed fruit	2	3	1	1	2	7	1	5	19	1	..

Table 2.4 continues over the page

Table 2.4 continued

	Energy	Saturated Fat fatty acids	Calcium	Iron	Non-milk extrinsic sugars	Sodium	Folate	Vitamin C	β -carotene	Vitamin A (Retinol equiv.)	
Bread	10	3	2	14	16	..	17	11	..	..	1
Flour	2	..	..	1	2	-	..	1	-	-	-
Cakes, buns and pastries	4	4	4	2	3	7	3	1	..	..	2
Biscuits	5	6	8	3	4	8	3	1	..	..	..
Other cereal products ^(b)	12	6	5	8	23	6	9	17	1	2	3
Beverages	..	..	..	1	2	1	..	3	..	..	..
Other food ^(c)	4	5	4	3	4	9	16	6	1	5	2
Soft drinks	2	-	-	1	..	17	1	1	14	2	1
Confectionery	4	4	6	2	2	15	1	1	..	..	1
Alcoholic drinks	3	..	..	1	3	2	..	1	..	..	..

(a) Includes all whole and skimmed liquid and instant milks, yoghurt and fromage frais, milk desserts and cream.

(b) Includes oatmeal and oat products, breakfast cereals, canned milk puddings, other puddings such as sponge puddings and pies, rice, cereal-based invalid foods, slimming foods, infant foods, frozen cakes and pastries, pasta, pizza, cereal convenience foods such as cake, pudding and dessert mixes, custard powder, other cereals such as barley, cous cous, corn and tapioca.

(c) Includes mineral or spring waters, baby foods, soups, other takeaway food brought home, meals on wheels, salad dressings and other spreads & dressings, pickles, sauces, takeaway sauces and mayonnaise, stock cubes and meat & yeast extracts, jelly squares or crystals, ice cream (all types), salt, artificial sweeteners, vinegar, spices and dried herbs, bisto, gravy granules, stuffing mix, baking powder, yeast, fruit, herbal and instant teas, and soya and novel protein foods.

*Note: - equals nil

.. equals negligible

2.6 Comparison of household and eating out intakes with Reference Nutrient Intakes

Based on the food and drink purchases, average micronutrient intakes except potassium were all at or above the weighted reference nutrient intakes (RNI) in 2012. Potassium intakes were 99% of RNI. In the case of sodium, the reference nutrient intake is set as a maximum level, which was exceeded in 2012 by 82 per cent excluding sodium from table salt. Vitamin B12 shows the highest intake, over four times the RNI.

Average energy intake (including energy from alcohol) was 105 per cent of the weighted Estimated Average Requirement (EAR), as set by COMA. Average energy intake excluding energy from alcohol was also above the weighted EAR at 102 per cent.

Table 2.5 Energy and nutrient intakes in the UK in 2012 as a percentage of weighted Reference Nutrient Intakes

		Nutrient intakes in 2012			Intake as a percentage of weighted Reference Nutrient Intake ^(a)		
		Household	Eaten out	Total	Household	Eaten out	Total
							<i>per person per day</i>
Energy ^(b)	kcal	1990	219	2209	95	10	105
Energy excluding alcohol ^(b)	kcal	1939	204	2143	93	10	102
Protein	g	67.8	8.1	75.9	148	18	166
Calcium	mg	872	65	937	127	9	136
Iron	mg	10.3	1.1	11.4	100	11	111
Zinc	mg	8.0	0.9	9.0	101	12	112
Magnesium	mg	259	25	284	98	10	107
Sodium ^(c)	g	2.43	0.29	2.72	163	19	182
Potassium	g	2.84	0.32	3.16	89	10	99
Thiamin	mg	1.60	0.18	1.78	190	21	211
Riboflavin	mg	1.76	0.13	1.89	154	11	165
Niacin equivalent	mg	29.0	4.0	33.0	208	28	237
Vitamin B ₆	mg	1.8	0.3	2.1	150	24	175
Vitamin B ₁₂	µg	5.6	0.5	6.1	402	37	440
Folate	µg	247	35	282	131	19	150
Vitamin C	mg	75	8	82	194	20	214
Vitamin A (retinol equivalent)	µg	859	90	950	138	15	153

(a) Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. RNI values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group. Weighted RNIs, based on the age/sex composition of the survey sample, have been calculated for comparison with population average intakes.

(b) Estimated Average Requirement

(c) (i) Excludes sodium from table salt (ii) In May 2003 the Scientific Advisory Committee Nutrition recommended that average salt intake for adults should not exceed 6 g/day, equivalent to 2.4 grams of sodium.

2.7 Nutrient intakes from eating out

Eating out accounted for 9.9 per cent of total energy intake in 2012. Excluding energy intake from free meals and unspecified meals, over half of energy from eating out is derived from a combination of meat and meat products, alcoholic drinks, sandwiches, potatoes (including chips) and Indian, Chinese and Thai dishes. See Table 2.6.

The estimation methods for unspecified meals are described in the methodology paper '[Free food and unspecified meals estimation](#)'.

Table 2.6 Intakes from different types of food eaten out

	Energy		Saturated	Calcium	Iron	Non-milk extrinsic sugars	Sodium	Folate	Vitamin C	β carotene	Vitamin A (Retinol equiv.)
	kcal	grams	Fatfatty acids grams	mg	mg	grams	mg	µg	mg	µg	µg
Indian, Chinese and Thai meals or dishes	13	0.6	0.1	4	0.1	0.1	25	1.1	0.1	6	1
Meat and meat products	24	1.4	0.5	7	0.1	..	53	1.9	0.2	23	11
Fish and fish products	4	0.2	..	1	..	..	5	0.4	..	..	..
Cheese and egg dishes and pizza	7	0.4	0.1	4	..	..	11	2.2	0.1	5	5
Potatoes	16	0.7	0.1	1	0.1	-	3	4.2	1.3	..	..
Vegetables	3	0.1	..	2	..	..	8	1.4	0.3	39	7
Salads	2	0.1	..	1	..	..	3	0.8	0.4	19	4
Rice, pasta and noodles	3	..	..	..	..	-	1	0.1	..	..	..
Soups	1	..	..	..	..	..	6	0.3	-	..	..
Breakfast cereals	..	..	..	..	..	..	1	0.1	..	..	..
Fruit	1	..	..	..	..	..	..	0.1	0.2	1	..
Yoghurt	..	..	..	..	..	..	..	0.0	-	-	..
Bread	3	0.1	..	1	..	-	5	0.3	-	..	1
Sandwiches	18	0.9	0.3	10	0.1	..	40	2.1	0.2	12	6
Beverages	2	0.1	..	2	..	0.1	1	0.3	..	..	..
Soft drinks including milk	11	0.1	..	5	..	2.5	2	0.6	0.9	1	1
Alcoholic drinks	21	..	..	4	..	1.4	4	4.3	0.2	..	..
Confectionery	5	0.2	0.1	1	..	0.7	1	0.1	-	..	..
Ice cream, desserts and cakes	11	0.6	0.3	3	..	0.6	9	0.3	0.1	3	4
Biscuits	2	0.1	..	..	..	0.1	1	0.0	-	..	..
Crisps, nuts and snacks	5	0.3	0.1	..	..	0.1	7	0.3	..	..	..
All food & drink eaten out ^(a)	150	5.9	1.9	47	0.7	5.9	184	21	4.1	111	41
As a percentage of total intake per person per day from food and drink purchased for consumption outside the home											
	%	%	%	%	%	%	%	%	%	%	%
Indian, Chinese and Thai meals or dishes	9	11	6	8	19	3	14	5	2	6	3
Meat and meat products	16	24	28	14	19	..	29	9	4	20	27
Fish and fish products	3	4	2	3	2	..	3	2	..	..	1
Cheese and egg dishes and pizza	5	7	8	9	6	..	6	11	3	4	11
Potatoes	10	11	5	2	7	-	1	20	33	..	1
Vegetables	2	2	1	4	6	1	4	7	7	36	17
Salads	1	2	2	2	3	..	2	4	10	17	9
Rice, pasta and noodles	2	1	..	1	2	-	1	1	..	..	..
Soups	..	..	..	..	1	..	3	1	-	..	..
Breakfast cereals	..	..	..	..	..	..	..	..	..	..	..
Fruit	..	..	..	..	..	..	..	..	4	..	..
Yoghurt	..	..	..	1	..	..	..	..	-	-	..
Bread	2	2	2	3	2	-	3	1	-	..	2
Sandwiches	12	15	14	22	15	..	22	10	5	11	15
Beverages	1	1	2	4	2	2	1	2	1	..	1
Soft drinks including milk	7	1	2	11	1	43	1	3	23	1	2
Alcoholic drinks	14	..	..	7	7	24	2	21	5	..	..
Confectionery	3	3	6	3	1	12	1	..	-	..	..
Ice cream, desserts and cakes	7	10	13	6	4	11	5	2	1	3	10
Biscuits	1	1	2	1	1	2	..	..	-	..	..
Crisps, nuts and snacks	3	5	6	1	2	1	4	1	1	..	..

(a) The category 'Other food products' has been removed from this table as it includes a significant proportion of unspecified meals which is an imputed category

"Note: - equals nil
.. equals negligible"

Chapter 3 Geographic Comparisons

3.1 Overview

The analysis uses regions as defined in the Nomenclature of Territorial Units for Statistics (NUTS) which is an internationally agreed standard developed by the European Union. The level 1 regions of the UK are nine regions of England, plus Wales, Scotland and Northern Ireland, making 12 NUTS 1 regions in all. For more information on NUTS codes see the [ONS website](#).

Differences between regions can be due to systematic regional variation in demographic characteristics, but this Chapter does not address this. Chapter 4 analyses differences in purchases of fruit and vegetables and in estimated intakes of sodium, non-milk extrinsic sugars, fibre and saturated fatty acids according to regional and demographic characteristics of households.

There is variation in the sample size between each of the four countries of the United Kingdom and between one year and the next; notably in 2010 Northern Ireland had a significantly reduced sample size of 147 participating households. To ensure a large enough sample for robust estimates in each country, this chapter concentrates on three year averages between 2010 and 2012.

Rural areas tended to purchase larger quantities of food and drink than urban areas, therefore the energy and nutrient intakes derived from these purchases was greater in rural areas.

3.2 UK country comparisons

Food and drink for the household

Averaged over the three years to 2012 the ratio between the highest and lowest amounts purchased for household supplies between the four UK countries varied from 1.0 (eggs) to 1.6 (potatoes).

Where the ratio between highest and lowest levels of purchasing was 1.3 or more:

- Northern Irish households purchased the least 'sugar and preserves' and vegetables. They purchased the most potatoes and confectionery.
- Households in Wales purchased the most 'sugar and preserves', vegetables and beverages.
- Scottish households purchased the least beverages and potatoes. They purchased the most soft drinks.
- English households purchased the least soft drinks and confectionery.

Eating out food and drink

The ratio between highest and lowest purchases of food and drink eaten out varied more widely across the four UK countries than household purchases, from 1.2 (beverages) to 1.9 (fish and fish products).

Households in Northern Ireland had the highest purchases of food eaten out in 7 out of the 12 food categories, including 'Indian, Chinese and Thai meals', 'meat and meat products', alcoholic drinks, and confectionery. They purchased the least fish and fish products, almost half the quantity purchased in England.

Scottish households had the lowest purchases of vegetables, alcoholic drinks, potatoes, meat and meat products and 'Indian, Chinese and Thai meals'. They had the highest purchases of sandwiches, one and a half times higher than in Wales.

Welsh households purchased the most vegetables and potatoes, and the least sandwiches, 'cheese and egg dishes and pizza', 'ice creams desserts and cakes', confectionery and beverages.

Table 3.1: Purchases of selected foods by UK country - 3 year average

	England	Wales	Scotland	Northern Ireland	Lowest	Highest	Ratio lowest highest
Number of households in sample	13843	778	1451	479			
Average age of HRP	53	54	53	52			
Average number of adults per household	2	2	2	2			
Average number of children per household	0.5	0.5	0.4	0.5			
Average gross weekly household income (£)	721	603	672	584			
Household purchases	<i>grams per person per week unless otherwise stated</i>						
Milk and cream (ml)	1890	2054	1886	2004	Scotland	Wales	1.1
Cheese	119	110	111	96	N. Ireland	England	1.2
Carcase meat	204	206	188	234	Scotland	N. Ireland	1.2
Non-carcase meat and meat products	779	926	853	943	England	N. Ireland	1.2
Fish	149	148	137	128	N. Ireland	England	1.2
Eggs (no.)	1.7	1.7	1.7	1.7	Scotland	Wales	1.0
Fats and oils	177	190	171	164	N. Ireland	Wales	1.2
Sugar and preserves	125	151	122	104	N. Ireland	Wales	1.4
Potatoes	724	801	711	1107	Scotland	N. Ireland	1.6
Vegetables excluding potatoes	1114	1149	932	899	N. Ireland	Wales	1.3
Fruit	1142	1032	1084	1062	Wales	England	1.1
Total cereals	1544	1532	1594	1702	Wales	N. Ireland	1.1
Beverages	54	59	46	54	Scotland	Wales	1.3
Soft drinks ^(a) (ml)	1616	1705	2027	1813	England	Scotland	1.3
Alcoholic drinks (ml)	728	766	750	685	N. Ireland	Wales	1.1
Confectionery	127	139	148	161	England	N. Ireland	1.3
Eating out purchases	<i>grams per person per week unless otherwise stated</i>						
Indian, Chinese and Thai meals	30	26	24	31	Scotland	N. Ireland	1.3
Meat and meat products	76	78	67	86	Scotland	N. Ireland	1.3
Fish and fish products	14	13	13	7	N. Ireland	England	1.9
Cheese and egg dishes and pizza	22	16	20	18	Wales	England	1.4
Potatoes	62	72	54	69	Scotland	Wales	1.3
Vegetables excluding potatoes	28	29	16	23	Scotland	Wales	1.8
Sandwiches	64	52	79	63	Wales	Scotland	1.5
Ice creams, desserts and cakes	25	21	26	27	Wales	N. Ireland	1.3
Beverages (ml)	119	99	108	121	Wales	N. Ireland	1.2
Soft drinks including milk (ml)	260	263	325	335	England	N. Ireland	1.3
Alcoholic drinks (ml)	393	364	325	447	Scotland	N. Ireland	1.4
Confectionery	9	9	10	12	Wales	N. Ireland	1.3

(a) Converted to unconcentrated equivalent by applying a factor of 5 to concentrated and low calorie concentrated soft drinks.

Nutrient intakes

Whilst there are variations in the average amount of different foods purchased in the four UK countries, there is little variation in the estimated nutrient intakes derived from these purchases (See Table 3.2).

The largest variations in nutrient intakes are in retinol, retinol equivalent and alcohol. Intake of retinol and retinol equivalent in Welsh households was 23 per cent and 15 per cent higher respectively than in Northern Ireland. Intake of retinol and retinol equivalent was above the weighted RNI in all four countries of the UK so this variation is not of nutritional concern. Starch intake was highest in Northern Ireland, 13 per cent higher than in Wales.

Welsh and Scottish households had the highest percentage of energy derived from non-milk extrinsic sugars at 14.2 per cent while Northern Ireland had the lowest at 13.4 per cent.

Households in Northern Ireland had the highest total intake of fats but when taken as a percentage of total energy intake, there was little variation across all four countries.

Alcohol

The Family Food Survey estimate is likely to be an underestimate due to under-reporting of alcoholic drinks, but the trends are likely to be valid.

Welsh households had the highest volume of purchases of alcoholic drinks for the household, at 766 mls per person per week.

Households in Northern Ireland purchased the lowest volume of alcoholic drinks for the household but purchased the highest volume for consumption away from the home (see Table 3.1).

Scottish households purchased the lowest volume of alcoholic drinks for consumption away from the home, nearly one and a half times lower than in Northern Ireland and the lowest combined total.

