Family Food 2014

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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 £108bn to the economy and employs 3.9 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.

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, 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.

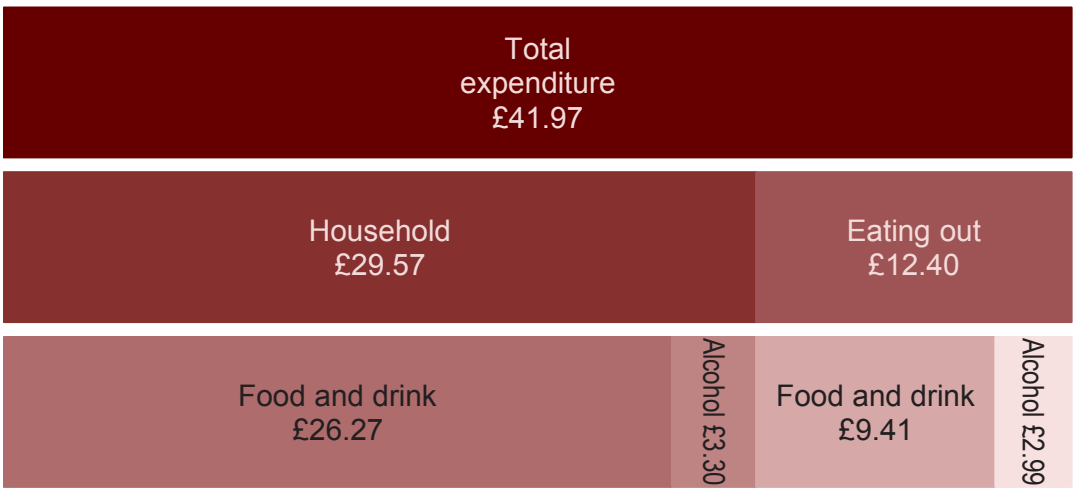
Executive Summary

Family Food 2014 presents the results from the 2014 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 2014 average household expenditure on all food and drink was £41.97 per person per week (see chart). Taking inflation into account, this was 2.8 per cent less than 2013 and 3.5 per cent less than 2011.

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



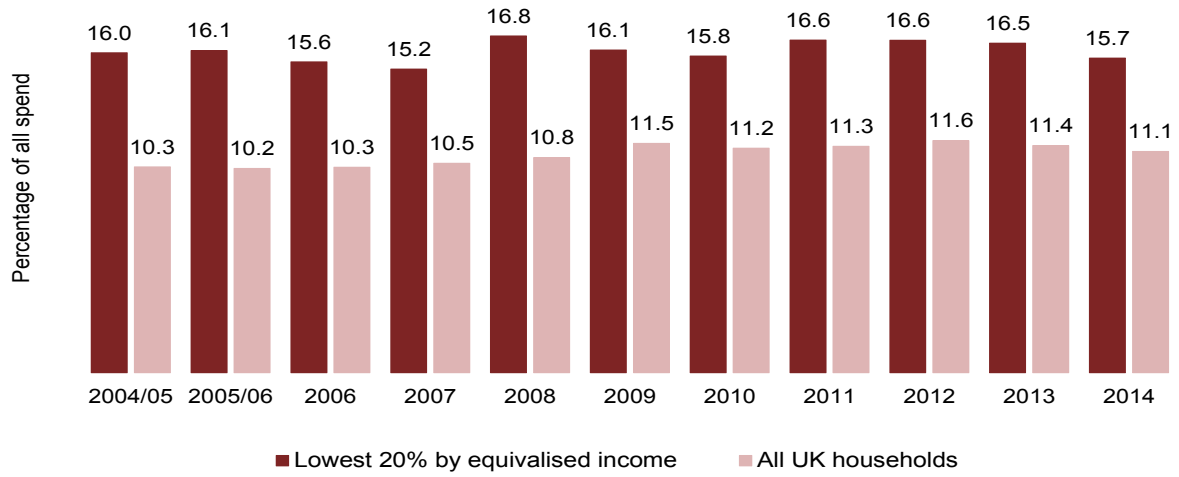
- In the UK an average 11.1 per cent of all household spend went on food in 2014. For the lowest 20 per cent of households by equivalised income it was 15.7 per cent.
- Purchases of various household foods are on clear short term downward trends since 2011, including carcase meat and meat products, potatoes, fruit and bread. Eggs are on a short term upwards trend since 2011.
- The amount of food eaten out has been declining since 2001, with the largest decreases since 2011 in fresh and processed fruit, biscuits and chocolate, yoghurt and fromage frais, confectionary and alcoholic drinks.
- Total energy intake from all food and drink is on a long term downward trend.
- All vitamin and mineral intakes except potassium reached at least 100 per cent of the recommended minimum Reference Nutrient Intake, where one is set.
- The average intake of sodium is on a downward trend but was still 76 per cent above the recommended maximum Reference Nutrient Intake of 2.4 grams per day in 2014.

Expenditure

The report focuses mostly on trends since 2007, when food prices peaked.

- In real terms, between 2011 and 2014 household spending on food and drink fell by 3.0 per cent and eating out expenditure by 4.5 per cent. Household spending on alcoholic drinks fell by 1.6 per cent over the same period, whilst that bought for consumption outside the home fell by 13 per cent.
- The percentage of spend on food continues to be highest for low income households, at 15.7 per cent in 2014. 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



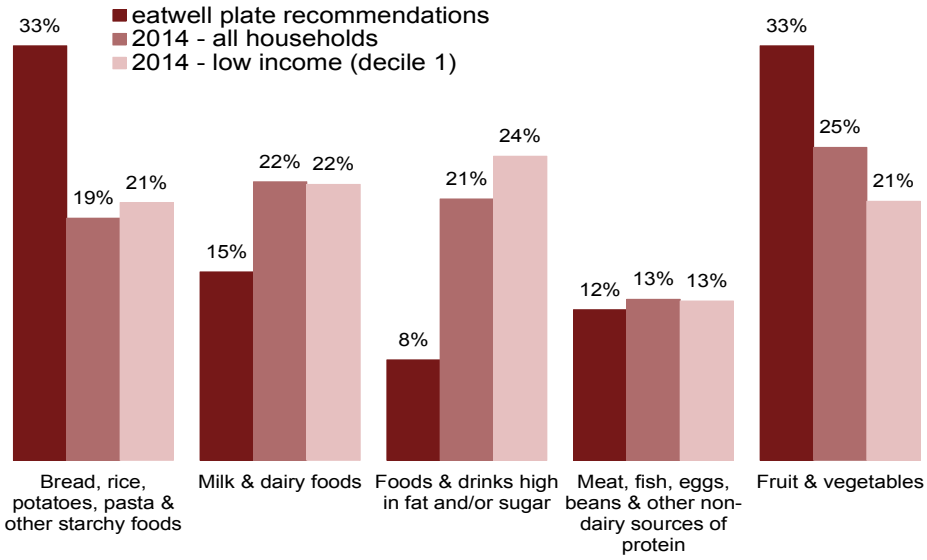
- On average, UK households purchased 7.5 per cent less food in 2014 than in 2007 while spending 18 per cent more. They saved 5.5 per cent on their unit prices by 'trading down' to cheaper products of the same type.
- Households in income decile 1 (lowest income group) spent 23 per cent more on food in 2014 than in 2007 and purchased 8.5 per cent less. Trading down saved these households 1.5 per cent.

Purchases

The report focuses mainly on trends over the period 2011-2014.

- 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.
- Purchases of soft drinks (not low calorie) are on a downward trend since 2011 and fell by 19 per cent between 2011 and 2014. This was mirrored by an upward trend in low calorie soft drinks' with household purchases 14 per cent higher in the same period.

Eatwell plate comparison for low income and all households



- Purchases of raw carcase meat have been on a downward trend since 2011, but rose 7.2 percent in 2014. Beef, which accounts for around half of raw carcase meat purchases, showed a downward trend, declining by 9.5 per cent on 2011, but increased 5.0% on 2013. Purchases of pork were 2.3 per cent down on 2011, and 12 per cent down on 2013.

- Potato purchases continued their long term downward trend, with a 10.1 per cent reduction since 2011. Purchases are 18 per cent lower than ten years ago. 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.

- While overall purchases of fruit and vegetables reduced between 2011 and 2014, consumers spent 4.4 per cent more on fresh and processed vegetables and 7.8 per cent more on fresh and processed fruit.

Dietary Trends

The report focuses mainly on trends over the period 2011-2014.

- Total energy intake per person was an average of 2142 kcal per person per day in 2014, 4.6 per cent lower than in 2011. This is a statistically significant downward trend that confirms the longer term downward trend already apparent since the mid 1960s.

- Energy intake from eating out was 226 kcal per person per day in 2014, 4.2 per cent lower than in 2011. Average energy intake from eating out accounted for 11 per cent of total energy intake.

- Over the three years from 2011 to 2014, intake of unsaturated fatty acids showed a downward trend. Monounsaturated fatty acids declined by 1.7 per cent, while intakes of polyunsaturates fell by 3.8 per cent.

- Fibre intake in 2014 has declined on 2013, at an average of 14.2 grams per person per day. This was a 7.1 per cent fall from 2010.

- Alcohol intake rose 0.1 per cent in 2014 to 8.9 grams per person per day. Eating out purchases accounted for 19 per cent of total alcohol intake in 2014. In 2014, eating out intakes of alcohol were 24 per cent lower than in 2010 and up until 2014 showed a significant downward trend.

Chapter 1 Expenditure

1.1 Overview

This chapter provides estimates of household and eating out expenditure on food in 2014, alongside analyses of changes in household shopping behaviour in response to food price inflation in recent years.

Using comparisons between low income households and all households it is possible 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 this group is used here as a proxy. In the context of this chapter, low income households are identified as those within the lowest ten or twenty per cent of households by equivalised income, a measure of household income that accounts for differences in household size and composition.

- In 2014 the amount that an average household spent on all food and drink, including alcoholic drinks and food eaten out was £41.97 per person per week. When inflation is taken into account, the amount spent was 2.8 per cent less than 2013 and 3.5 per cent less than 2011. Household food and non-alcoholic drink purchases formed the largest share at £26.27 per person per week.
- In 2014, the percentage of spend on food and non-alcoholic drinks for the average UK household was 11.1 per cent, a slight fall on the year before.
- The percentage of spend on food continues to be highest for households with the lowest 20 per cent of income, at 15.7 per cent in 2014. Food is the largest item of household expenditure for low income households, after housing, fuel and power costs.
- On average households 'traded down' to cheaper products to save 6 per cent on the unit prices paid for food between 2007 and 2014. The lowest income households traded down to a much lesser extent.
- The average household spent 18 per cent more on food in 2014 than in 2007, when prices were at their lowest. Households in income decile 1 spent 23 per cent more.

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 spreadsheet 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 spending on food

The average weekly expenditure in actual prices (not adjusted for inflation) on all household food and drinks in 2014 was £29.57 per person, a decrease of 1.0 per cent on 2013. Total expenditure on household food and non-alcoholic drink fell by 1.3 per cent in 2014 to £26.27 and was 0.9 per cent lower than in 2011. Table 1.1 shows significant upward trends in household expenditure between 2011 and 2014 in most categories, notably :

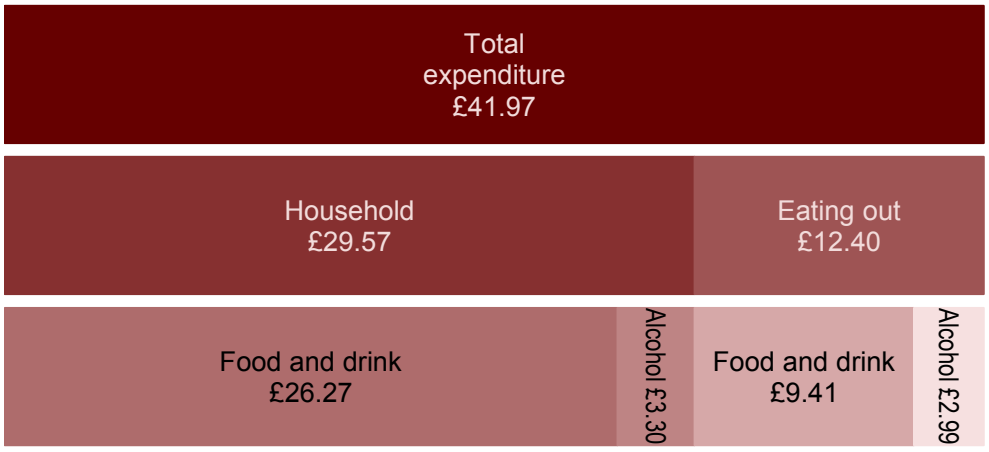
- Beverages - spending increased by 10.2 per cent.
- Carcase meat - spending increased by 9.9 per cent.
- Confectionery - spending increased by 9.2 per cent.

- Fruit - spending increased 7.8 per cent.
- Fish - spending increased by 7.4 per cent.

The only statistically significant 4 year downward trend was on the amount spent on liquid whole milk, down by 28 per cent since 2011 and 10 per cent on 2013. The effects of food price rises on purchasing levels are considered later on in this chapter.

In terms of money spent on eating out, it was 3.9 per cent higher in 2014 than in 2011 at £12.40 per person per week for all food and alcoholic drinks. Spending on food and non-alcoholic drinks eaten out was £9.41 in 2014. Spending on alcoholic drinks was £2.99 per person per week in 2014, 4.9 per cent lower than in 2011. See Table 1.1.