In terms of alcohol content (in grams) Scottish households had the highest total intake of alcohol, 20 per cent higher than Wales (see Table 3.2), indicating they purchased drinks containing higher alcohol content.

Table 3.2: Energy and nutrient intakes by UK country - 3 year average

		England	Wales	Scotland	Northern Ireland	Lowest	Highest	Ratio lowest highest
Number of households in sample		13843	778	1451	479			
Average age of HRP		53	54	53	52			
Average number of adults per household		1.9	1.9	1.8	1.9			
Average number of children per household		0.5	0.5	0.4	0.5			
Average gross weekly household income (£)		721	603	672	584			
Total energy & nutrient intakes^(a)		<i>intake per person per day</i>						
Energy	kcal	2241	2265	2273	2392	England	NI	1.07
	MJ	9.4	9.5	9.5	10.0	England	NI	1.07
Energy intake excluding alcohol	kcal	2172	2203	2198	2322	England	NI	1.07
Total Protein	g	76.9	79.1	77.3	84.1	England	NI	1.09
Fat	g	93	94	93	97	England	NI	1.05
Fatty acids:								
Saturates	g	34.2	35.1	35.4	36.4	England	NI	1.06
Monounsaturates	g	36.0	36.4	36.1	37.5	England	NI	1.04
Polyunsaturates	g	16.6	16.7	16.0	16.7	Scot	NI	1.04
Cholesterol	mg	252	260	254	270	England	NI	1.07
Carbohydrate ^(b)	g	275	277	279	296	England	NI	1.08
Total sugars	g	122	127	125	127	England	NI	1.04
Non-milk extrinsic sugars	g	79	83	83	83	England	Wales	1.05
Starch	g	152	149	153	169	Wales	NI	1.13
Fibre ^(c)	g	15.0	14.8	14.4	15.7	Scot	NI	1.09
Alcohol	g	9.8	8.9	10.7	10.1	Wales	Scot	1.20
Calcium	mg	948	978	963	1000	England	NI	1.05
Iron	mg	11.7	11.7	11.7	12.3	Scot	NI	1.06
Zinc	mg	9.1	9.3	9.2	9.9	England	NI	1.08
Magnesium	mg	286	290	283	302	Scot	NI	1.07
Sodium ^(d)	g	2.73	2.84	2.93	3.02	England	NI	1.10
Potassium	g	3.19	3.26	3.13	3.46	Scot	NI	1.11
Thiamin	mg	1.69	1.70	1.67	1.84	Scot	NI	1.10
Riboflavin	mg	1.90	1.96	1.87	2.01	Scot	NI	1.07
Niacin equivalent	mg	33.5	34.4	33.5	36.9	England	NI	1.10
Vitamin B ₆	mg	2.3	2.4	2.3	2.6	Scot	NI	1.13
Vitamin B ₁₂	µg	6.2	6.6	6.2	6.4	Scot	Wales	1.07
Folate	µg	295	293	283	308	Scot	NI	1.09
Vitamin C	mg	80	78	78	80	Wales	NI	1.03
Vitamin A:								
Retinol	µg	533	582	515	471	NI	Wales	1.23
β-carotene	µg	2357	2436	2233	2282	Scot	Wales	1.09
Retinol equivalent	µg	928	989	889	859	NI	Wales	1.15
Vitamin D	µg	3.09	3.33	3.00	3.21	Scot	Wales	1.11
Vitamin E	mg	12.31	12.23	12.00	12.42	Scot	NI	1.04

Table 3.2 continues over the page

Table 3.2 continued

		England	Wales	Scotland	Northern Ireland	Lowest	Highest	Ratio lowest highest
Percentage contributions of macronutrients to energy intake excluding alcohol								
Fat	%	38.4	38.5	38.2	37.6	NI	Wales	1.02
Fatty acids:								
Saturates	%	14.2	14.3	14.5	14.1	NI	Scot	1.03
Monounsaturates	%	14.9	14.9	14.8	14.6	NI	England	1.03
Polyunsaturates	%	6.9	6.8	6.6	6.5	NI	England	1.06
Carbohydrate	%	47.4	47.1	47.6	47.9	Wales	NI	1.02
Non-milk extrinsic sugars	%	13.7	14.2	14.2	13.4	NI	Scot	1.06
Protein	%	14.2	14.4	14.1	14.5	Scot	NI	1.03
As a percentage of weighted reference nutrient intake ^(f)								
Energy ^(e)	%	106	113	106	110	Scot	Wales	1.07
Energy excluding alcohol ^(e)	%	103	109	102	106	Scot	Wales	1.07
Protein	%	167	179	167	181	England	NI	1.08
Calcium	%	138	147	138	145	England	Wales	1.07
Iron	%	114	119	112	120	Scot	NI	1.07
Zinc	%	114	123	114	123	England	NI	1.08
Magnesium	%	107	113	105	112	Scot	Wales	1.08
Sodium ^(d)	%	181	196	191	197	England	NI	1.09
Potassium	%	99	105	95	105	Scot	Wales	1.10
Thiamin	%	192	201	188	205	Scot	NI	1.09
Riboflavin	%	166	179	162	175	Scot	Wales	1.10
Niacin equivalent	%	239	259	239	261	Scot	NI	1.09
Vitamin B ₆	%	192	208	189	212	Scot	NI	1.12
Vitamin B ₁₂	%	445	502	440	464	Scot	Wales	1.14
Folate	%	157	163	149	163	Scot	Wales	1.09
Vitamin C	%	201	200	191	187	NI	England	1.08
Vitamin A (retinol equivalent)	%	144	173	135	131	NI	Wales	1.32

(a) Contributions from pharmaceutical sources are not recorded by the survey.

(b) Available carbohydrate, calculated as monosaccharide equivalent.

(c) As non-starch polysaccharides.

(d) (i) Excludes sodium from table salt (ii) In May 2003 the Scientific Advisory Committee on Nutrition recommended that average salt intake for adults should not exceed 6 grams per day, equivalent to 2.4 grams of sodium.

(e) As a percentage of Estimated Average Requirement.

(f) Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. RNI values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group. Weighted RNIs, based on the age/sex composition of the survey sample, have been calculated for comparison with population average intakes.

Spending

Spending on all food and drink (including alcoholic drinks) was highest in Northern Ireland at £45.96 per person per week, compared to Wales where spending was the lowest at £37.42. The same pattern was evident with expenditure on eating out; Northern Ireland was the highest at £15.17, one and a half times higher than Wales at £10.14.

Household expenditure on alcoholic drinks was highest in Scotland at £3.66 per week compared to £2.62 in Wales. Expenditure on household food and drink (excluding alcoholic drinks) followed the same pattern as eating out, with Northern Ireland spending the most and Wales spending the least.

No account has been taken of possible variations in the cost of living between countries.

Table 3.3: Spending by UK countries - 3 year average

	England	Wales	Scotland	Northern Ireland	Lowest	Highest	Ratio lowest highest
Number of households in sample	13843	778	1451	479			
Average age of HRP	53	54	53	52			
Average number of adults per household	1.9	1.9	1.8	1.9			
Average number of children per household	0.5	0.5	0.4	0.5			
Average gross weekly household income (£)	721	603	672	584			
Household expenditure					<i>pounds per person per week</i>		
Household food & drink excluding alcohol	24.97	24.66	26.23	27.58	Wales	N. Ireland	1.1
Household alcoholic drinks	3.13	2.62	3.66	3.22	Wales	Scotland	1.4
All food & drink	28.10	27.28	29.89	30.79	Wales	N. Ireland	1.1
Eating out expenditure							
Eating out food & drink excluding alcohol	8.77	7.63	8.59	10.75	Wales	N. Ireland	1.4
Eating out alcoholic drinks	3.14	2.51	2.96	4.42	Wales	N. Ireland	1.8
All food & drink	11.91	10.14	11.55	15.17	Wales	N. Ireland	1.5
Total expenditure							
All food & drink excluding alcohol	33.74	32.29	34.82	38.33	Wales	N. Ireland	1.2
Alcoholic drinks	6.27	5.12	6.62	7.64	Wales	N. Ireland	1.5
All food & drink	40.01	37.42	41.44	45.96	Wales	N. Ireland	1.2

Chart 3.1: Spending on food and alcohol by UK countries - 3 year average



3.3 England regional comparisons

England is divided into nine regions. Detailed population statistics can be found at the [ONS website](#).

Food and drink for the household

The ratio between highest and lowest levels of purchasing for household supplies across the English regions varied from 1.1 (carcase meat, cereals) to 1.8 (alcoholic drinks).

- London had the lowest purchases of drinks and beverages (alcoholic and non-alcoholic), confectionery, milk and cream, potatoes and non-carcase meat products.
- North East had the highest purchases of confectionery and the lowest of fruit, cheese, 'fats and oils' and 'sugar and preserves'.
- South West had the highest purchases of cheese, milk and cream, vegetables and beverages.
- West Midlands had the highest purchases of potatoes, one and a half times more than in London and the lowest purchases of fish and eggs.
- Yorkshire and the Humber had the highest purchases of alcohol at 874 mls per person per week, 400 mls per person higher than the lowest level in London. They had the lowest purchases of carcase meat.
- North West had the lowest purchases of vegetables.

Eating out food and drink

The biggest differential in eating out purchases in English regions is the 'Indian, Chinese and Thai meals' category; North East had the lowest purchases at 23 grams per person per week whilst London had nearly twice as much at 41 grams. The South East purchased the least alcoholic drinks at 325ml – the North East purchased almost half as much again. Vegetable purchases were highest in the South West and lowest in the North West.

Table 3.4: Purchases of selected foods by region - 3 year average, highest and lowest

	Lowest region	Lowest value	Highest region	Highest value	Ratio of lowest to highest
Household purchases					
<i>grams per person per week unless otherwise stated</i>					
Milk and cream	London	1622 (ml)	South West	2036 (ml)	1.3
Cheese	North East	99	South West	138	1.4
Carcase meat	Yorkshire & the Humber	192	East	221	1.1
Non-carcase meat and meat products	London	698	North East	821	1.2
Fish	West Midlands	134	East	165	1.2
Eggs	West Midlands	2 (no.)	East Midlands	2 (no.)	1.2
Fats and oils	North East	164	East Midlands	195	1.2
Sugar and preserves	North East	110	East Midlands	149	1.3
Potatoes	London	556	West Midlands	828	1.5
Vegetables excluding potatoes	North West	980	South West	1201	1.2
Fruit	North East	937	East	1265	1.4
Total cereals	South East	1487	West Midlands	1624	1.1
Beverages	London	44	South West	63	1.4
Soft drinks ^(a)	London	1273 (ml)	East	1783 (ml)	1.4
Alcoholic drinks	London	474 (ml)	Yorkshire & the Humber	874 (ml)	1.8
Confectionery	London	96	North East	151	1.6
Eating out purchases					
<i>grams per person per week unless otherwise stated</i>					
Indian, Chinese and Thai meals	North East	23	London	41	1.8
Meat and meat products	South East	72	South West	80	1.1
Fish and fish products	West Midlands	11	London	17	1.5
Cheese and egg dishes and pizza	North West	19	London	26	1.4
Potatoes	London	58	Yorkshire & the Humber	69	1.2
Vegetables excluding potatoes	North West	23	South West	34	1.5
Sandwiches	West Midlands	56	London	76	1.4
Ice creams, desserts and cakes	West Midlands	21	South West	29	1.4
Beverages	North West	102 (ml)	South East	132 (ml)	1.3
Soft drinks including milk	East	241 (ml)	London	297 (ml)	1.2
Alcoholic drinks	South East	325 (ml)	North East	486 (ml)	1.5
Confectionery	West Midlands	8	South West	10	1.3
Household expenditure					
<i>pence per person per week</i>					
Total all food & drink excluding alcohol	North East	2313	East	2691	1.2
Total alcoholic drinks	London	253	South West	342	1.4
Total all food & drink	North East	2620	East	3013	1.1
Eating out expenditure					
<i>pence per person per week</i>					
Total all food & drink excluding alcohol	North East	730	London	1100	1.5
Total alcoholic drinks	East Midlands	257	London	385	1.5
Total all food & drink	East Midlands	1035	London	1484	1.4

(a) Converted to unconcentrated equivalent by applying a factor of 5 to concentrated and low calorie concentrated soft drinks.

Table 3.5: Purchases of selected foods by region - 3 year average

	England	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West
Number of households in sample	13843	803	1866	1527	1293	1510	1622	1504	2223	1495
Average age of HRP	53	53	52	52	53	53	54	51	54	55
Average number of adults per household	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9
Average number of children per household	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.6	0.5	0.5
Average gross weekly household income (£)	721	568	654	610	672	641	754	907	840	718
Household purchases	<i>grams per person per week unless otherwise stated</i>									
Milk and cream (ml)	1890	1880	1989	1922	2011	1862	1919	1622	1885	2036
Cheese	119	99	109	111	126	110	133	103	131	138
Carcase meat	204	204	202	192	196	203	221	211	198	209
Non-carcase meat and meat products	779	821	821	778	792	792	803	698	764	800
Fish	149	153	140	148	137	134	165	164	150	144
Eggs (no.)	2	2	2	2	2	2	2	2	2	2
Fats and oils	177	164	181	165	195	180	177	179	166	189
Sugar and preserves	125	110	115	123	149	128	122	111	127	145
Potatoes	724	766	764	725	780	828	721	556	691	798
Vegetables excluding potatoes	1114	1030	980	999	1176	1073	1170	1163	1178	1201
Fruit	1142	937	1041	986	1119	1009	1265	1241	1256	1228
Total cereals	1544	1505	1518	1509	1622	1624	1582	1489	1487	1612
Beverages	54	50	55	52	57	55	56	44	60	63
Soft drinks ^(a) (ml)	1616	1707	1633	1582	1758	1776	1783	1273	1635	1598
Alcoholic drinks (ml)	728	869	768	874	829	715	721	474	745	743
Confectionery	127	151	131	131	133	131	139	96	126	132
Eating out purchases	<i>grams per person per week unless otherwise stated</i>									
Indian, Chinese and Thai meals	30	23	25	25	32	32	25	41	34	27
Meat and meat products	76	75	77	78	73	75	73	79	72	80
Fish and fish products	14	14	12	15	12	11	13	17	14	15
Cheese and egg dishes and pizza	22	23	19	22	22	20	22	26	24	20
Potatoes	62	66	60	69	64	65	60	58	58	67
Vegetables excluding potatoes	28	26	23	27	31	28	27	27	27	34
Sandwiches	64	70	60	67	60	56	63	76	66	57
Ice creams, desserts and cakes	25	21	22	24	24	21	27	25	27	29
Beverages (ml)	119	112	102	120	119	108	123	123	132	128
Soft drinks including milk (ml)	260	285	260	268	251	246	241	297	249	242
Alcoholic drinks (ml)	393	486	432	448	356	443	354	364	325	412
Confectionery	9	9	9	9	8	8	8	9	9	10
Household expenditure	<i>pence per person per week</i>									
Total all food & drink excluding alcohol	2497	2313	2382	2318	2460	2365	2691	2494	2660	2615
Total alcoholic drinks	313	307	328	323	326	285	322	253	338	342
Total all food & drink	2810	2620	2709	2641	2786	2650	3013	2747	2998	2958
Eating out expenditure	<i>pence per person per week</i>									
Total all food & drink excluding alcohol	877	730	756	773	778	740	924	1100	969	905
Total alcoholic drinks	314	319	313	311	257	307	300	385	296	312
Total all food & drink	1191	1049	1069	1084	1035	1047	1224	1484	1266	1217

(a) Converted to unconcentrated equivalent by applying a factor of 5 to concentrated and low calorie concentrated soft drinks.

Nutrient intakes

Given that the South West features highest in a number of food groups for purchases of household supplies and that London features as the lowest, it follows that they often feature in the same position for energy and nutrient intakes.