Chart 1.1: UK average expenditure on food and drink, per person per week, 2014



1.4 Trends in spending in real terms

Table 1.2 shows expenditure in real terms, with the values adjusted to remove the effects of inflation. The figures are derived by deflating expenditure at current prices by the all items Retail Price Index. This index is used because the Consumer Price Index (which is now used for national inflation statistics) does not go back as far as 1975. In 1975, households spent the equivalent of £29.52 per person per week on household food and drink. However this is not directly comparable with the 2014 figure of £26.27 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 2.4 per cent between 2013 and 2014 and by 8.9 per cent between 2011 and 2014. Removing this overall rise in prices from the changes in expenditure on food and drink shows how expenditure in real terms changed since 2011.

Since 2011, household spending on food and drink in real terms fell by 3.0 per cent and eating out expenditure by 4.5 per cent. Spending on alcoholic drinks for household consumption fell by 1.6 per cent over the same period, whilst that bought for consumption outside the home fell by 13 per cent. Later in the chapter the effects of food price rises on household spending is examined in more detail.

Table 1.1: UK expenditure on food and drink, 2011-2014

	2011	2012	2013	2014	RSE[a]	% change since 2013	% change since 2011	sig[b]
Number of households in sample	5692	5596	5144	5134				
Number of persons in sample	13448	13196	12144	12150				
Food price inflation	5.9	3.3	3.7					
Household expenditure	*Pence per person per week*							
Milk and cream	187	188	187	182	✓✓✓	-2.6	-2.6	
Liquid whole milk	22	18	18	16	✓✓	-10.3	-28.2	yes
Cheese	80	81	85	81	✓✓✓	-5.1	+0.4	yes
Carcase meat	129	136	136	141	✓✓✓	+3.6	+9.9	
Non-carcase meat and meat products	449	471	484	482	✓✓✓	-0.5	+7.3	yes
Fish	120	124	129	129	✓✓✓	+0.2	+7.4	yes
Eggs	28	30	31	30	✓✓✓	-4.5	+6.8	yes
Fats and oils	53	55	55	52	✓✓✓	-5.5	-2.7	yes
Butter	19	20	20	20	✓✓	-1.1	+9.2	yes
Sugar and preserves	21	23	23	21	✓✓	-7.6	-1.6	
Potatoes (fresh and processed)	116	121	129	123	✓✓✓	-4.6	+6.1	yes
Fruit and vegetables excluding potatoes	442	460	476	469	✓✓✓	-1.4	+6.1	yes
Vegetables excluding potatoes	227	236	245	237	✓✓✓	-3.3	+4.4	yes
Fruit	215	224	230	232	✓✓✓	+0.6	+7.8	yes
Fresh apples	22	24	25	24	✓✓✓	-5.3	+8.2	yes
Pure fruit juices	37	37	37	32	✓✓	-14.3	-15.1	yes
Cereals	474	497	506	497	✓✓✓	-1.8	+4.9	yes
Bread	119	123	127	117	✓✓✓	-7.9	-1.4	yes
Beverages	51	56	54	56	✓✓	+2.6	+10.2	yes
Soft drinks	93	96	100	95	✓✓✓	-4.6	+2.8	yes
Confectionery	101	102	104	110	✓✓✓	+5.4	+9.2	yes
Alcoholic drinks	308	330	324	330	✓✓	+1.7	+7.2	
Beers	19	21	20	19	✓	-3.4	-1.0	
Lagers and continental beers	48	49	51	50	✓✓	-3.2	+4.1	
All household food and non-alcoholic drink	2492	2598	2662	2627	✓✓✓	-1.3	+5.4	yes
All household food and drink	2799	2929	2986	2957	✓✓✓	-1.0	+5.6	yes
Eating out expenditure								
Total expenditure on alcoholic drink eaten out	314	314	302	299	✓✓	-1.1	-4.9	
Total expenditure on food and drink eaten out (exc alc drks)	879	895	929	941	✓✓✓	+1.3	+7.1	yes
Total expenditure on food and drink eaten out	1193	1209	1231	1240	✓✓✓	+0.7	+3.9	
Expenditure on all food and drink	3993	4137	4218	4197	✓✓✓	-0.5	+5.1	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).

Context: Food Prices

Food prices rose sharply during the economic crash in 2008, and in subsequent years, food price inflation was generally higher than overall inflation. Food prices are driven by a number of factors, but international commodity and oil prices and exchange rates are significant ones.

In 2014 the food price inflation rate (as measured by the Consumer Price Index) fell below overall inflation, and food prices actually started to fall as inflation fell below 0% for the first time since 2006. This trend has continued since then (see chart 1.2).

In this chapter there are analyses of households' responses to changes in food prices, including 'trading down' to cheaper products of the same type, and buying less. Family Food estimates generally show trends over the long term and short term spikes or depressions are smoothed out in the annual results. If the current short term picture with prices continues, as the sharp increases from 2007 did, then we can expect to see this reflected in shopping behaviour in future years.

Table 1.2: UK expenditure on food and drink at constant 2014 prices

	1975 [a] [c]	1985 [a] [c]	1995 [a] [b]	2009	2010	2011	2012	2013	2014	% change since 2013	% change since 2011
Retail price index (1975 = 100)	100	277	436	625	654	688	707	732	749	2.4	8.9
							£ per person per week				
Household food and drink			30.93	31.31	30.85	29.77	30.33	29.86	28.88	-3.3	-3.0
Food and drink eaten out			9.78 [d]	13.27	13.04	12.69	12.52	12.31	12.12	-1.6	-4.5
All food and drink			40.72	44.58	43.89	42.46	42.85	42.18	41.00	-2.8	-3.5
Household food and drink exc. alcohol	29.52	26.19	27.92	27.93	27.41	26.50	26.91	26.62	25.66	-3.6	-3.2
Food and drink eaten out exc. alcohol			7.23 [d]	9.67	9.55	9.35	9.27	9.29	9.19	-1.1	-1.6
All food and drink exc. alcohol			35.15	37.59	36.96	35.85	36.18	35.92	34.86	-2.9	-2.8
% eaten out			21%	26%	26%	26%	26%	26%	26%		1.2
Household alcoholic drink			3.01	3.38	3.44	3.27	3.42	3.24	3.22	-0.7	-1.6
Alcoholic drink eaten out			2.55 [d]	3.60	3.49	3.34	3.25	3.02	2.92	-3.4	-12.6
All alcoholic drinks			5.56	6.98	6.93	6.61	6.67	6.26	6.14	-2.0	-7.2
% of alcoholic drinks eaten out			46%	52%	50%	51%	49%	48%	48%		

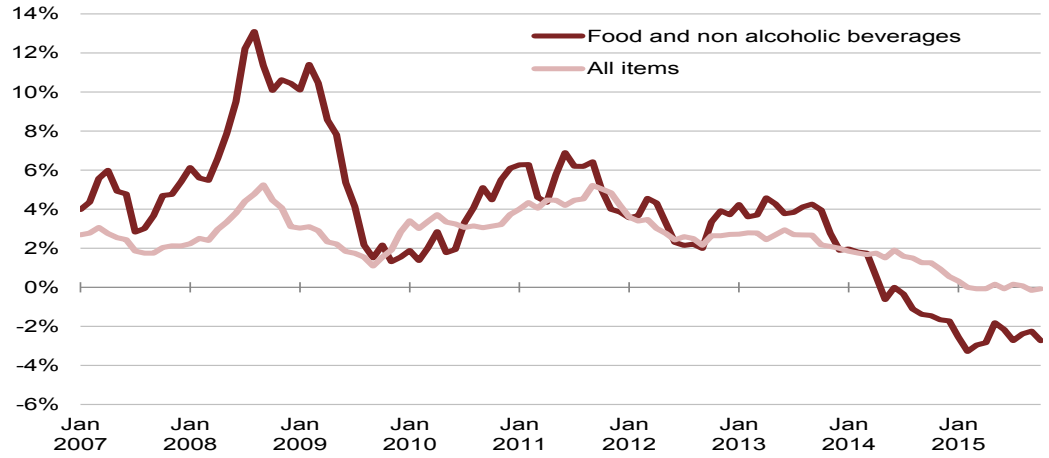
(a) Great Britain only.

(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.

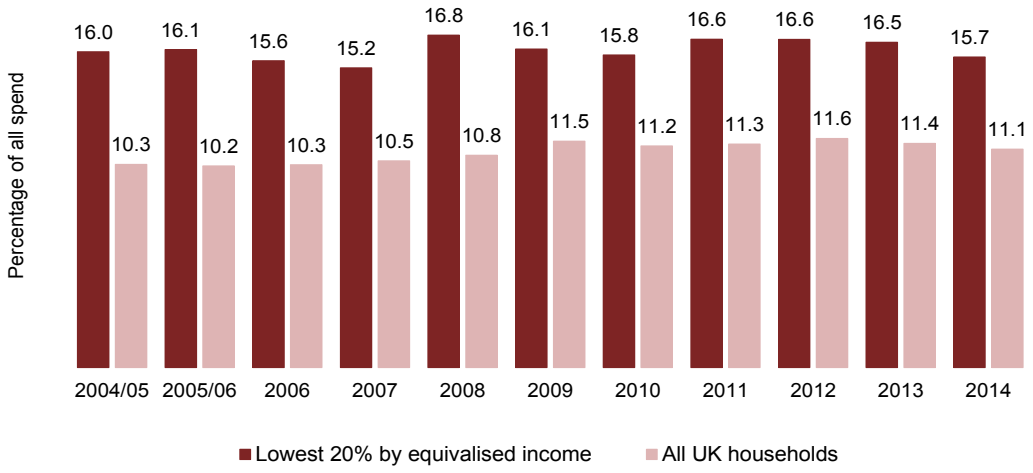
Chart 1.2: CPI 12-month inflation rates for all items and food and drink



1.5 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 over time, 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 1.3: Percentage of spend on food and non-alcoholic drinks



Source: Living Costs and Food Survey, Family Spending table 3.2e, ONS.

In the UK, an average 11.1 per cent of household spend went on food in 2014, while for the lowest 20 per cent of households by equivalised income it was higher at 15.7 per cent. Engel's law is an observation in economics stating that as income rises the proportion of income spent on food falls, even if actual expenditure on food rises. Although these estimates are of proportion of expenditure not income, they are consistent with that observation.

For all households in the UK the percentage of spend on food was 0.6 percentage points higher than the 2007 level, whilst for the lowest 20 per cent by equivalised income it was 0.5 percentage points higher. 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 2014 than in 2007. The analysis below (Table 1.4) shows that the lowest ten per cent of households by income purchased 8.5 per cent less food by weight.

1.6 Effects of food price rises

Food prices from 2007 to 2014

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 until early 2014. Since then food prices have fallen steadily in real terms, although they remain higher than in 2007. Table 1.3 shows average food prices in 2014 for key food groups. On average, food prices overall fell by 0.5 per cent in 2014 below the all items rate of inflation as measured by the Consumer Price Index.

Table 1.3: Food price evolution, 2007=100

	2007	2008	2009	2010	2011	2012	2013	2014	% change since 2007	% change since 2011	% change since 2013
All Items Consumer Price Index	100	104	106	109	114	117	120	122	+22.2	+7.0	+1.5
CPI food items	100	110	116	120	126	130	135	134	+34.2	+6.8	-0.5
Bread	100	115	119	119	125	125	131	126	+25.9	+0.7	-3.6
Cereals	100	113	121	123	130	136	141	142	+42.1	+9.1	+1.0
Biscuits and cakes	100	111	115	120	133	139	143	145	+45.4	+9.1	+1.7
Beef	100	115	124	124	129	143	151	155	+55.1	+20.5	+2.7
Lamb	100	109	122	128	155	158	153	155	+54.8	-0.1	+1.1
Pork	100	115	124	128	135	145	152	150	+50.2	+11.2	-1.2
Bacon	100	109	115	113	116	116	123	122	+22.2	+5.7	-0.4
Poultry	100	113	116	116	122	123	128	128	+27.7	+4.5	-0.4
Fish	100	107	113	119	131	136	141	145	+45.4	+11.4	+2.9
Butter	100	123	121	138	159	164	167	177	+76.6	+10.8	+5.6
Cheese	100	115	120	122	129	133	134	139	+39.4	+8.1	+4.0
Eggs	100	127	131	136	137	135	133	130	+29.8	-5.5	-2.7
Milk	100	114	122	121	122	120	122	121	+20.9	-0.7	-1.3
Tea	100	106	118	133	138	139	142	138	+37.6	-0.4	-2.7
Coffee and hot drinks	100	104	112	113	128	136	137	136	+36.5	+6.4	-0.2
Soft drinks	100	102	105	112	121	126	128	130	+30.0	+7.7	+1.4
Sugar and preserves	100	106	120	121	125	129	129	122	+22.0	-2.6	-5.6
Sweets and chocolates	100	107	115	122	132	138	143	146	+46.2	+11.2	+2.1
Potatoes	100	111	116	118	125	130	150	144	+44.4	+15.8	-3.9
Vegetables	100	108	115	118	121	124	127	120	+20.2	-0.6	-5.3
Fruit	100	107	112	121	126	129	139	140	+39.6	+11.1	+0.5
of which fresh fruit	100	106	113	114	119	123	126	126	+25.6	+5.5	-0.0
Alcoholic drinks	100	103	108	111	118	121	125	126	+25.6	+6.8	+0.3

Trading Down, Buying Less and Spending More

Households can react in many ways to food price increases – they may simply spend more, or buy less of a type of product. They may also 'trade down' by switching to purchases of cheaper products within a food grouping (see glossary for more detail). Family Food provides evidence based estimates of changes in shopping behaviour in response to higher prices.