- South West had the highest intakes of energy and macronutrients except alcohol.
- North West had the highest percentage of energy from total fat at 38.8 per cent and West Midlands the lowest at 37.5 per cent.
- London had the lowest percentage of energy from saturates at 13.3 per cent but the highest from monounsaturates and polyunsaturates.

There was little difference between regions in macronutrient intakes when expressed as a percentage of food energy. Micronutrient intakes were close to or above the population weighted RNIs in all regions. Any differences generally reflected regional differences in energy intakes.

Table 3.6: Energy and nutrient intakes by region - 3 year average

England and regions	England	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East London	South East	South West		
Number of households in sample	13843	803	1866	1527	1293	1510	1622	1504	2223	1495	
Average age of HRP	53	53	52	52	53	53	54	51	54	55	
Average number of adults per household	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	
Average number of children per household	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.6	0.5	0.5	
Average gross weekly household income (£)	721	568	654	610	672	641	754	907	840	718	
Total energy & nutrient intakes^(a)							<i>intake per person per day</i>				
Energy	kcal	2241	2180	2203	2188	2322	2249	2314	2167	2224	2352
	MJ	9.4	9.1	9.2	9.2	9.7	9.4	9.7	9.1	9.3	9.8
Energy excluding alcohol	kcal	2172	2103	2129	2114	2252	2181	2246	2114	2154	2279
Total Protein	g	76.9	75.5	76.2	75.5	78.2	76.2	79.5	75.3	76.5	79.7
Fat	g	93	90	92	90	95	91	96	91	92	97
Fatty acids:											
Saturates	g	34.2	33.6	34.1	33.6	35.5	33.4	35.8	31.3	34.6	36.8
Monounsaturates	g	36.0	34.8	35.4	34.7	36.6	35.3	37.5	36.0	35.9	37.6
Polyunsaturates	g	16.6	15.7	16.4	15.8	17.1	16.5	16.9	17.6	16.0	16.9
Cholesterol	mg	252	244	251	247	255	243	261	248	252	262
Carbohydrate ^(b)	g	275	265	266	267	288	282	283	266	271	289
Total sugars	g	122	118	119	119	128	122	129	110	125	132
Non-milk extrinsic sugars	g	79	78	77	78	84	81	84	70	81	86
Starch	g	152	146	146	147	159	159	153	155	146	156
Fibre ^(c)	g	15.0	14.1	14.2	14.3	15.5	15.0	15.4	15.0	15.1	15.9
Alcohol	g	9.8	10.9	10.6	10.6	10.0	9.7	9.7	7.6	9.9	10.3
Calcium	mg	948	926	953	949	993	952	981	855	951	1012
Iron	mg	11.7	11.1	11.4	11.3	12.1	11.7	12.1	11.2	11.8	12.4
Zinc	mg	9.1	8.9	9.1	8.9	9.3	9.1	9.4	8.9	9.1	9.5
Magnesium	mg	286	279	280	278	293	284	297	276	290	301
Sodium ^(d)	g	2.73	2.74	2.75	2.70	2.79	2.74	2.87	2.45	2.78	2.90
Potassium	g	3.19	3.09	3.14	3.10	3.27	3.18	3.30	3.04	3.23	3.37
Thiamin	mg	1.69	1.61	1.66	1.63	1.71	1.69	1.74	1.64	1.70	1.80
Riboflavin	mg	1.90	1.83	1.92	1.88	1.96	1.87	1.98	1.73	1.92	2.03
Niacin equivalent	mg	33.5	33.0	33.1	32.8	33.9	33.2	35.0	32.6	33.5	34.7
Vitamin B ₆	mg	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.2	2.3	2.5
Vitamin B ₁₂	µg	6.2	6.1	6.3	6.1	6.3	6.1	6.6	5.9	6.1	6.4
Folate	µg	295	277	284	283	300	292	307	285	303	317
Vitamin C	mg	80	71	76	73	80	76	86	83	85	84

Table 3.6 continues over the page

Table 3.6 continued

England & regions	England	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of London	London	South East	South West	
<i>intake per person per day</i>											
Vitamin A:											
Retinol	µg	533	481	516	505	532	563	585	492	550	560
β-carotene	µg	2357	2251	2231	2239	2400	2246	2457	2340	2434	2563
Retinol equivalent	µg	928	857	890	880	934	940	996	883	958	989
Vitamin D	µg	3.09	2.89	3.06	3.00	3.22	3.04	3.29	2.87	3.13	3.28
Vitamin E	mg	12.31	11.75	12.12	11.70	12.72	12.26	12.62	12.79	12.01	12.60
Percentage contributions of macronutrients to energy intake excluding alcohol											
Fat	%	38.4	38.4	38.8	38.2	38.0	37.5	38.5	38.6	38.5	38.4
Fatty acids:											
Saturates	%	14.2	14.4	14.4	14.3	14.2	13.8	14.4	13.3	14.5	14.5
Monounsaturates	%	14.9	14.9	15.0	14.8	14.6	14.6	15.0	15.3	15.0	14.9
Polyunsaturates	%	6.9	6.7	7.0	6.7	6.8	6.8	6.8	7.5	6.7	6.7
Carbohydrate	%	47.4	47.2	46.8	47.4	48.0	48.5	47.2	47.1	47.2	47.5
Non-milk extrinsic sugars	%	13.7	14.0	13.6	13.9	14.0	13.9	14.1	12.4	14.1	14.1
Protein		14.2	14.4	14.3	14.3	13.9	14.0	14.2	14.2	14.2	14.0
As a percentage of weighted reference nutrient intake ^(f)											
Energy ^(e)	%	106	103	105	104	110	107	111	104	106	112
Energy excluding alcohol ^(e)	%	103	99	102	100	107	104	107	101	103	109
Protein	%	167	162	167	164	169	166	176	165	167	174
Calcium	%	138	133	139	138	143	138	143	124	138	148
Iron	%	114	108	112	110	118	114	116	110	116	123
Zinc	%	114	111	114	112	116	114	119	111	114	120
Magnesium	%	107	103	106	104	109	107	113	104	109	114
Sodium ^(d)	%	181	181	185	180	185	183	195	165	186	195
Potassium	%	99	95	99	96	101	99	105	95	101	106
Thiamin	%	192	189	197	193	202	201	208	196	202	215
Riboflavin	%	166	159	168	163	170	164	175	152	168	177
Niacin equivalent	%	239	234	238	235	242	238	252	236	241	250
Vitamin B ₆	%	192	183	189	184	195	191	198	178	190	201
Vitamin B ₁₂	%	445	434	457	440	452	440	481	425	443	463
Folate	%	157	145	152	149	158	155	165	152	161	168
Vitamin C	%	201	182	199	188	207	197	225	216	220	218
Vitamin A (retinol equivalent)	%	144	137	143	141	149	151	161	142	154	159

(a) Contributions from pharmaceutical sources are not recorded by the survey.

(b) Available carbohydrate, calculated as monosaccharide equivalent.

(c) As non-starch polysaccharides.

(d) (i) Excludes sodium from table salt (ii) In May 2003 the Scientific Advisory Committee on Nutrition recommended that average salt intake for adults should not exceed 6 grams per day, equivalent to 2.4 grams of sodium.

(e) As a percentage of Estimated Average Requirement.

(f) Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. RNI values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group. Weighted RNIs, based on the age/sex composition of the survey sample, have been calculated for comparison with population average intakes.

Alcohol

There was substantial variation in the volume of alcoholic drinks purchased and alcohol content of purchases across the regions. The Family Food Survey estimate is likely to be an underestimate due to under-reporting of alcoholic drinks, but the trends are likely to be valid.

- North East had the highest combined volume of purchases of alcoholic drinks at 1355 mls per person per week, 299 mls higher than the UK average in 2012.
- London had the lowest combined intake of alcohol at 7.6 grams per person per day. Across all other regions, the variation was less marked with levels of between 9.7 to 10.9 grams.

Spending

The East had the highest spending on all food and drinks for the household (excluding alcoholic drinks) at £26.91 per person per week. The lowest spend was the North East at £23.13 per person.

The variation across the regions for money spent on eating out was much greater than between purchases made for household consumption. In London, 35 per cent of total spending on food and drink (including alcohol) was on eating out purchases. This compares to 27 per cent in the East Midlands. In England as a whole 30 per cent of all expenditure on food and drink went on eating out purchases.

No account has been taken of possible variations in the cost of living between regions.

Table 3.7: Percentage of food and drink spending on eating out: England regions

	Food & drink excluding alcohol		Alcoholic drinks		All food & drink including alcohol	
	% of total spent eating out	rank (1 highest)	% of total spent eating out	rank (1 highest)	% of total spent eating out	rank (1 highest)
England	26%		50%		30%	
North East	24%	8	51%	3	29%	6
North West	24%	6	49%	5	28%	8
Yorkshire and The Humber	25%	5	49%	4	29%	4
East Midlands	24%	7	44%	9	27%	9
West Midlands	24%	9	52%	2	28%	7
East	26%	4	48%	6	29%	5
London	31%	1	60%	1	35%	1
South East	27%	2	47%	8	30%	2
South West	26%	3	48%	7	29%	3

3.4 Rural Urban comparisons for England, Scotland and Wales

Each household in the survey in Great Britain is categorised as either rural or urban. A rural urban classification exists for Northern Ireland and may be included in the future. The rural urban definition for England and Wales is described in detail on the [ONS website](#). The way rural and urban areas in Scotland are defined is different, reflecting the different geography of the country. Details of the Scottish Rural Urban Classification are available [here](#).

Around one fifth of the household population of England lives in rural areas, two fifths of the Welsh population and a quarter of the Scottish population. Average weekly incomes, based on the three year average of 2010-2012, are included in the tables to aid comparisons and are higher in rural areas than urban areas.

Household purchases

Rural households purchased more food for household supplies than urban households in 15 out of the 16 food categories. Only purchases of 'milk and cream' were highest in an urban area (Wales). See Table 3.8 for a more detailed breakdown.

The greatest variations between highest and lowest volumes purchased were:

- 'Sugar and preserves'; 110 grams per person per week in urban Scotland, compared to 207 grams (90 per cent higher) in rural Wales,
- Beverages (tea, coffee etc); 60 per cent higher in rural Wales than urban Scotland and
- Vegetables (excluding potatoes); 40 per cent higher in rural Wales than urban Scotland. This equates to a difference of 35 grams per person per week.

Within England, whilst all purchase categories were higher in rural households, there was little variation between rural and urban, with no categories showing greater than around 20 per cent difference.

Within Wales, rural households purchased 10 per cent less fish and confectionery than urban households but 80 per cent more 'sugar and preserves'.

Within Scotland, rural households purchased greater quantities of all food categories other than alcoholic drinks, of which they purchased 10 per cent less.

Across GB as a whole, the energy content of food and drink purchases was 6.1 per cent higher in rural than urban households and nutrient intakes were generally higher.

Eating out

The pattern was not as apparent for eating out purchases. There was greater variation in the quantities purchased between countries and between rural and urban areas. Households in rural Wales purchased more than twice the quantity of vegetables compared to rural Scotland. However, within Scotland there was no difference between the quantities purchased in either rural or urban households.

Within England, rural households purchased more fish, potatoes, vegetables, 'ice cream, desserts and cakes', beverages and alcoholic drinks for consumption away from home than households in urban areas.

Within Wales, households in rural areas purchased greater quantities in all categories of eating out except 'Indian, Chinese and Thai' meals and 'cheese and egg dishes and pizza'.

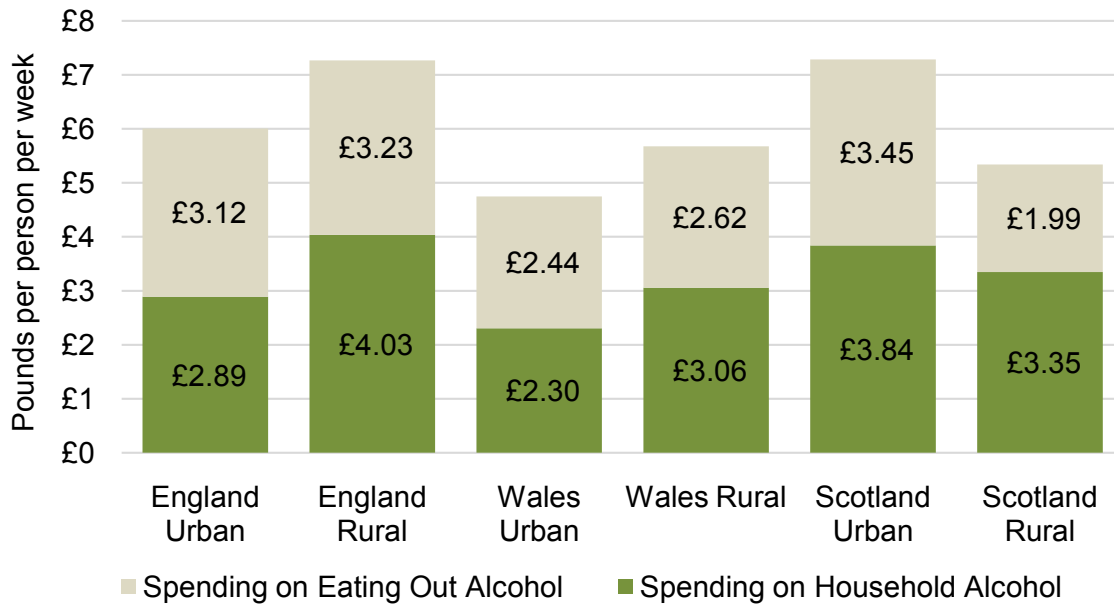
Within Scotland, the pattern was different to the other countries as households in rural areas purchased less of all categories than urban households.

Table 3.8: Purchases of selected foods by rural/urban breakdown - 3 year average

	GB Urban	GB Rural	England Urban	England Rural	Wales Urban	Wales Rural	Scotland Urban	Scotland Rural
Number of households in sample	12169	3903	10702	3141	479	299	988	463
Average age of HRP	52	56	52	56	52	56	52	55
Average number of adults per household	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8
Average number of children per household	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.4
Average gross weekly household income (£)	685	791	692	821	576	649	666	681
Household purchases	<i>grams per person per week unless otherwise stated</i>							
Milk and cream (ml)	1865	2010	1860	2003	2078	1976	1809	2045
Cheese	113	133	114	136	106	116	105	123
Carcase meat	196	227	197	231	202	208	179	209
Non-carcase meat and meat products	783	826	773	802	896	938	835	889
Fish	145	157	146	160	150	139	132	151
Eggs (no.)	2	2	2	2	2	2	2	2
Fats and oils	174	189	175	187	189	192	157	205
Sugar and preserves	119	150	120	145	115	207	110	148
Potatoes	715	767	715	756	777	836	678	772
Vegetables excluding potatoes	1072	1196	1088	1213	1093	1233	880	1048
Fruit	1092	1269	1103	1289	963	1189	1023	1224
Total cereals	1537	1584	1535	1576	1517	1531	1567	1662
Beverages (ml)	52	62	52	62	54	69	44	53
Soft drinks ^(a) (ml)	1633	1734	1603	1667	1603	1848	2015	2037
Alcoholic drinks (ml)	700	837	693	856	734	840	775	711
Confectionery	127	137	125	135	143	131	146	157
Eating out purchases	<i>grams per person per week unless otherwise stated</i>							
Indian, Chinese and Thai meals	31	26	31	27	27	23	27	17
Meat and meat products	76	73	76	75	78	81	74	51
Fish and fish products	13	16	13	16	12	16	13	13
Cheese and egg dishes and pizza	22	20	23	21	18	12	23	15
Potatoes	61	65	61	67	71	79	58	45
Vegetables excluding potatoes	26	29	27	31	27	35	16	16
Sandwiches	66	63	65	62	48	56	84	71
Ice creams, desserts and cakes	24	28	24	28	18	27	26	25
Beverages (ml)	117	118	119	121	87	122	112	103
Soft drinks including milk (ml)	273	240	267	234	261	263	358	257
Alcoholic drinks (ml)	387	378	390	402	355	381	375	229
Confectionery	9	8	9	8	8	9	10	9
Household expenditure	<i>pence per person per week</i>							
Total all food & drink excluding alcohol	2444	2716	2436	2724	2390	2573	2562	2781
Total alcoholic drinks	293	388	289	403	230	306	384	335
Total all food & drink	2737	3104	2725	3127	2620	2878	2946	3116
Eating out expenditure	<i>pence per person per week</i>							
Total all food & drink excluding alcohol	856	916	856	955	722	855	932	717
Total alcoholic drinks	312	302	312	323	244	262	345	199
Total all food & drink	1168	1219	1168	1278	966	1117	1277	916

(a) Converted to unconcentrated equivalent by applying a factor of 5 to concentrated and low calorie concentrated soft drinks.

Chart 3.2: Average spending on alcoholic drinks in rural/urban areas



Spending

Within each country and across GB as a whole, rural households spent more on household food purchases than urban households averaged over the 3 year period 2010-2012. Scottish rural households had the highest level of average spending per person per week on household food and drink (excluding alcoholic drinks) at £27.81. Urban households in Wales spent the least at an average of £23.90 per week over the same period.

Chart 3.2 shows the average amount spent on alcoholic drinks for household supplies and eating out by rural and urban area. Total spending on alcoholic drinks was highest in Scottish urban areas, at £7.29 per person per week; and lowest in Welsh urban areas, at £4.74 per person per week.

Nutrient intakes

Comparing percentage contributions of macronutrients to energy intake excluding alcohol there were small differences across rural and urban areas. The percentage of energy from fat was lowest in Welsh rural households at 37.8 per cent and highest in Welsh urban households at 38.8 per cent. The percentage of energy derived from NME was highest in rural Wales at 15.7 per cent compared to urban Wales at 13.2 per cent.

The greatest variation in intake levels was vitamin A, with rural Welsh households achieving 50 per cent more than urban Welsh households. Across all countries, vitamin intakes were higher in rural households than in urban households. See Table 3.9 for more detailed breakdown.

Table 3.9: Energy and nutrient intakes by rural/urban breakdown - 3 year average

		Urban (GB)	Rural (GB)	England urban	England rural	Wales urban	Wales rural	Scotland urban	Scotland rural
Number of households in sample		12051	3819	10539	3035	468	316	1044	468
Average age of HRP		52	56	52	56	52	57	51	54
Average number of adults per household		1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9
Average number of children per household		0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.5
Average weekly income of HRP		674	767	681	777	560	669	657	778
Total energy and nutrient intake ^(a)		<i>intake per person per day</i>							
Energy	kcal	2251	2366	2244	2363	2333	2374	2292	2366
	MJ	9.4	9.9	9.4	9.9	9.8	9.9	9.6	9.9
Energy intake excluding alcohol	kcal	2193	2294	2178	2277	2264	2301	2210	2298
Total Protein	g	77.1	80.6	76.9	80.5	80.6	80.8	77.7	80.1
Fat	g	93	98	93	98	97	97	93	98
Fatty acids:									
Saturates	g	34.4	37.5	34.2	37.6	36.4	37.1	35.4	37.4
Monounsaturates	g	35.8	37.5	35.8	37.4	37.3	37.2	35.9	37.4
Polyunsaturates	g	16.8	16.8	16.9	16.7	17.6	16.6	16.1	17.0
Cholesterol	mg	252	271	252	270	264	275	253	265
Carbohydrate ^(b)	g	276	287	275	285	283	294	282	291
Total sugars	g	123	135	123	134	128	145	126	134
Non-milk extrinsic sugars	g	81	89	80	88	84	98	84	88
Starch	g	152	151	152	151	155	148	156	157
Fibre ^(c)	g	15.0	15.7	15.0	15.7	15.4	15.5	14.6	15.3
Alcohol	g	9.6	11.8	9.4	12.2	9.8	10.4	11.6	9.8
Calcium	mg	952	1016	948	1014	1004	1023	970	1016
Iron	mg	11.7	12.4	11.7	12.4	12.1	12.3	11.8	12.2
Zinc	mg	9.2	9.6	9.1	9.6	9.6	9.6	9.2	9.5
Magnesium	mg	284	300	283	302	293	301	286	291
Sodium ^(d)	g	2.76	2.91	2.73	2.89	2.93	2.91	2.96	3.00
Potassium	g	3.17	3.36	3.16	3.36	3.30	3.39	3.12	3.25
Thiamin	mg	1.63	1.71	1.63	1.71	1.71	1.69	1.63	1.71
Riboflavin	mg	1.87	2.02	1.87	2.02	1.98	2.08	1.86	1.98
Niacin Equivalent	mg	33.6	35.2	33.5	35.2	35.1	35.5	33.8	34.8
Vitamin B ₆	mg	2.4	2.5	2.4	2.5	2.6	2.5	2.4	2.5
Vitamin B ₁₂	µg	6.2	6.7	6.2	6.6	6.4	7.3	6.2	6.5
Folate	µg	295	315	295	317	306	310	284	303
Vitamin C	mg	78	83	78	83	78	81	77	81
Vitamin A:									
Retinol	µg	518	599	521	578	504	800	485	572
Carotene	µg	2177	2398	2189	2402	2298	2437	1989	2344
Retinol equivalent	µg	882	1001	888	981	888	1206	817	965
Vitamin D	µg	3.03	3.32	3.02	3.32	3.40	3.54	2.91	3.12
Vitamin E	mg	12.33	12.22	12.35	12.20	12.85	11.96	11.87	12.48

Table 3.9 continues over the page

Table 3.9 continued

		Urban (GB)	Rural (GB)	England urban	England rural	Wales urban	Wales rural	Scotland urban	Scotland rural
Percentage contributions of macronutrients to energy intake excluding alcohol									
Fat	%	38.3	38.6	38.4	38.7	38.8	38.0	38.0	38.5
Fatty acids:									
Saturates	%	14.2	14.8	14.1	14.9	14.5	14.5	14.4	14.6
Monounsaturates	%	14.8	14.8	14.8	14.8	14.8	14.5	14.6	14.7
Polyunsaturates	%	6.9	6.6	7.0	6.6	7.0	6.5	6.5	6.7
Carbohydrate	%	47.4	47.1	47.4	47.0	46.9	47.9	47.8	47.5
Non-milk extrinsic sugars	%	13.9	14.5	13.8	14.4	13.9	15.9	14.3	14.4
Total Protein	%	14.1	14.1	14.1	14.1	14.2	14.0	14.1	14.0
As a percentage of weighted reference nutrient intake ^(f)									
Energy ^(e)	%	108	112	107	113	112	113	110	114
Energy exc alcohol ^(e)	%	105	108	104	109	108	109	106	110
Protein	%	170	174	169	174	177	173	169	175
Calcium	%	139	147	138	147	147	147	141	148
Iron	%	114	123	114	123	119	121	114	120
Zinc	%	116	120	115	120	120	120	116	120
Magnesium	%	108	112	108	113	112	112	107	110
Sodium	%	186	193	184	192	199	191	197	201
Potassium	%	100	104	100	104	105	104	97	102
Thiamin	%	196	203	195	203	204	200	194	204
Riboflavin	%	165	175	165	175	174	180	163	173
Niacin equivalent	%	243	252	242	253	253	254	244	252
Vitamin B ₆	%	197	205	197	206	213	205	194	204
Vitamin B ₁₂	%	451	476	451	474	465	519	443	467
Folate	%	158	166	158	167	164	163	150	161
Vitamin C	%	203	214	203	216	204	208	198	212
Vitamin A (retinol equivalent)	%	143	160	144	157	143	193	131	155

(a) Contributions from pharmaceutical sources are not recorded by the survey.

(b) Available carbohydrate, calculated as monosaccharide equivalent.

(c) As non-starch polysaccharides.

(d) (i) Excludes sodium from table salt (ii) In May 2003 the Scientific Advisory Committee on Nutrition recommended that average salt intake for adults should not exceed 6 grams per day, equivalent to 2.4 grams of sodium.

(e) As a percentage of Estimated Average Requirement.

(f) Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. RNI values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group. Weighted RNIs, based on the age/sex composition of the survey sample, have been calculated for comparison with population average intakes.

Chapter 4 Demographic Comparisons

4.1 Overview

This chapter examines how key dietary intakes vary with demographic characteristics of households. It examines age, region, income and ethnicity with respect to sodium, saturated fatty acids, Non-Milk Extrinsic Sugars (NMES), fruit, vegetables and fibre.

In general, higher income is associated with a better diet whilst greater age has a mixed association. Those with higher incomes purchased more fruit and vegetables and achieved higher fibre intake. Intake of NMES fell as income rose for those with higher income (deciles 8 to 10) but sodium intake increased gradually with income. Households with an older Household Reference Person (HRP) had greater intakes of saturated fatty acids. Intake of vegetables and fibre also increased with age of HRP up to age group '60 to 69', and for fruit up to age group '70 to 79'.

4.2 Statistical method

Since correlations between the demographic characteristics are common and make simple tables difficult to interpret, multiple regression (see [glossary](#) for a detailed definition) is used to isolate the pattern in one demographic characteristic while controlling for differences in the others.

A simple form of multiple regression is used with no attempt to model the interrelationships between different demographic characteristics. Each demographic variable is separated into a number of categories e.g. equivalised income is split into ten bands. A main effects regression provides separate estimates for each category of the variable.

The method finds the average demographic pattern in the data. For example if the percentage of energy from fat increases with age then the method finds the average pattern of increase across all regions, ethnic groups, and incomes.

Multiple regression analysis also informs the standard error, which tells us how confident we are with the data. A 95 per cent confidence interval is calculated for all the baseline categories as an example of the upper and lower limit for margin of error. For example with the analysis on sodium, we are confident that the estimate of 3.1 grams is within plus or minus 0.1 grams per person per day.

The analyses in this chapter include both household and eating out food and drink purchases. The only exception is when considering fruit and vegetables, for which only household purchases are analysed. Energy from alcohol is excluded from energy intake estimates.

The analysis uses regions as defined in the Nomenclature of Territorial Units for Statistics (NUTS) which is an internationally agreed standard developed by the European Union. There are twelve NUTS 1 regions in the UK: the nine regions of England, plus Wales, Scotland and Northern Ireland. For more information on NUTS codes see the [ONS website](#) and Chapter 3 for regional comparisons.

This chapter uses the concept of the Household Reference Person (HRP) to categorise the data; see [glossary](#) for a detailed definition. Equivalised income uses a measure of standard of living rather than income alone; it adjusts household income for differences in household composition taking into account economies of scale of two or more people living in the same household.

4.3 Baseline group

In drawing out the comparisons, a baseline group is used which is the most frequently occurring category of household in the data. The characteristics of the baseline household are as follows:

Table 4.1: Baseline household

Demographic variable	Baseline category
Region	South East of England
Household composition	2 adults, no children
Age of HRP	40-49 years
Ethnicity of HRP	White British
Equivalised income	Income decile 4

4.4 Analyses in this section

Six analyses are presented. They focus on public health objectives and aim to identify key demographic differences, which may be useful in developing a clearer understanding of the barriers to healthier eating.

Table 4.2: Summary of analyses

Item	Population Recommendations
Sodium	<p>Less than 2.4 grams sodium per day (6 grams of salt).</p> <p>Figures in this analysis do not include table salt and so are not directly comparable with the recommended maximum level of 2.4 grams; however, data still give a good indication of patterns in sodium intake by demographics.</p>
Percentage of energy intake derived from saturated fatty acids	<p>Population average intake should contribute no more than 11 per cent of food energy.</p> <p>Chapter 2 shows that the current percentage exceeds this recommendation.</p>
Percentage of energy intake derived from non-milk extrinsic sugars	<p>Population average intake should contribute no more than 11 per cent of food energy.</p> <p>Chapter 2 shows that the current percentage exceeds this recommendation.</p>
Fruit	<p>At least 400g of fruit and vegetables per day equivalent to the 5 A DAY guidance.</p> <p>Chapter 1 shows a 3.2 per cent drop in purchases of fruit since 2009.</p>
Vegetables excluding potatoes	<p>At least 400g of fruit and vegetables per day equivalent to the 5 A DAY guidance.</p> <p>Chapter 1 shows a 1.5 per cent drop in purchases of vegetables since 2009.</p>
Fibre	<p>Population average intake of at least 18 grams per day.</p> <p>Chapter 2 shows that intake did not reach this recommendation in 2012.</p>

Results of each analysis concentrate on the demographic variables that showed the most correlation; hence, each section may focus on different variables (age, region, ethnic origin, etc). Intakes are calculated from combined household and eating out purchases. See Chapter 2 for UK averages.

4.5 Sodium

Variation in sodium intake across demographic groups is explored using the baseline group as a benchmark. Sodium intake analysis from this survey excludes the contribution from table salt and salt added during cooking and is therefore an underestimate of total intake.

The 95 per cent confidence interval for the baseline group ranged between 3.0 grams and 3.2 grams per person per day.

Chart 4.1a: Sodium by income (baseline characteristics other than income) 2012

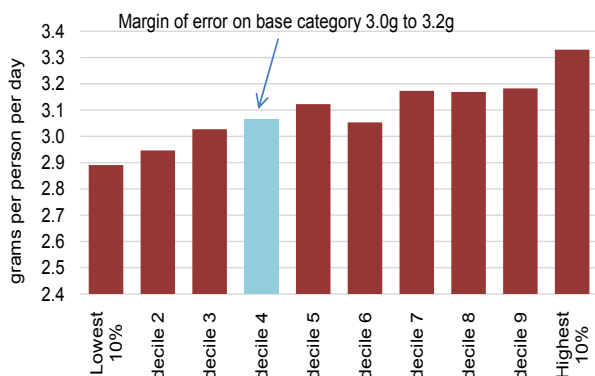
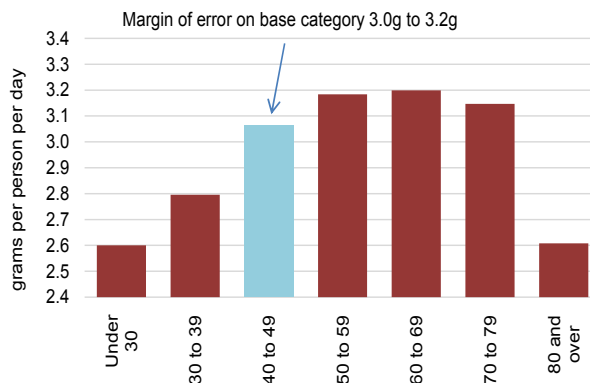


Chart 4.1b: Sodium by age of HRP (baseline characteristics other than age of HRP) 2012



- Sodium intake from food increased gradually with income.
- The range of sodium intake across income deciles was 0.4 grams per person per day between the highest and lowest groups; ranging from 2.9 grams to 3.3 grams per person per day.
- The range of sodium intake from food across age of HRP groupings was 0.6 grams per person per day between the highest and lowest groups; ranging from 2.6 grams to 3.2 grams per person per day.
- The sodium content of purchased foods increased with age of HRP up to '60 to 69' years.
- Households where the HRP was aged '50 to 59 years' or '60 to 69' years had the highest sodium intake from food purchases.
- Households where the HRP was under 30 years or '80 and over' had the lowest sodium intake from food purchases.
- In 2012, households in Northern Ireland and Scotland had higher sodium intakes from food purchases than those in England and Wales.

4.6 Saturated fatty acids

Variation in intake of saturated fatty acids across demographic groups is explored using the baseline group described in 4.3 as a benchmark. On average, people obtained 14.2 per cent of food energy from saturated fatty acids in 2012 based on combined household and eating out purchases. See Chapter 2 for UK averages.

The approximate 95 per cent confidence interval for the baseline group ranged between 14.0 per cent and 14.4 per cent of food energy derived from saturated fatty acids.