For foods within a given food category, price changes are measured by the Consumer Price Index. Family Food 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 1.4 shows how consumers have reacted to price rises between 2007 and 2014 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.

For example, for butter there was a change in expenditure of +50 per cent for all households. Quantity of butter purchases decreased by 2.4 per cent and all households managed to reduce their unit price paid (trading down) by 13 per cent. Thus the dominant response to the 43 per cent price rise in butter between 2007 and 2014 was to spend more money on butter purchases.

Table 1.4: Consumers' response to food price rises between 2007 and 2014

Percentage changes between 2007 and 2014	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	+22	-7.5	-8.5	18	23	-5.5	-1.5
Bread	+9	-18	-20	8.2	12	4.7	11
Cereals	+26	4.5	5.8	27	38	-15	-8.3
Biscuits & cakes	+31	-4.0	-7.7	25	22	-10	-9.3
Beef	+35	-20	-18	24	43	-0.4	12
Lamb	+42	-32	-32	-2.7	1.7	-12	-3.8
Pork	+30	5.4	17	18	45	-25	-18
Bacon	+12	-2.1	0.7	15	22	-3.7	-1.0
Poultry	+13	-4.2	-6.3	30	48	6.2	24
Fish	+36	-13	3.8	12	11	-11	-14
Butter	+43	-2.4	-20	50	29	-13	-9.1
Cheese	+21	-6.6	-0.4	19	26	-8.4	-9.3
Eggs	+2	17	24	33	51	-10	-7.9
Milk	+6	-6.8	-16	6.3	0.6	-6.4	-6.4
Tea	+30	-17	6.1	5.5	43	-7.5	-1.9
Coffee & hot drinks	+31	-7.1	-2.6	29	35	1.7	1.3
Soft Drinks	+27	-8.3	-10	20	28	1.1	9.7
Sugar & preserves	+16	-13	-20	22	8.7	16	11
Sweets & chocolates	+37	1.2	14	32	52	-11	-9.0
Potatoes	+31	-20	-20	0.1	5.9	-14	-7.2
Vegetables	+11	-5.2	-6.6	13	17	-1.1	3.7
Fruit	+31	-14	-11	15	17	-4.4	-5.8
of which fresh fruit	+18	-10	-8.0	16	21	2.5	3.6
Alcoholic drinks	+22	-13	-32	17	-0.3	6.7	17

Table 1.5: Main consumer reaction to food prices between 2007 and 2014

	Main consumer reaction - 2014				
	Trading down	Buying more	Buying less	Spending less	Spending more
All households	Cereals (-15%)	Cereals	Bread	Lamb	Cereals
Trading down (-5.5%)	Lamb (-11%)	Pork	Beef		Biscuits and cakes
Buying less (-7.5%)	Pork (-25%)	Eggs	Lamb		Poultry
Spending more (+18%)	Fish (-10%)	Sweets and chocolates	Tea		Butter
	Butter (-13%)		Sugar and preserves		Eggs
	Sweets & chocolates (-11%)		Potatoes		Coffee & hot drinks
	Potatoes (-14%)		Fruit		Sweets & chocolates

	Trading down	Buying more	Buying less	Spending less	Spending more
Income decile 1	Cereals (-8%)	Cereals	Bread	Alcoholic drinks	Sweets & chocolates
Trading down (-1.5%)	Biscuits & cakes (-9%)	Pork	Biscuits & cakes		Eggs
Buying less (-8.5%)	Lamb (-4%)	Fish	Beef		Poultry
Spending more (+22%)	Pork (-18%)	Eggs	Lamb		Pork
	Fish (-14%)	Tea	Poultry		Tea
	Butter (-9%)	Sweets & chocolates	Butter		Beef
	Cheese (-9%)		Milk		Cereals
	Eggs (-8%)		Soft drinks		Coffee & hot drinks
	Milk (-6%)		Sugar & preserves		Butter
	Sweets & chocolates (-9%)		Potatoes		
	Potatoes (-7%)		Fruit		
	Fruit (-6%)		Alcoholic drinks		

(a) a positive value indicates trading up

Tables 1.4 and 1.5 show that on average UK households purchased 7.5 per cent less food in 2014 than in 2007 while spending 18 per cent more. Households in income decile 1 (lowest income group) spent 22 per cent more on food in 2014 than in 2007 and purchased 8.5 per cent less.

Households saved an average of 5.5 per cent on their unit price paid by trading down to cheaper products. Trading down saved the lowest income households 1.5 per cent on their unit price paid. It is likely that this figure is lower than for all households because it was not possible to purchase items within the same category at a lower unit price. The trading down analysis does not capture instances where expenditure is switched to a completely different food type.

- On average UK households spent 24 per cent more for 20 per cent less quantitiy of beef between 2007 and 2014. In the same period households in income decile 1 (lowest income group) spent 43 per cent more buying 18 per cent more beef.
- Since 2007 UK households have bought noticebly less beef, lamb, fish, fruit, potatoes and alcoholic drinks but more eggs, pork and cereals.
- Since 2007 households in decile 1 (lowest income group) have bought less lamb, beef, butter, bread, sugar and preserves and alcoholic drinks but more pork, eggs and sweets and chocolates.
- There is an element of trading up with purchases of alcoholic drinks, with expenditure either level or increased, but quantities reduced, a feature more marked in the lowest income group households.

Chapter 2 Purchases

2.1 Overview

Comparisons between 2011 and 2014, 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. Detailed long term time series are available for download.

Purchases of various household foods are on clear short term downward trends since 2011, including carcase meat and meat products, potatoes, fruit and bread. Eggs are on a short term upwards trend since 2011.

2.2 Household purchases

Table 2.1 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 Methodology Papers.

Fruit and vegetables

Household purchases of fresh and processed vegetables (excluding potatoes) have shown no clear trend since 2011, but decreased by 1.9 per cent on 2013 to 1,080g per person per week in 2014, mainly reflecting a decrease in 'processed' vegetables. Purchases have generally been declining since 2005, mainly due to a decrease in purchases of fresh vegetables, which account for roughly 70 per cent of all vegetable purchases.