Chart 4.2a: Percentage of energy from saturated fatty acids by **age of HRP** (baseline characteristics other than age of HRP) 2012

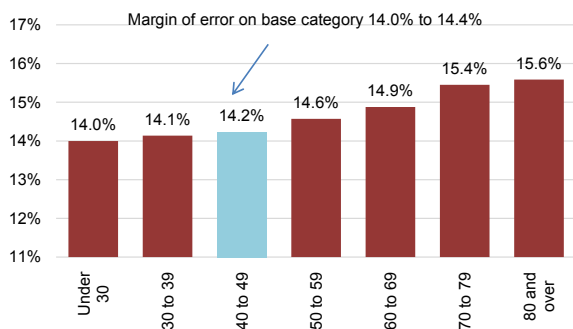
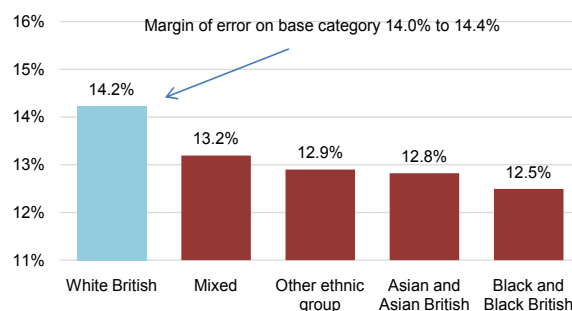


Chart 4.2b: Percentage of energy from saturated fatty acids by **ethnicity** (baseline characteristics other than ethnicity) 2012



- The percentage of food energy derived from saturated fatty acids ranged by 1.6 percentage points across age groupings of the HRP; the lowest were 'under 30'; the highest were '80 and over'.
- The percentage of food energy intake derived from saturated fatty acids rose with the age of the HRP.
- The percentage of food energy derived from saturated fatty acids ranged by 1.7 percentage points across ethnic groups; the lowest were 'Black and Black British'; the highest were 'White British'.
- Region is not a significant factor influencing the percentage of energy obtained from saturated fatty acids. Variation across all regions was no more than 0.7 percentage points.

4.7 Non-milk extrinsic sugars (NMES)

The approximate 95 per cent confidence interval for the baseline group ranged between 13.3 per cent and 14.2 per cent of food energy derived from NMES. The major food purchases contributing to NMES intake are 'not low calorie' soft drinks and 'sugars and preserves' and confectionery.

Chart 4.3a: Percentage of energy from NMES by **income** (baseline characteristics other than income) 2012

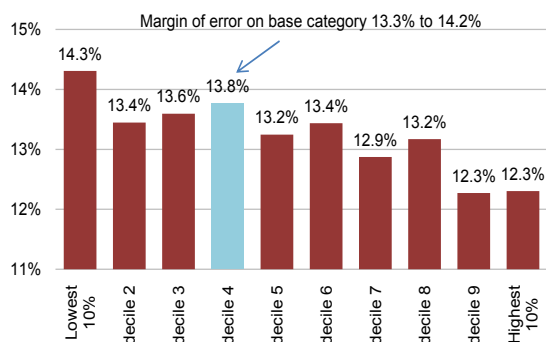
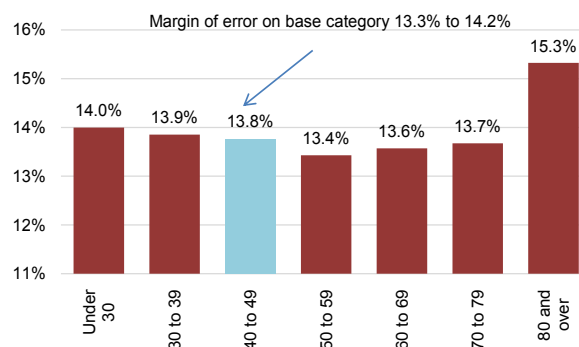


Chart 4.3b: Percentage of energy from NMES by **age of HRP** (baseline characteristics other than age of HRP) 2012



- In 2012 households in the lowest income group, (decile 1) obtained the largest percentage of energy from NMES, compared to other income groups, at 14.3 per cent.
- Deciles 9 and 10 (highest income groups by equivalised income) had the lowest percentage of food energy derived from NMES at 12.3 per cent.
- All income deciles exceeded the recommended maximum level of 11 per cent of energy from NMES.
- The percentage of food energy derived from NMES varied across the age groupings of the HRP by 1.9 percentage points.
- There was little variation across the age groups except for the 80 and over category, which was markedly higher than all other age groups.
- All HRP age groups exceeded the recommended level of 11 per cent of food energy from NMES. The evidence from the Family Food Survey is supported by the [National Diet and Nutrition Survey](#)¹ which reported that; "mean NMES intakes exceeded recommended levels (no more than 11 per cent food energy) for all groups most notably for children aged 11 to 18 years where mean intakes provided 15.3 per cent food energy".
- Variation in percentage of energy derived from NMES was 1.4 percentage points across regions. In 2011 and 2012 households in London and Northern Ireland purchased foods with the lowest amount of food energy from NMES.

¹ National Diet and Nutrition Survey: Headline Results from Years 1, 2 and 3 (combined) of the rolling programme 2008/09 – 2010/11, Department of Health.

4.8 Fruit

This analysis includes all household purchases of fresh and processed (e.g. dried, frozen and canned) fruit, including fruit juice but excludes nuts, fruit contained in composite products (e.g. fruit pudding) and all eating out fruit purchases. Variation in fruit purchases across demographic groups is explored using the baseline group as a benchmark.

The approximate 95 per cent confidence interval for the baseline group ranged between 149 grams and 173 grams of fruit purchases per person per day.

Chart 4.4a: Fruit purchases by income
(baseline characteristics other than income)
2012

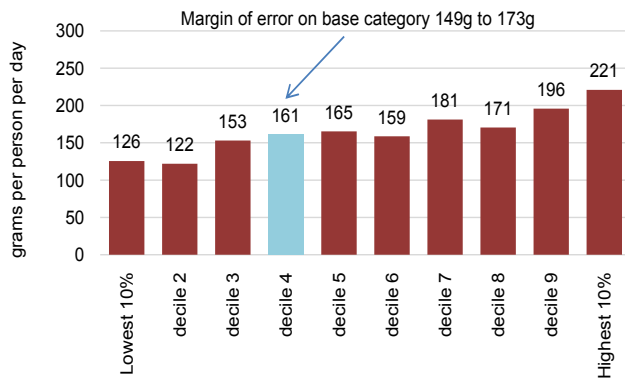
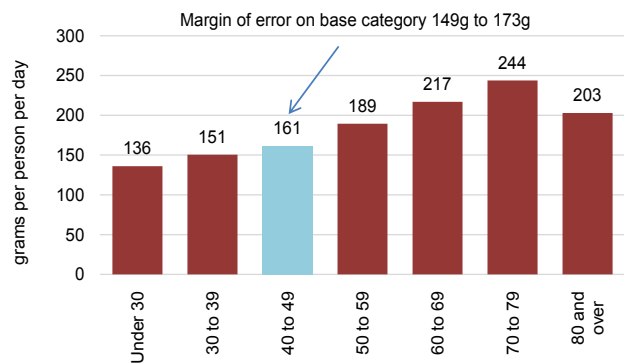


Chart 4.4b: Fruit purchases by age of HRP
(baseline characteristics other than age of HRP)
2012



- Fruit purchases generally rose with income and varied by nearly 100 grams per person per day between the highest and lowest income groups.
- The lowest income households (deciles 1 and 2) purchased the lowest amount of fruit, 126g and 122g respectively. This is equivalent to just over 1.5 portions of fruit per person per day.
- Fruit purchases varied by 108 grams across the age groupings of the HRP.
- Fruit purchases increased with age up to the 70 to 79 group.
- Households where the age of the HRP is under 30 purchased the least fruit.

4.9 Vegetables

This analysis excludes potatoes, vegetables contained in composite products (e.g. vegetable curry) and eating out purchases of vegetables. Variation in vegetable purchases across demographic groups is explored using the baseline group as a benchmark.

The approximate 95 per cent confidence interval for the baseline group ranged between 185 grams and 204 grams of vegetable purchases per person per day.

Chart 4.5a: vegetable purchases by income (baseline characteristics other than income) 2012

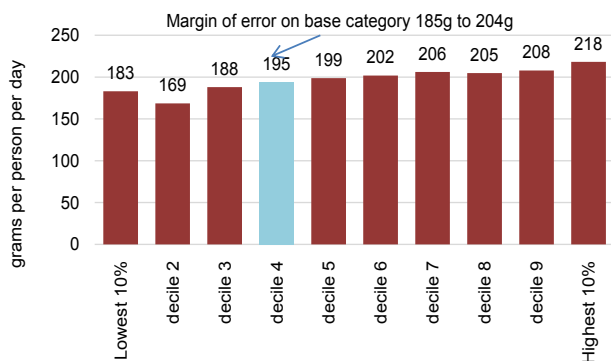
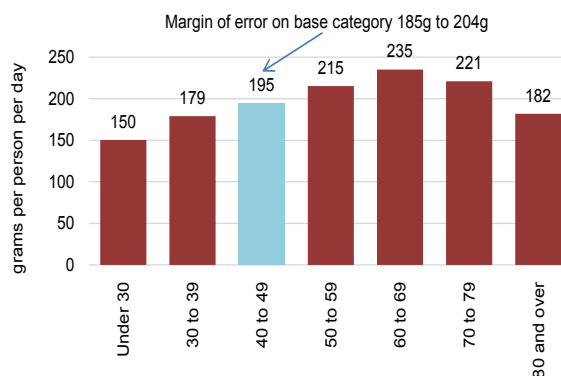


Chart 4.5b: vegetable purchases by age of HRP (baseline characteristics other than age of HRP) 2012



- Vegetable purchases generally rose with income and varied by 49 grams per person per day between the highest income decile and income decile 2, equivalent to more than half an 80 gram portion.
- Vegetable purchases varied by 85 grams per person per day across age groupings of the HRP.
- Vegetable purchases increased with age until the HRP is 60 to 69, after which it decreased.
- Households with the HRP under 30 purchased the least amount of vegetables, 150 grams per person per day, which is less than 2 portions.
- Households with the HRP aged 60 to 69 purchased close to 3 portions of vegetables per person per day.
- Variation across all regions was 45 grams of vegetables per person per day.

4.10 Fibre

Variation in fibre intake across demographic groups is explored using the baseline group of households. The approximate 95 per cent confidence interval for the baseline group ranged between 14.9 grams and 15.9 grams per person per day.

Chart 4.6a: Fibre by **income** (baseline characteristics other than income) 2012

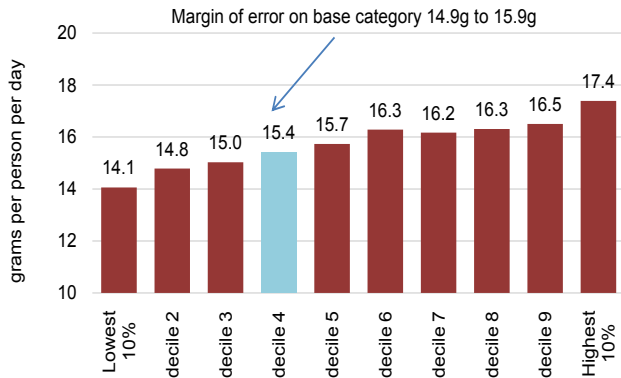
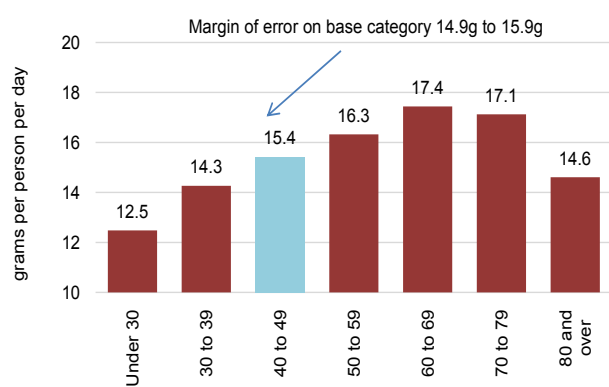


Chart 4.6b: Fibre by **age of HRP** (baseline characteristics other than age of HRP) 2012



- All income deciles were below the recommended average of 18 grams of fibre per person per day in 2012.
- Fibre intake increased with income and varied by 3.3 grams per person per day between the highest and lowest income groups.
- Fibre intake ranged 4.9 grams per person per day across age groups of the HRP.
- Fibre intake increased with the age of the HRP up to the 60 to 69 years age group, which achieved on average 17.4 grams per person per day.

Chapter 5 Dietary Trends

5.1 Overview

This chapter examines the effects of recent changes in food and drink purchasing patterns on indicators of healthy diet, and presents evidence on levels of trading down. The Family Food Survey is a key data source for dietary indicators because it provides annual estimates on a consistent basis since 2001 and comparable estimates for many years previously.

Chapter 5 focuses on years 2007 to 2012 to capture the whole period of food price rises, unlike the evidence presented in Chapters 1, 2 and 3 where the focus is on years 2009 to 2012.

There is also a focus on low income households to examine the greater effects food price rises may have on vulnerable groups in society. Low income is one of many reasons to be vulnerable in society but with Family Food Survey data available from 2001 onwards, this group are used here for simplicity. In the context of this chapter, low income households are identified as those within the lowest twenty per cent of households by equivalised income, a measure of household income that accounts for differences in household size and composition.

Key points

- In 2012, the percentage of spend on food and non-alcoholic drinks for the average UK household was 11.6 per cent, the highest it has been since 2003-4.
- The percentage of spend on food continues to be highest for households with the lowest 20 per cent of income, at 16.6 per cent in 2012, 1.4 percentage points above the 2007 level. Food is the largest item of household expenditure for low income households, after housing, fuel and power costs.
- Between 2011 and 2012, the lowest income households (bottom 10 per cent) decreased energy intake from household food while those in the second decile increased energy intake.
- On average households traded down to cheaper products to save nearly 6 per cent while the lowest income households traded down to a much lesser extent.
- All households spent 17 per cent more on food in 2012 than in 2007. Households in income decile 1 spent 22 per cent more.
- Intakes of fat, saturated fatty acids and sodium have been declining since 2007.
- Intake of non-milk extrinsic sugars (NMES) has declined since 2007, whilst fibre has been relatively stable.

5.2 Effects of food price rises

Food prices from 2007 to 2012

In real terms (taking out the underlying effects of general inflation) food prices rose from September 2007, peaking in February 2009, before steadying at a new higher level. During 2012 food prices were around 12 per cent higher in real terms than in 2007.

Table 5.1 shows average food prices in 2012 for key food groups. On average, food prices overall rose by 3.1 per cent in 2012, slightly above the all items rate of inflation as measured by the Consumer Price Index (CPI). The highest rises in price were recorded against beef, pork, coffee and hot drinks, and sweets and chocolate. For bread, milk and eggs prices fell.