Potato purchases continued their long term downward trend, with a 10.1 per cent reduction since 2011. Purchases are 18 per cent lower than ten years ago. 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 (including fruit juice) show a similar profile to vegetables. Purchases are 17 per cent down from their peak in 2006 at 1,096g per person per week on average in 2014. Purchases are 4.7 per cent down on 2011. Fresh fruit accounts for two thirds of total fruit and fruit juice purchases. Fruit juices have showed a large decline, with purchases 20 per cent down on 2011, continuing a general decline that started in 2006.

While overall purchases of fruit and vegetables reduced between 2011 and 2014, consumers spent 4.4 per cent more on fresh and processed vegetables and 7.8 per cent more on fresh and processed fruit.

Chapter 3 analyses fruit and vegetable purchasing over time in terms of recommended daily consumption levels.

In 2014, 3.1 per cent of all the fresh fruit and vegetables entering the household came from free sources, mainly gardens and allotments. This percentage is subject to year on year fluctuations depending on growing conditions in the UK.

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 7.1 per cent lower in 2014 than in 2011, a change equivalent to 12 grams per person per week. Reduced and low fat spreads showed a downward trend between 2010 and 2013, but have slightly increased in 2014. Long term trends in estimates for margarine and spreads were affected by the reclassification of a popular product in 1994.

Butter purchases have been increasing steadily over the last ten years, and were 0.6 per cent higher than in 2011, at 40 grams per person per week. Oils accounted for one third of all fat purchases, with average weekly purchases of 52 mls.

Table 2.1: Quantities of household purchases of food and drink in the UK

		2011	2012	2013	2014	RSE[a]	% change since 2013	% change since 2011	trend since 2011 [b]
							grams per person per week unless otherwise stated		
Milk and cream	(ml)	1904	1901	1847	1849	✓✓✓	+0.1	-2.9	↘
Liquid whole milk (including welfare and school milk)	(ml)	355	297	285	263	✓✓	-7.8	-25.9	↘
Skimmed milks	(ml)	1151	1209	1152	1198	✓✓✓	+4.1	+4.1	
Yoghurt and fromage frais	(ml)	200	195	191	191	✓✓✓	-0.5	-4.6	
Cheese		118	114	118	111	✓✓✓	-6.3	-6.5	↘
Cheese, natural		108	104	107	100	✓✓✓	-6.5	-6.9	↘
Processed cheese		11	10	11	10	✓✓	-4.6	-2.0	
Carcase meat		204	196	182	195	✓✓✓	+7.2	-4.3	
Beef and veal		112	104	97	101	✓✓	+5.0	-9.5	↘
Mutton and lamb		37	36	35	37	✓	+7.0	+2	
Pork		56	55	51	57	✓✓	+11.5	+2.3	
Non-carcase meat and meat products		794	793	766	760	✓✓✓	-0.8	-4.3	↘
Bacon and ham (cooked or uncooked)		112	108	103	102	✓✓	-1.1	-8.7	↘
Poultry (cooked or uncooked)		247	251	241	240	✓	-0.0	-2.8	
Meat based ready meals and convenience meat products		157	164	164	163	✓✓✓	-0.9	+3.6	
Fish		147	144	146	144	✓✓✓	-1.2	-2.3	
White fish, fresh, chilled or frozen		17	21	19	19	✓	+1.9	+11.6	
Fish based ready meals and other fish products		54	52	54	49	☒	-9.5	-10.0	↘
Salmon, fresh, chilled or frozen		12	12	13	13	✓	+2.9	+12.6	
Eggs	(no.)	1.7	1.8	1.8	1.9	✓✓✓	+1.0	+7.8	↗
Fats		170	178	171	158	✓✓✓	-7.6	-7.1	↘
Butter		40	41	42	40	✓✓	-3.7	+0.6	
Vegeatble and salad oil		54	61	58	52	✓✓	-11.2	-4.7	↘
Reduced and low fat spread		46	43	38	39	✓	+1.6	-15.5	↘
Sugar and preserves		126	124	123	109	✓✓	-11.6	-14.1	↘
Potatoes (fresh and processed)		746	724	682	671	✓✓✓	-1.6	-10.1	↘
Vegetables		1090	1086	1102	1080	✓✓✓	-1.9	-0.9	
Fresh green vegetables		189	183	179	181	✓✓✓	+1.6	-4.1	
Other fresh vegetables		550	551	569	564	✓✓✓	-0.8	+2.5	
Processed vegetables [d]		351	352	354	334	✓✓✓	-5.6	-4.6	
Fruit		1150	1107	1114	1096	✓✓✓	-1.7	-4.7	↘
Fresh fruit		764	744	744	766	✓✓✓	+2.9	+0.2	
Processed fruit and fruit products		385	362	370	330	✓✓✓	-10.9	-14.4	↘
Pure fruit juices	(ml)	307	282	288	247	✓✓	-14.4	-19.6	↘
Bread		621	615	607	555	✓✓✓	-8.5	-10.6	↘
White bread		259	266	247	222	✓✓✓	-10.4	-14.6	↘
Brown and wholemeal bread		175	158	156	150	✓✓✓	-3.8	-14.3	↘
Vienna and french bread		27	28	27	26	✓✓	-6.2	-6.6	
Cakes, buns and pastries		151	149	150	147	✓✓✓	-2.0	-2.6	
Biscuits and crispbreads		164	160	165	162	✓✓✓	-1.4	-1.2	
Other cereals and cereal products		547	542	549	560	✓✓✓	+2.0	+2.3	
Beverages		53	53	52	52	✓✓✓	-0.4	-1.9	
Soft drinks [c]	(ml)	1630	1633	1664	1546	✓✓✓	-7.1	-5.2	
Not low calorie	(ml)	954	884	878	774	✓	-11.9	-18.9	↘
Low calorie	(ml)	676	749	786	772	✓✓	-2	+14.3	
Confectionery		134	126	128	130	✓✓✓	+1.6	-2.7	
Alcoholic drinks	(ml)	728	700	694	675	✓✓	-2.7	-7.3	