Table 5.1: Food price evolution, 2007=100

	2007	2008	2009	2010	2011	2012	% change since 2007	% change since 2011
All Items Consumer Price Index	100	104	106	109	114	117	+17	+2.8
CPI food items	100	110	116	120	126	130	+30	+3.1
Bread	100	115	119	119	125	125	+25	-0.4
Cereals	100	113	121	123	130	136	+36	+4.0
Biscuits and cakes	100	111	115	120	133	139	+39	+4.1
Beef	100	115	124	124	129	143	+43	+11
Lamb	100	109	122	128	155	158	+58	+1.8
Pork	100	115	124	128	135	145	+45	+6.9
Bacon	100	109	115	113	116	116	+16	+0.6
Poultry	100	113	116	116	122	123	+23	+1.0
Fish	100	107	113	119	131	136	+36	+4.3
Butter	100	123	121	138	159	164	+64	+2.6
Cheese	100	115	120	122	129	133	+33	+3.5
Eggs	100	127	131	136	137	135	+35	-1.5
Milk	100	114	122	121	122	120	+20	-1.3
Tea	100	106	118	133	138	139	+39	+0.5
Coffee and hot drinks	100	104	112	113	128	136	+36	+6.0
Soft drinks	100	102	105	112	121	126	+26	+4.2
Sugar and preserves	100	106	120	121	125	129	+29	+2.7
Sweets and chocolates	100	107	115	122	132	138	+38	+5.2
Potatoes	100	111	116	118	125	130	+30	+3.9
Vegetables	100	108	115	118	121	124	+24	+2.5
Fruit	100	107	112	121	126	129	+29	+2.4
of which fresh fruit	100	106	113	114	119	123	+23	+3.5
Alcoholic drinks	100	103	108	111	118	121	+21	+2.8

Trading Down, Buying Less and Spending More

Family Food provides evidence based estimates of trading down (see glossary). For foods within a given food code, price rises are measured by the Retail Prices Index and the Consumer Prices Index. In contrast, The Family Food Survey measures the average price or unit price that households have paid for foods within a food code. The difference between the rise in price and the rise in unit price paid provides a way of estimating trading down. This is calculated by dividing (deflating) the rise in price paid by the actual rise in price for each food code.

Table 5.2 shows how consumers have reacted to price rises between 2007 and 2012 for different types of food and drink, including estimates of trading down. The table shows the true change in price (measured by CPI) and how the consumer has responded to this by a combination of buying less, spending more and trading down.

Table 5.2: Consumers' response to food price rises

Percentage changes between 2007 and 2012	Price rise	Quantity purchased		Expenditure		Trading Down ^(a) (deflated unit value)	
		All households	Income decile 1	All households	Income decile 1	All households	Income decile 1
Food	+30	-4.7	-5.7	17	22	-5.6	-1.0
Bread	+25	-9.1	-11	14	17	0.6	5.4
Cereals	+36	1.1	-6.1	24	30	-9.7	1.7
Biscuits & cakes	+39	-3.9	-16	24	7.0	-7.1	-8.4
Beef	+43	-17	-28	15	17	-2.5	14
Lamb	+58	-33	na	-0.6	na	-8.5	na
Pork	+45	2.8	19	19	46	-20	-15
Bacon	+16	6.9	-12	23	6.0	-1.4	4.1
Poultry	+23	0.0	11	28	61	3.5	18
Fish	+36	-12.5	-19	7	15	-10.0	3.3
Butter	+64	-0.5	-23	48	17	-9.0	-6.4
Cheese	+33	-3.8	-5.2	19	22	-7.2	-3.3
Eggs	+35	11	12	34	41	-8.6	-8.9
Milk	+20	-4.2	-8.9	9.9	6.3	-5.1	-7.7
Tea	+39	-15	-13	9.3	28	-7.9	6.6
Coffee & hot drinks	+36	-5.5	-1.8	29	50	0.0	13
Soft Drinks	+26	-3.1	-3.8	22	34	-0.3	11
Sugar & preserves	+29	-1.3	5.3	32	36	4.2	0.3
Sweets & chocolates	+38	-1.7	-6.9	22	12	-10	-13
Potatoes	+30	-11	-10	-0.4	-1.6	-14	-13
Vegetables	+24	-4.7	-6.3	13	17	-4.8	-0.1
Fruit	+29	-14	-16	11	9.2	-1.1	1.1
of which fresh fruit	+23	-13	-20	10	6.6	1.4	6.7
Alcoholic drinks	+21	-9.3	-8.0	18	46	7.0	31

^(a) a positive value indicates trading up
na: not statistically reliable

Change in expenditure = change in price
+ change in quantity purchased
+ change in unit value achieved

For example, for butter there was a change in expenditure of +48 per cent for all households. Quantity of butter purchases reduced by 0.5 per cent and all households managed to reduce their unit price paid (trading down) by 9.0 per cent. The dominant response to the 64 per cent price rise in butter between 2007 and 2012 was to spend more money on butter purchases.

Table 5.3: Main consumer reaction to the high food prices between 2007 and 2012 (a)

Main consumer reaction - 2012					
	Trading down	Buying more	Buying less	Spending less	Spending more
All households	Cereals (-10%)	Eggs	Beef		Bread
Trading down (-5.6%)	Pork (-20%)		Lamb		Cereals
Buying less (-4.7%)	Fish (-10%)		Fish		Biscuits and cakes
Spending more (+17%)	Butter (-9%)		Tea		Bacon
	Sweets & chocolates (-10%)		Potatoes		Poultry
	Potatoes (-14%)		Fruit		Butter
			Alcoholic drinks		Eggs
					Coffee & hot drinks
					Sugar & preserves
	Trading down	Buying more	Buying less	Spending less	Spending more
Income decile 1	Pork (-15%)	Pork	Biscuits & cakes		Cereals
Trading down (-1.0%)	Sweets & chocolates (-13%)	Poultry	Beef		Pork
Buying less (-5.7%)	Potatoes (-13%)	Eggs	Bacon		Poultry
Spending more (+22%)	Eggs (-9%)		Fish		Eggs
	Biscuits & cakes (-8%)		Butter		Coffee & hot drinks
	Poultry (+18%)		Tea		Soft drinks
	Alcoholic drinks (+31%)		Fruit		Sugar & preserves
					Alcoholic drinks

(a) a positive value indicates trading up

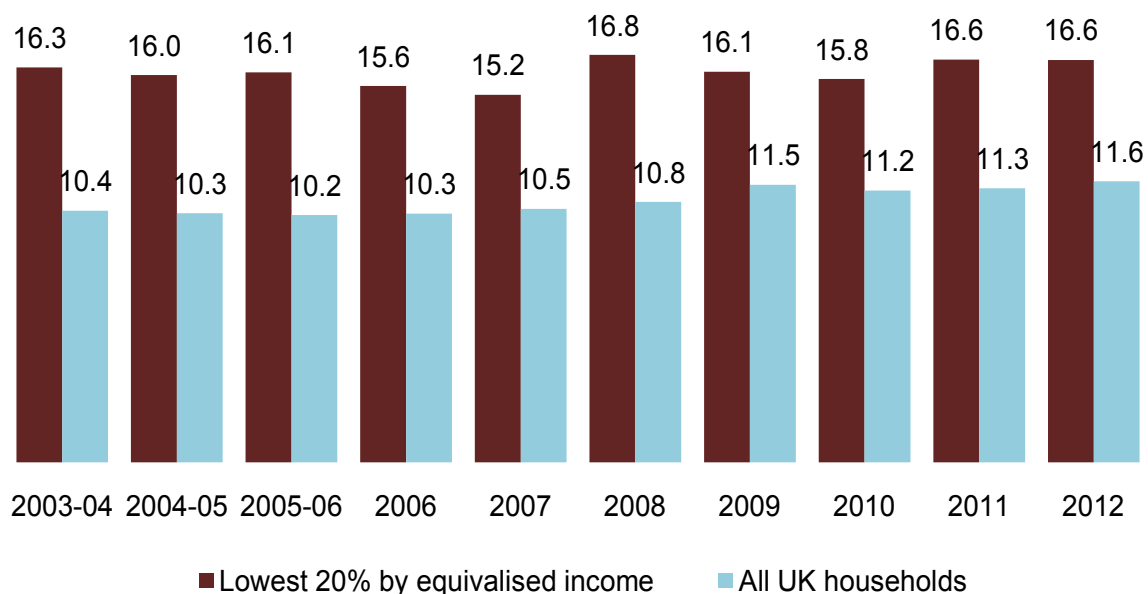
Table 5.2 and 5.3 show:

- On average UK households purchased 4.7 per cent less food in 2012 than in 2007 while spending 17 per cent more. They saved 5.6 per cent by trading down to cheaper products.
- Households in income decile 1 (lowest income group) spent 22 per cent more on food in 2012 than in 2007 and purchased 5.7 per cent less. Trading down saved these households 1.0 per cent.
- On average UK households traded down on pork to save 20 per cent between 2007 and 2012. In the same period households in income decile 1 (lowest income group) spent 46 per cent more buying more pork.
- Since 2007 UK households have bought less beef, lamb, fish, fruit, potatoes and alcoholic drinks but more eggs.
- Since 2007 households in decile 1 (lowest income group) have bought less butter, beef, bacon, fish, fruit, tea and biscuits but more pork, poultry and eggs.
- There is an element of trading up with purchases of alcoholic drinks, with expenditure increased but quantities reduced, a feature more marked in the lowest income group households.

5.3 Indicator of affordability of food

The relative affordability of food can be measured by the share of the household budget going on food, i.e. the percentage of total household spending that goes on household food purchases. If the percentage increases, food is placing a greater burden on spending. Low income households are of particular concern because they tend to have a greater percentage of spend going on food.

Chart 5.1: Percentage of spend going on food and non-alcoholic drinks



In the UK, an average 11.6 per cent of household spend went on food in 2012, while for the lowest 20 per cent of households by equivalised income it was higher at 16.6 per cent.

For all households in the UK the percentage of spend on food was 1.1 percentage points above the 2007 level, whilst for the lowest 20 per cent by equivalised income it was up by 1.4 percentage points. Food is exerting greater pressure on household budgets since 2007 when food prices started to rise in real terms.

Low income households bought less food in 2012 than in 2007. The trading down analysis (Table 5.2) shows that the lowest ten per cent of households by income purchased 5.7 per cent less food by weight between 2007 and 2012. The energy content of food purchases by households in the lowest two income deciles is also below its 2007 level (see Chart 5.6).

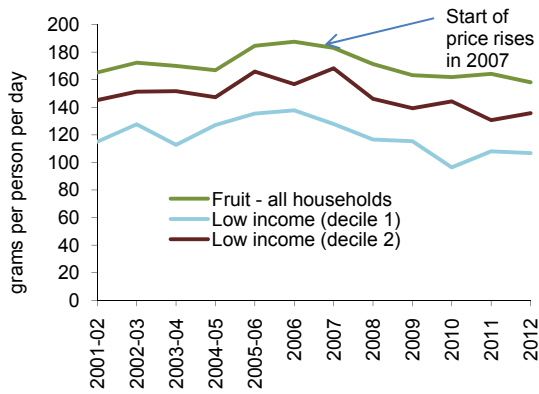
Towards the end of 2012 food inflation started to increase and was higher than all items inflation. This continued into 2013 and suggests that the percentage spend on food could increase for 2013.

5.4 Fruit and vegetables

Government advice on healthy eating is primarily in terms of the “eatwell plate” and the 5 A DAY message. Both recommend a significant increase on current consumption of fruit and vegetables. Family Food provides reliable evidence on trends, which are examined in detail here.

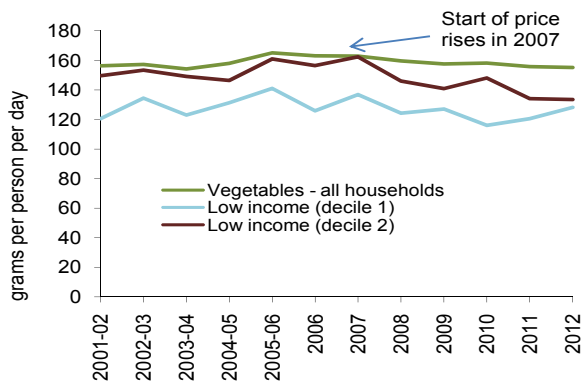
Increasing the consumption of fruit and vegetables is a Government policy. Family Food provides evidence of recent reductions in consumption using household purchases as a proxy for consumption. This relies on the assumption that household wastage rates of fruit and vegetables remain relatively stable compared to changes in purchases.

Chart 5.2a: Trends in fruit purchases



- Purchases of fruit increased to 2006 but have fallen 14 per cent since 2007.
- Lowest income households (decile 1), purchased 16 per cent less fruit in 2012 than in 2007.
- Income decile 2 households purchased 19 per cent less fruit in 2012 than in 2007.

Chart 5.2b: Trends in vegetable purchases



- Purchases of vegetables peaked in 2005 and have fallen 4.7 per cent since 2007 with larger falls for lower income groups.
- Lowest income households (decile 1) purchased 6.3 per cent less vegetables in 2012 than in 2007.
- Income decile 2 households purchased 18 per cent less vegetables in 2012 than in 2007.

Table 5.4: Household purchases of fruit and vegetables

Grams per person per week	2007	2008	2009	2010	2011	2012	% change since 2007
All households							
Fruit and vegetables excluding potatoes	2421	2317	2246	2240	2240	2193	-9.4
Fruit	1281	1199	1143	1133	1150	1107	-14
Vegetables	1140	1118	1103	1107	1090	1086	-4.7
Income decile 1 households							
Fruit and vegetables excluding potatoes	1853	1686	1697	1487	1600	1645	-11
Fruit	895	816	807	675	756	747	-16
Vegetables	958	870	890	812	844	898	-6.3
Income decile 2 households							
Fruit and vegetables excluding potatoes	2314	2044	1961	2047	1853	1885	-19
Fruit	1178	1022	975	1010	915	950	-19
Vegetables	1137	1022	986	1037	939	935	-18

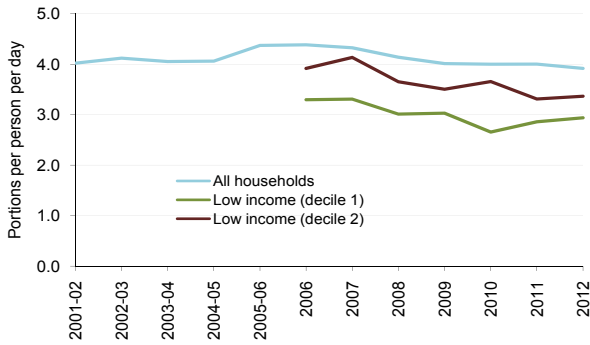
Table 5.4 shows that:

- Fruit and vegetable purchases were 9.4 per cent lower in 2012 than 2007.
- For income decile 1 the drop is 11 per cent, and for decile 2 it is 19 per cent.
- Households in income decile 1 purchase the least fruit and vegetables.
- In 2012 income decile 1 households purchased 25 per cent less fruit and vegetables than all households.
- In 2012 income decile 1 households purchased 13 per cent less fruit and vegetables than those in income decile 2.
- Fruit purchases have declined faster than vegetable purchases since 2007.

Measuring fruit and vegetable purchases against 5 A DAY Guidance

Family Food estimates of fruit and vegetables can be compared against 5 A DAY consumption guidelines by assuming 80 grams per portion. The approach is approximate because it is based on purchases rather than consumption and so does not take account of edible or inedible waste; it excludes purchases not taken into the household, it excludes fruit and vegetables in composite meals, it includes all processed fruit, fruit juice and nuts, and it assumes 80 grams per portion for all ages and all produce.

Chart 5.3 Trends in fruit and vegetable purchases measured as portions



- Fruit and vegetable purchases peaked in 2006.
- On average, all households purchased 3.9 portions of fruit and vegetables per person per day in 2012.
- Lower income households (deciles 1 and 2) have consistently purchased smaller quantities of fruit and vegetables.
- Income decile 1 households purchased 2.9 portions of fruit and vegetables per person per day in 2012.

The **Health Survey for England** shows a similar trend to Family Food in that reported consumption of fruit and vegetables by adults peaked in 2006 and then fell from 2006 to 2011.

The **National Diet and Nutrition Survey** provides estimates of fruit and vegetable consumption that includes estimates for fruit and vegetables in composite foods such as manufactured products and homemade dishes.