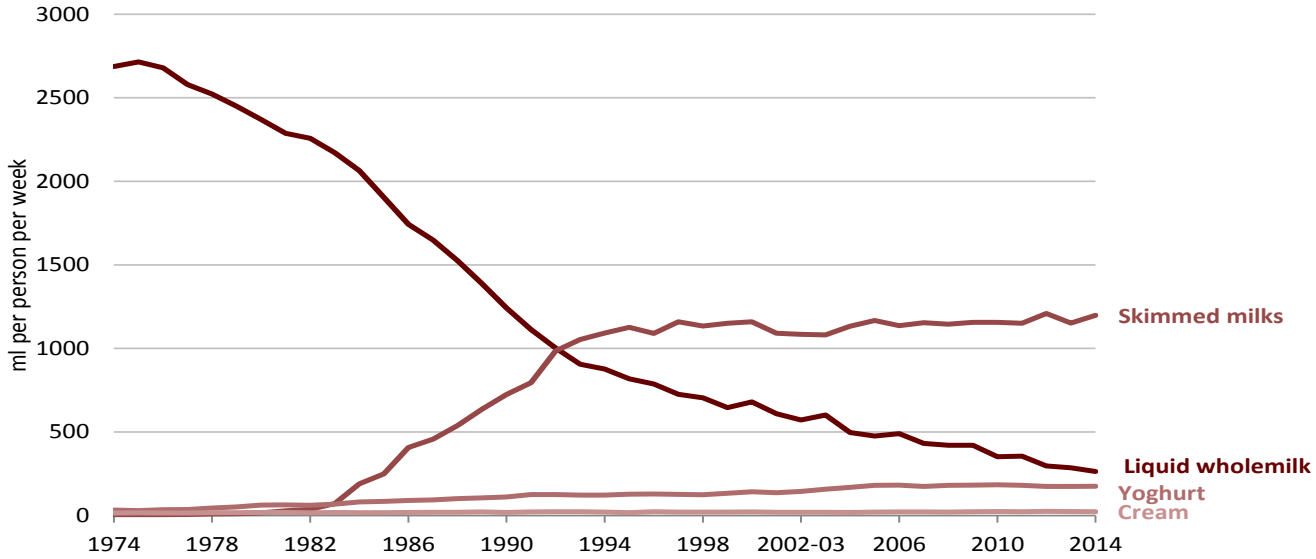
(a) Relative Standard Error: 3 ticks: < 2.5%, 2 ticks: 2.5% - 5%, 1 tick: 5% - 10%, no ticks: 10% - 20%, cross: >20%, - not available.

(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.

Chart 2.1: UK purchases of milk and milk products, 1974 – 2014



Milk and cheese

Whole milk purchases were 26 per cent lower in 2014 than in 2011, equivalent to a reduction of 92 mls per person per week. Over the same period, purchases of skimmed milks rose 4.1 per cent. Household purchases of milk have been falling for many years, 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.

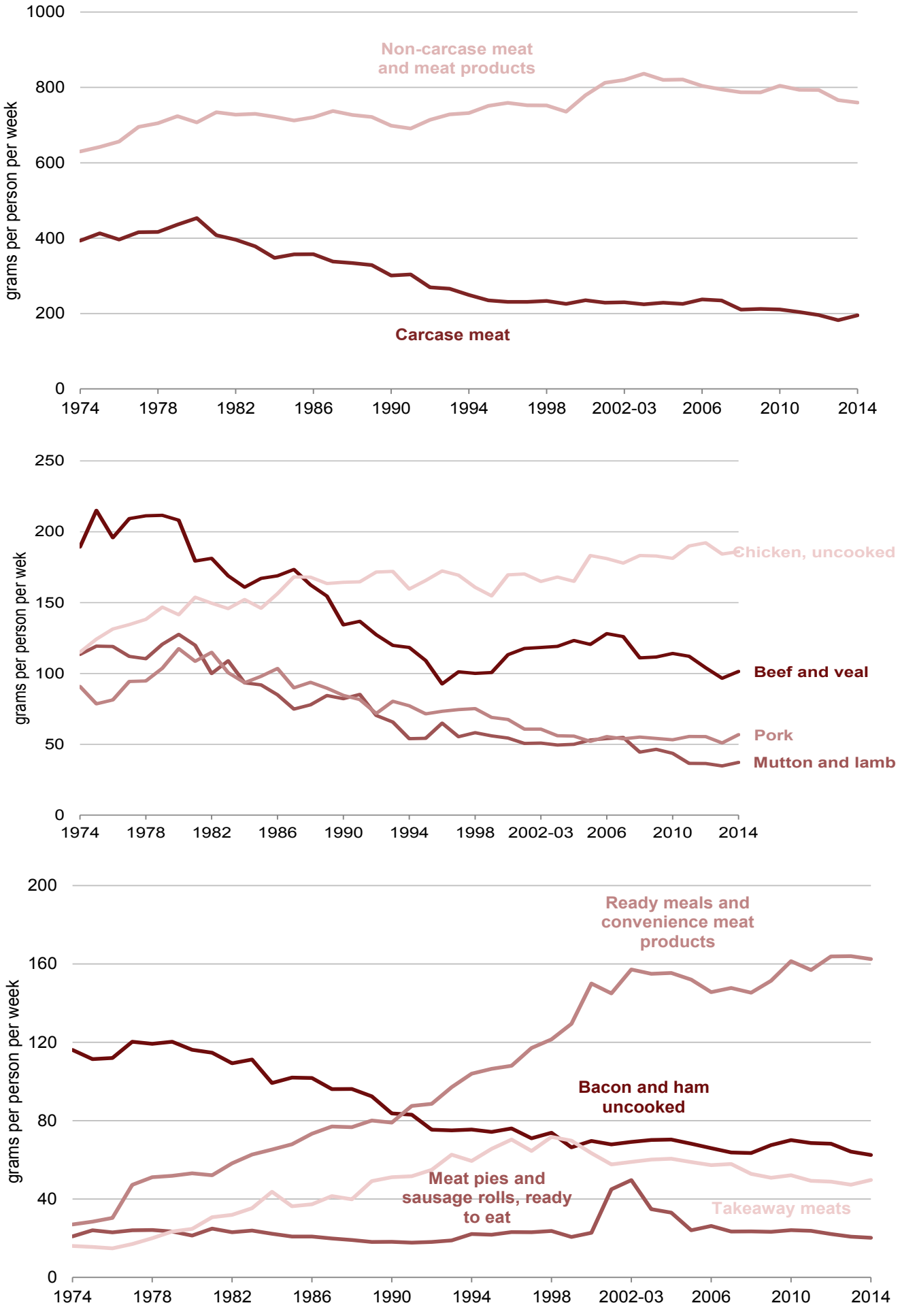
Household purchases of cheese have fluctuated over the last ten years, and show no clear trend since 2010. Cheddar type cheeses account for around half of all cheese purchases by weight, at 61 grams per person per week.

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 15 and 14 per cent respectively between 2011 and 2014. Purchases of bread are 20 per cent lower than in 2004. Purchases of 'other breads', which includes continental and specialty breads, were 1.5 per cent lower in 2014 than in 2011.

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

Chart 2.2: UK purchases of meat, 1974 – 2014



Meat

Purchases of raw carcase meat have been on a downward trend since 2010, but rose by 7.2 per cent in 2014.Beef, which accounts for around half of raw carcase meat purchases declined by 9.5 per cent on 2011, but increased 5.0% on 2013. Purchases of pork were 2.3 per cent up on 2011, and 11.5 per cent up on 2013.

Purchases of 'non-carcase meat and meat products' have declined since 2011, by 4.3 per cent, equivalent to 34 grams per person per week. Most cooked and canned meat categories show downward trends.