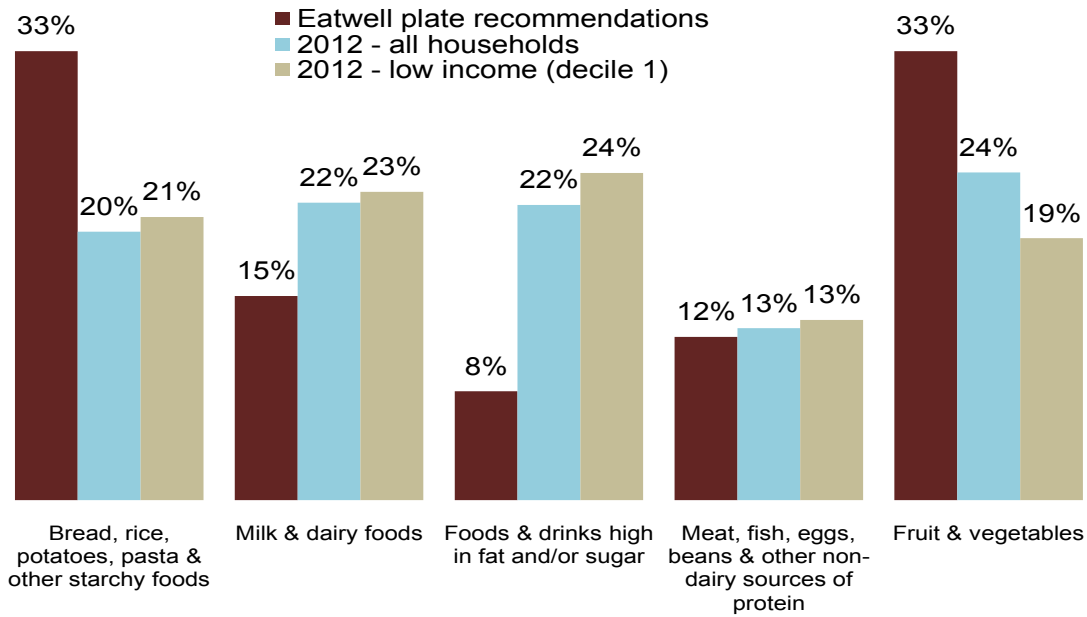
Defra estimates that 22 per cent of edible fruit and vegetable purchases are wasted. **WRAP estimates of household food and drink waste** suggest that more than 13 billion portions of fruit and vegetables were thrown away in 2012.

5.5 Eatwell plate

The eatwell plate forms the basis of the Government’s healthy eating advice to the general population. It makes healthy eating easier to understand by giving a visual representation of the types and proportions of foods that should be eaten to make a well-balanced, healthy diet. This includes snacks as well as meals. The eatwell plate is intended as a guide to the overall balance of the diet over a day or a week rather than for any specific meal.

Food and drink purchases for household supplies were grouped approximately into the five eatwell plate groups. Based on these groupings, Chart 5.4 shows the average UK diet for all households and low income households (equivalised income decile 1) compared to the eatwell plate categories.

Chart 5.4: Eatwell plate comparison for low income and all households



Looking at balance of diet:

- Neither low income households or all households are close to the eatwell plate as a whole.
- For non-dairy sources of protein, both low income and all households are close to the eatwell plate ideal.
- Both low income households and all households have a relatively similar diet when compared to the eatwell plate.
- The main difference between low income households and all households is in fruit and vegetable purchases where low income buy less.

5.6 Energy intake

Levels of obesity are linked with the risk of developing diseases such as; diabetes, coronary heart disease and some cancers, all of which affect the future cost of health care. Energy intake together with energy expenditure determines the overall energy balance. Statistics on obesity levels in England are available on the [Health and Social Care Information Centre](#) website.

Reducing levels of obesity is a Government policy. While Family Food provides evidence of long term reductions in energy intake it does not capture information on energy expenditure. Therefore, the Family Food data on its own cannot be used to predict reductions in obesity.

To obtain the best estimates of trends in energy content of food purchases by households, an index is calculated such that year on year changes compare like with like, i.e. eating out energy is only added to the calculation once there are two years of data. This approach is required because the basis of estimation of energy intake has evolved over the years as shown in Table 5.5 and Chart 5.5.

Table 5.5: Estimates of energy intake as the survey has evolved

National Food Survey				Expenditure & Food Survey (EFS) and Living Costs & Food Survey (LCFS)			Combined Series ^(c)			Index of change
Excluding asc ^(a)	Including asc ^(a)	Aligned with EFS ^(b)	NFS eating out	Household (HH)	Eating out (EO)	HH + EO	Household (HH)	Eating out (EO)	HH + EO ^(d)	
<i>kcal per person per day</i>										
1940	2355						2355		2355	
1974	2320						2534		2534	100
1980	2230						2439		2439	96
1990	1870						2058		2058	81
1995	1780	1881	2143	240			2143	240	2383	77
2000 (e)	1750	1881	2152	230			2152	230	2382	78
2001-02					2098	310	2098	310	2409	76
2003-04					2079	303	2079	303	2381	75
2005-06					2082	280	2082	280	2362	74
2006					2074	276	2074	276	2351	74
2007					2052	268	2052	268	2320	73
2008					2028	248	2028	248	2276	71
2009					2054	250	2054	250	2304	72
2010					2035	258	2035	258	2293	72
2011					2009	236	2009	236	2245	70
2012					1990	219	1990	219	2209	69

(a) "asc" is alcoholic drinks, soft drinks and confectionery

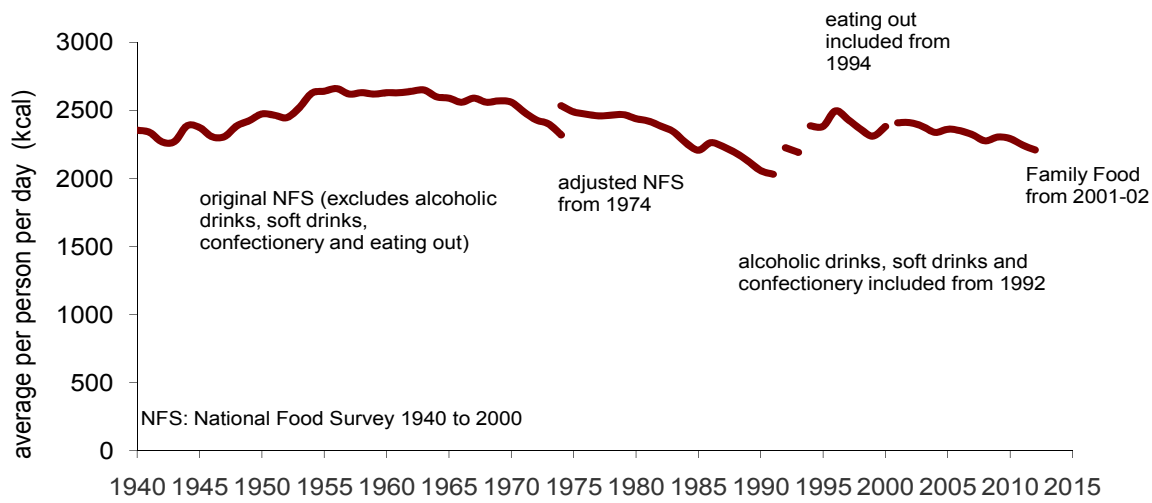
(b) includes alcoholic drinks, soft drinks and confectionery from 1992 onwards

(c) Uses fullest information available each year. Historical estimates of household purchases between 1974 and 2000 have been adjusted to align with the level of estimates from the Family Expenditure Survey in 2000. Estimates are generally higher than original data and indicate that the scaling has partially corrected for under-reporting in the National Food Survey.

(d) this is the series with breaks shown in chart 5.5.

(e) Change in methodology makes the estimate of the year on year change unreliable between 2000 and 2001-02.

Chart 5.5: Average energy intake from food and drink since 1940



- Energy content of food purchases has been on a downward trend since 1965 as shown in each section of Chart 5.5.
- Energy intake per person declined 31 per cent between 1974 and 2012 (shown in Table 5.5 as 69 for 2012 in the index of change).

Chart 5.6: Energy derived from household food and drink

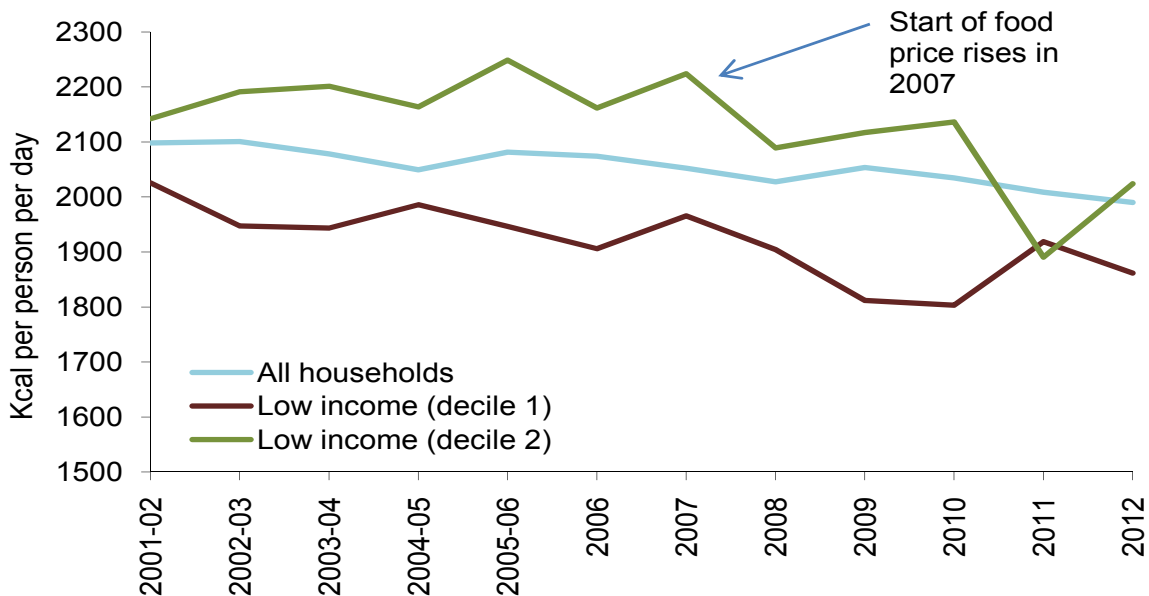


Chart 5.6 shows that:

- Energy intake from household food across all households was 3.0 per cent lower in 2012 than in 2007.
- Income decile 2 households (second lowest group) increased energy intake from household food in 2012 to 2024 Kcal per person per day – above the national average but still 9.0 per cent less than in 2007.
- Income decile 1 households (lowest income group) energy intake from household food fell by 3.0 per cent in 2012 to 1862 Kcal per person per day.

- Income decile 1 households (lowest income group) had 5.3 per cent less energy intake from household food in 2012 than in 2007.

Chapter 2, Table 2.3 shows that the food categories making the greatest contribution to household energy intake are bread, cereal products (which includes breakfast cereals, rice, pasta and pizza), and 'non-carcass meat and meat products' each of which contributes around 10-12 per cent of energy.

Other demographic variables as well as income are important and not considered here. Chapter 4 looks at dietary intakes, but not energy, using more demographic characteristics.

5.7 Nutrient intakes

Family Food data on food and drink purchases is converted into its energy and nutrient content, and thereby enables trends in energy and nutrient intakes to be monitored, based on purchases rather than consumption.

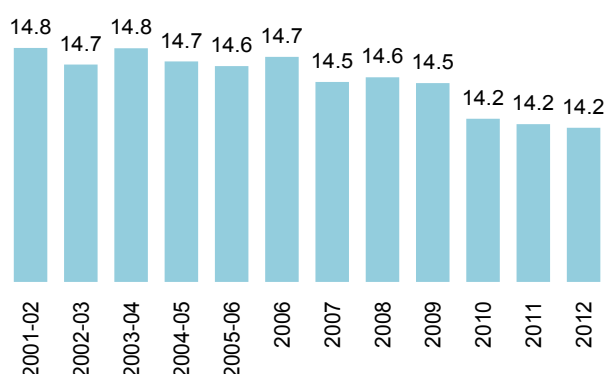
Recommendations for energy and nutrient intakes for the general UK population and age/sex sub-groups have been set by expert scientific advisory committees. The Committee on Medical Aspects of Food and Nutrition Policy (COMA) set **Dietary Reference Values** for population intakes of energy and a range of nutrients. Its successor the Scientific Advisory Committee on Nutrition (SACN) has recently published revised dietary reference values for the energy requirements of the population. The analysis in this report is based on the original values published by COMA, to maintain consistency with previous estimates.

Estimates of the nutrient content of food purchases from this survey, described as intakes, indicate that many of these recommendations are not being met. A large proportion of the population consumes less than the recommended amount of fibre and fruit and vegetables and more than the maximum recommended amount of saturated fatty acids, total fat, salt and non-milk extrinsic sugars. A poor diet impacts on the prevalence of obesity, incidence of coronary heart disease, high blood pressure and strokes and the risk of cancer.

Dietary Reference Values (DRVs) for macronutrients are expressed as a percentage of food energy intake (excluding energy from alcohol) to take account of differing energy requirements. Intakes in this chapter are expressed on the same basis to allow comparison with the DRVs. Unless otherwise stated, all statistics in this chapter are based on food energy intake (excluding energy from alcohol). The estimates are based on food purchases and do not take edible food waste into account.

Fat and saturated fatty acids

Chart 5.7 Recent trend in the percentage of food energy derived from fat and saturated fatty acids from household and eating out food and drink



- Between 2001-02 and 2012, the percentage of energy from saturated fatty acids declined, to 14.2 per cent.
- During the same period, the percentage of energy from fat was generally stable, with an average of 38.3 per cent.
- Both are above the recommended levels.

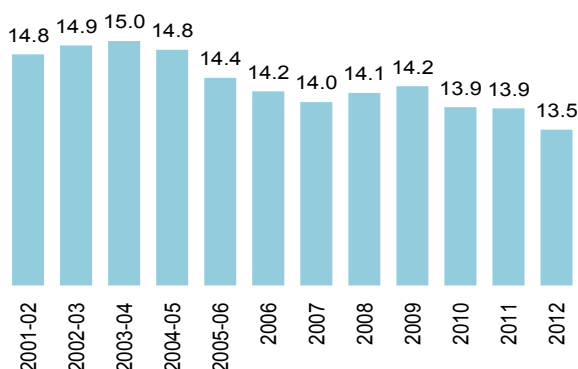
Average (population) intake of total fat should account for no more than 35 per cent and saturated fatty acids no more than 11 per cent of food energy intake. Having too much saturated fat in the diet can increase the amount of cholesterol in the blood, which increases the risk of developing heart disease which is the leading cause of premature death in the UK.

In Chapter 2, Table 2.4 shows that most saturated fatty acids come from purchases of 'oils and fats', 'non-carcass meats and meat products', 'milk and cream' and cheese'. Reductions in purchases of 'milk and cream' and cheese accounted in part for reduced intakes of saturated fatty acids in 2012. In addition, new analytical data for some chocolate confectionery showed reduced saturated fat content due to reformulation.

The National Diet and Nutrition Survey provides supporting evidence that saturated fatty acid intakes exceed the recommended maximum in all age groups. It reports a lower estimate for total fat intake that is in line with the recommended level for most age groups.

Non-milk extrinsic sugars

Chart 5.8 Recent trend in the percentage of food energy derived from NMES from household and eating out food and drink



- 13.5 per cent of energy came from NMES in 2012.
- Between 2003 and 2007, the percentage of energy from NMES dropped from 15.0 to 14.0 per cent.
- There was little change between 2007 and 2011 but in 2012, there was a reduction of 0.4 percentage points.

Chapter 2, Table 2.4 shows that most NMES come from the food categories; 'sugar and preserves', soft drinks and confectionery. The decrease in NMES intake in 2012 was driven by reductions in 'sugar and preserves' and confectionery purchases.

Non-milk extrinsic sugars are a category of sugars that are considered to contribute to dental decay. Extrinsic sugars are any sugars not contained within the cellular structure of a food, either because they have been added to a food in the form of table sugar, honey etc; or because the food has been processed which has released sugars from the cell structure e.g. fruit juice.

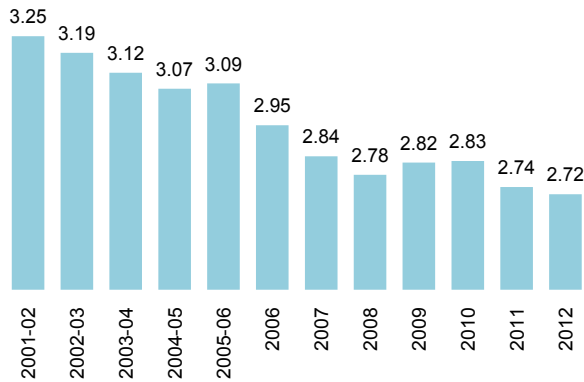
The sugar naturally present in milk and milk products (lactose) is excluded from the definition as it is not considered to have adverse effects on teeth. The recommendation is that intake of NMES should account for no more than 11 per cent of food energy intake.

According to Family Food, the percentage of energy derived from NMES exceeds the recommended maximum levels for the population average diet. In 2012, the population derived 13.5 per cent of food energy from NMES, which is 2.5 percentage points over the maximum recommended level.

The National Diet and Nutrition Survey provides supporting evidence that mean intakes of NMES as a percentage of food energy exceed the recommended levels in all age groups.

Sodium

Chart 5.9 Recent trend in sodium intake from food for household and eating out (in grams per person per day)



- Sodium intakes fell by 0.46 grams between 2001-02 and 2008.
- Although sodium intake from foods fell to a new low level of 2.72 grams in 2012 it has hardly changed since 2008.
- Sodium intake from foods exceeds the maximum recommended level of 2.4 grams per person per day.

The biggest contributors to sodium intake, from Chapter 2, Table 2.4, were 'non-carcase meat and meat products' and bread. Reductions in purchases of both 'non-carcase meat and meat products' and bread have contributed to the reduction in sodium intakes in 2012, but reformulation of manufactured food products is likely to have had some influence.

Family Food provides evidence of trends in sodium intake but underestimates the actual intake levels as it excludes the contribution from table salt purchases (because table salt also has non-food uses in the household).

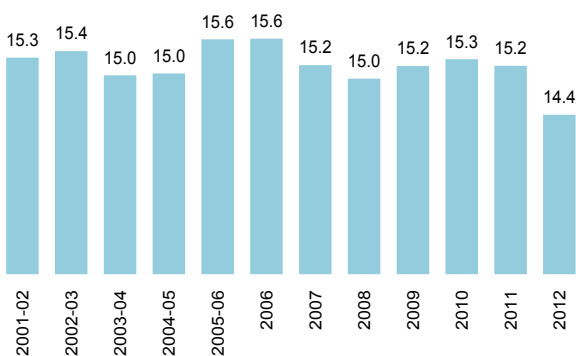
The National Diet and Nutrition Survey provides supporting evidence for the downward trend in sodium intake, reporting a reduction in mean salt intake between 2000-01 and 2011 from 9.5g to 8.1g per day based on urinary sodium excretion, which is accepted as the best method for assessing sodium intake.

Salt (sodium chloride) is the major source of sodium in the UK diet. It is the sodium in salt that can be bad for health. High salt intake contributes to the development of high blood pressure. High blood pressure is a risk factor for cardiovascular disease and stroke. Salt is approximately equal to sodium multiplied by 2.5.

In the report 'Nutritional Aspects of Cardiovascular Disease' (1996), COMA recommended an average intake of salt of 6 grams per day or less for adults. This is equivalent to an intake of 2.4 grams of sodium per day. The amounts are lower for children. This recommendation was endorsed by the Scientific Advisory Committee on Nutrition in its 2003 report 'Salt and Health'.

Fibre

Chart 5.10 Recent trend in fibre intake in grams per person per day



- Fibre intake in 2012 was 14.4 grams per person per day, the lowest level since 2001.
- Fibre intake had been relatively stable from 2007 to 2011 after peaking in 2005 and 2006.
- Fibre intake is below the recommended level by 3.6 grams per person per day.

Most fibre intake comes from the food categories of vegetables, bread and 'other cereal and cereal products' (which includes breakfast cereals, rice and pasta). Reductions in bread, vegetable and fruit purchases are a downward pressure on fibre intakes. This is also due in part to new nutrient composition data for fruit and vegetables in 2012 which had generally lower values for fibre content than previous, older data.

Consumption of a high fibre diet is recommended for gastro-intestinal health and may also help to lower blood cholesterol levels.

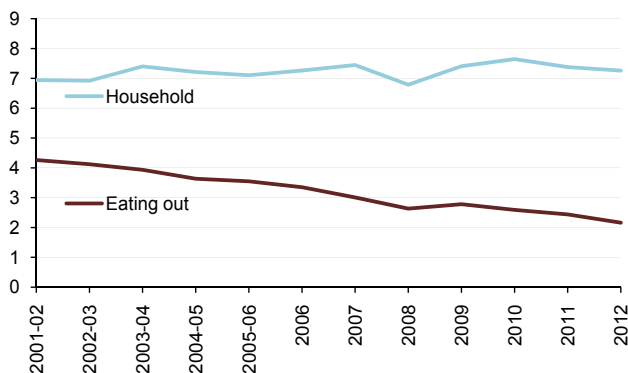
The COMA recommendation is for an average of 18 grams of fibre intake per person per day for adults. The report says that intakes for children should be proportionately less, but does not provide a specific figure.

Alcohol

Regularly drinking above the recommended daily limits for lower risk drinking of 2-3 units for women and 3-4 units for men, significantly increases the risk of ill health.

Chapter 1 shows that household purchases of alcoholic drinks fell by 3.8 per cent in 2012 but are 5.9 per cent higher than in 2009. Eating out purchases fell by 9.8 per cent in 2012 and are 20.9 per cent lower than 2009. Chapter 2 shows that alcohol intake from household and eating out combined in 2011 was 4.0 per cent lower than 2011 and 7.5 per cent lower than in 2009.

Chart 5.11 Trend in intake of alcohol in grams per person per day



- Alcohol intake from eating out purchases declined 49 per cent between 2001-02 and 2012.
- Alcohol intake from household supplies rose by 4.6 per cent between 2001-02 and 2011.
- Alcohol intake overall fell 4.0 per cent in 2012 to 9.4 grams per person per day (averaged over the entire UK population).

The Family Food estimate of the absolute level of intake is likely to be an underestimate due to under-reporting of alcoholic drinks, but the trends are likely to be valid.

About Family Food

Over the last 70 years, we estimate around half a million households have participated in Family Food and its predecessors. Our thanks go to all those respondents, without whose cooperation this invaluable historic data resource would not be possible, and especially to those who freely donated their time in 2012.

Survey organisation

Family Food 2012 is a report on the 2012 Family Food Module of the Living Costs and Food Survey (LCFS). This report provides statistics on food purchases by type of food and includes estimates of nutrient content. Excel datasets and methodology notes are provided on the website with some statistics back to the 1940s. The survey covers about 6,000 households across the United Kingdom each year. Food purchases are reported at a detailed level and demographic patterns and trends are identified.

A total of 11,484 addresses were selected in 2012 for the LCFS in Great Britain, of which 10,386 were eligible households (i.e. were not empty properties or business addresses). In Great Britain 5,425 households co-operated fully in the survey in 2012. The overall response rate for the 2012 LCFS was 52 per cent in Great Britain. In Northern Ireland 171 households co-operated out of a sample of 300, a response rate of 57 per cent

Defra is the main user of the statistics in its coordinating role on food policy across Government. The statistics feature in high level indicators on healthy diet and food security. In Scotland the statistics are used to monitor the health of the Scottish diet. The data is placed on the National Data Archive and is accessed by academics and used in research.

Family Spending is a separate report on the Living Costs and Food Survey published by the Office for National Statistics. It covers all forms of household expenditure but without as much detail on food and without quantities and nutrient content of food purchases.

Comparisons between ONS and Defra reports

Family Food uses LCFS data on food expenditure to estimate consumption and nutrient intake. It should be noted that in Family Food, food consumption and nutrient uptake is at person level.

Family Spending reports expenditure at household level, meaning that the figures cannot be directly compared to those presented in Family Food. The different approaches reflect the different analytical purposes of the two publications, with person level being appropriate to nutritional analysis.

National Statistics

Family Food conforms fully to National Statistics standards. The term 'National Statistics' is an accreditation quality mark that stands for a range of qualities such as relevance, integrity, quality, accessibility, value for money and freedom from political influence. More information is available from the [UK Statistics Authority](#).

Survey development

Updating and accuracy of nutrient composition profiles

The conversion from food purchases to nutrient content requires nutrient composition factors for each of the 'Family Food' food codes. Public Health England (PHE) maintains a databank of nutrient compositions for a wide range of specific foods that are made available to Defra. These are updated as and when new data becomes available from PHE's analytical programme or from manufacturers and retailers. In 2012, revised factors were applied to some fruit, vegetable and confectionery codes. More detail is in the methodology paper '[Reference nutrient Intakes](#)'.

Accuracy of reporting and coding

Survey participants record their food and drink purchases in a two week diary. They are able to attach till receipts or to write in diary entries to cover amount spent and quantity purchased for each individual item. In some cases, there is insufficient detail recorded on the diary to identify the correct food code, or quantities are not properly recorded. Whilst every effort is made by the survey team to correct these during household visits it is sometimes necessary to tolerate this in order to maintain goodwill and high response rates.

To deal with quantity omissions on the diary, in 2012 the validation team started to collect proxy quantities by searching on-line supermarket websites and matching the item description and expenditure. If there is insufficient information to allocate a food item to a specific code, default codes may sometimes be used. Default codes are based upon the most commonly occurring product within a category; e.g. a diary entry of 'sausages' gives insufficient information to distinguish between pork/beef/other meat, so in this case it would be allocated to the 'pork' food code by way of default as the most commonly bought variety.

Checks on portion sizes to improve the quality of eating out estimates

Quantities are not recorded against eating out foods on the Family Food diaries because purchases are often in the form of meals and quantities are unknown. In the eating out section of the Family Food diary the survey participant records an itemised list of meal components. Defra uses a set of standard portion sizes for eating out food codes. These were reviewed in 2012, and no significant changes were made.

The Family Food Committee

Defra are extremely grateful to the Family Food Committee whose advice on the conduct of the Family Food Module and quality assurance of the annual report is invaluable. The committee are selected from the devolved administrations, Department of Health, Office for National Statistics, nutrition professionals and the food industry. The committee members are not paid a fee for their time spent advising Defra on the survey report.

David Lee (Chair)
Department for Environment, Food and Rural Affairs

Dr Laura Keyse
Office for National Statistics

Dr Giles Horsfield
Office for National Statistics

Kirsty Pavey
Food and Drink Federation

Gaynor Bussell
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Professor Judith Buttriss
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Professor Andrew Chesher
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Mr Richard Murray
Scottish Government

Dermot Donnelly
Northern Ireland Statistics and Research Agency

Family Food production team

Andrew Scaife, David Lee, Janet Carr, Julie Rumsey, Karen Stark

We would welcome feedback and suggestions from users of Family Food and its datasets. Contact the team at familyfood@defra.gsi.gov.uk.

Data downloads

Datasets in Excel format are available to download from the [Defra website](#).

The Family Food datasets are Excel spreadsheets containing data for years 2001/02 onwards. The UK household consumption and the UK household expenditure spreadsheets show data for 1974 onwards. Historical estimates going back to 1940 in some cases are available from [The National Archives](#).

Information is available at United Kingdom level for both household and eating out on:

- Purchases,
- expenditure and
- nutrient intakes

There is a further breakdown by:

- UK regions
 - Scotland, Wales, Northern Ireland, English NUTS 1 Region
 - Rural and Urban: England, Wales and Scotland
- Gross income quintile
- Equivalised income decile
- Household composition
- Age group of household reference person
- Age at which household reference person ceased full-time education
- Ethnic origin of household reference person
- Socio-economic classification of household reference person
- Economic activity of household reference person

Economic and Social Data Service

Survey data for the Expenditure and Food Survey (2000/01 to 2007) and subsequently the Living Costs and Food Survey (2008 to 2012) is available to download via the Data Archive on the Economic and Social Data Service website:

<http://www.esds.ac.uk/findingData/efsTitles.asp>

National Food Survey data from 1974 to 2000 is available from:

<http://www.esds.ac.uk/findingData/nfsTitles.asp>

Glossary

Nutrients

Committee on Medical Aspects of Food and Nutrition Policy (COMA)

A UK-wide expert scientific advisory committee set up to advise UK health Departments on dietary reference values for population intakes of energy and a range of nutrients. It was disbanded in 2000 and replaced by SACN.

Dietary Reference Values (DRV)

Department of Health, 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom', HMSO 1991. SACN published new DRVs for energy intake in April 2012.

Estimated Average Requirement (EAR)

Estimates of energy intake required to meet the average needs of the group to which they apply. About half the people in the group will usually need more energy than EAR and half the people will need less.

Fibre

Non-starch polysaccharides as determined by the Englyst method.

Macronutrients

Major nutrients that are consumed in largest amounts and provide bulk energy – protein, carbohydrate and fat.

Micronutrients

A substance needed only in small amounts for normal body function; e.g. vitamins and minerals.

Non-milk extrinsic sugar (NMES)

These sugars are more likely to damage teeth than other types of sugar. Products that contain this sugar include fruit juices and honey and 'added sugars', which comprise recipe and table sugars. NMES are found in a wide range of foods, the main sources in the diet being table sugar, confectionery, soft drinks and fruit juices and biscuits and cakes.

Reference Nutrient Intakes (RNI)

Reference Nutrient Intake values for protein, vitamins and minerals are set for each age/sex group at a level of intake considered likely to be sufficient to meet the requirements of 97.5% of the group.

Scientific Advisory Committee on Nutrition (SACN)

A UK-wide advisory committee set up to replace COMA in 2001. It advises UK health Departments.

Sodium

Sodium Chloride in the diet is more commonly known as salt. It is the sodium in salt that can be bad for health. Too high an intake of sodium can raise blood pressure, which triples the risk of developing heart disease or having a stroke at any age. Salt is approximately equal to sodium multiplied by 2.5.

General and statistical terms

Consumer Price Index (CPI)

The Consumer Price Index is a statistical measure of a weighted average of prices of a specified set of goods and services. It is used as an indicator of inflation, which is the percentage change in the index compared with the same month one year previously.

Equivalised income

The income a household needs to attain a given standard of living will depend on its size and composition. Equivalisation means adjusting a household's income for size and composition so that the incomes of all households are on a comparable basis. To calculate equivalised income using the 'Modified OECD' equivalence scale, each household member is given an equivalence value. This scale, first proposed by Haagenars et al. (1994), assigns a value of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child. Additional household members are assigned smaller values to reflect the economies of scale achieved when people live together. Economies of scale arise when households share resources such as water and electricity, which reduces the living costs per person.

Household Reference Person (HRP)

The HRP is the person who: owns the household accommodation, or is legally responsible for the rent of the accommodation, or has the household accommodation by virtue of their employment or personal relationship to the owner who is not a member of the household. If more than one person meets these criteria the HRP will be the one with the higher income. If the incomes are the same then the eldest is chosen.

Main effect regression

A statistical technique that does not allow the effect of an explanatory variable (e.g. age) to change when another explanatory variable (e.g. region) changes.

Multiple regression modelling

A statistical technique that predicts values of one variable (e.g. intake of fat) on the basis of two or more other variables (e.g. age, region and income).

Trading Down

Trading down is used in this Family Food report to mean switching to purchases of cheaper products within a food grouping. Cheaper is equivalent to lower quality in some way. The reduction in quality could be in any quality attribute of the product such as packaging, brand name, provenance, nutrient content or taste. Trading down into a completely different type of food is not captured.