Fish

Household purchases of fish and fish products have been falling since 2006, and fell 2.3 per cent between 2011 and 2014 to 144 grams per person per week. Ready meals, which account for about one third of purchases, had been showing signs of increasing in recent years, but were down by 10 per cent on 2011. Purchases of salmon have been stable between 2011 and 2014.

Soft drinks and beverages

Household purchases of soft drinks were 5.2 per cent lower in 2014 compared to 2011, a fall of 84 grams per person per week. Within this category, household purchases of 'not low calorie soft drinks' are on a downward trend since 2011 and fell by 19 per cent between 2011 and 2014 from 954 to 774 grams per person per week. This was mirrored by an upward trend in 'low calorie soft drinks' with household purchases 14 per cent higher in the same period up from 676 to 772 grams per person per week. The beverages category mainly comprises tea and coffee – fruit juice and mineral water are covered elsewhere.

Chart 2.3: UK purchases of fruit and vegetables, 1974 – 2014

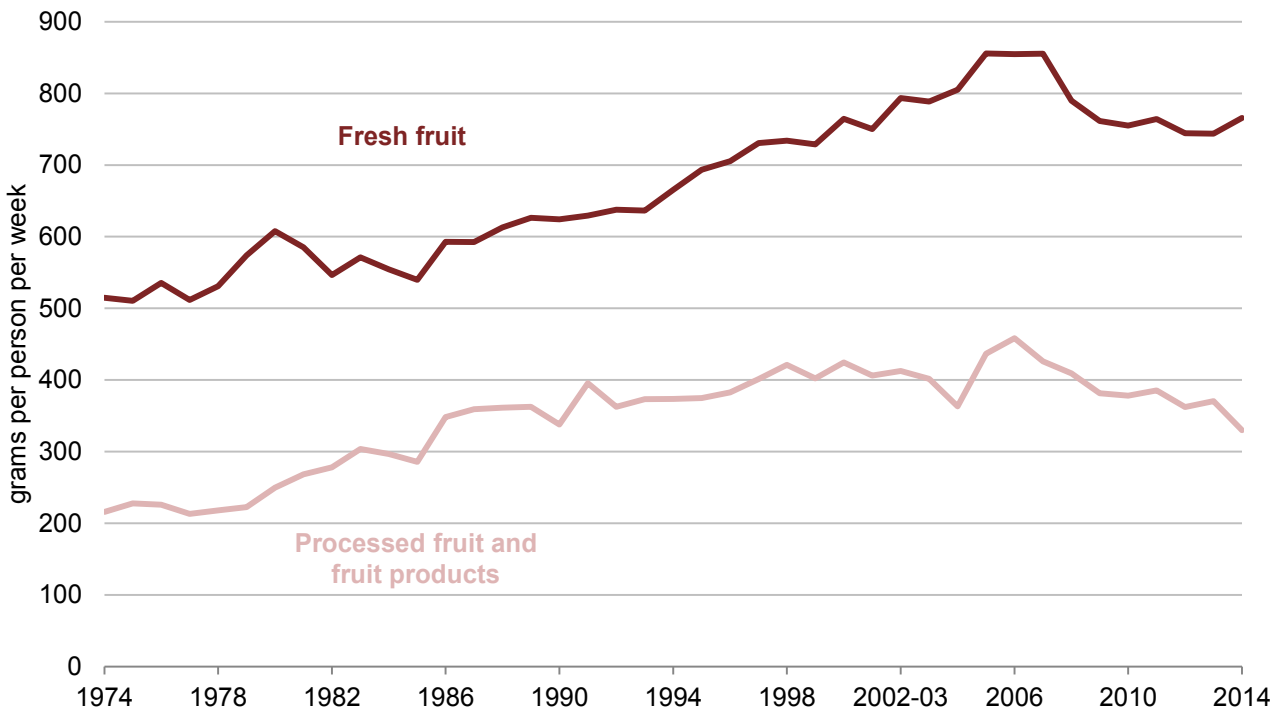
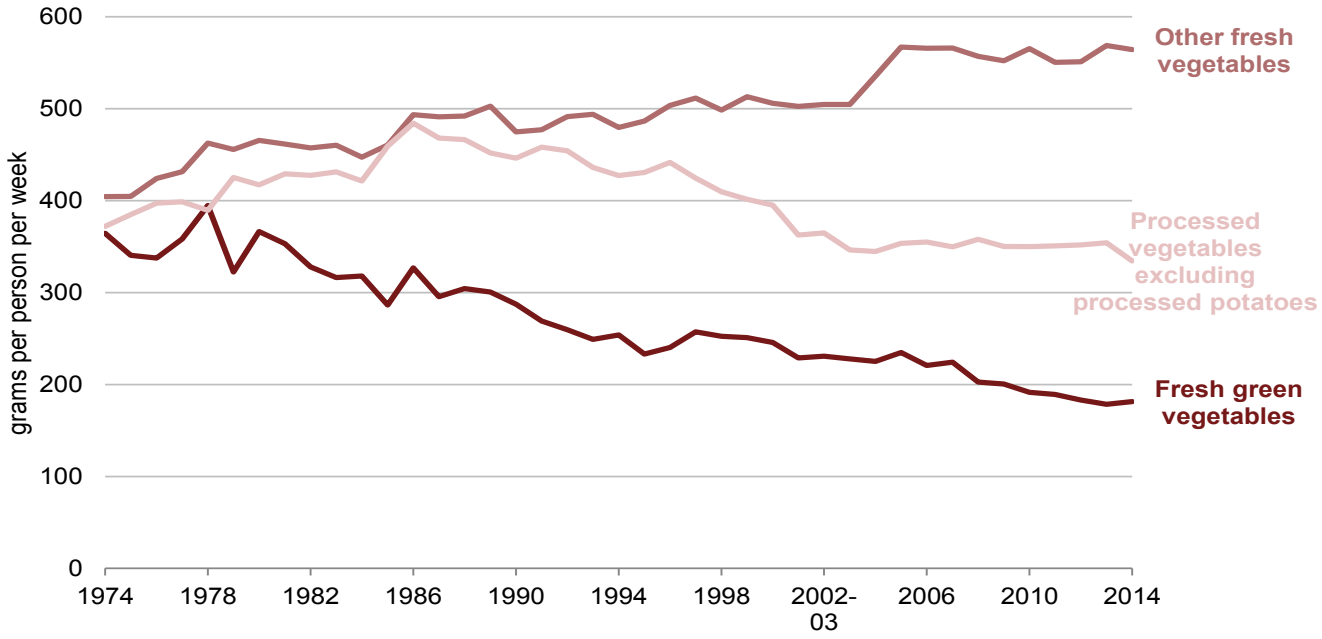


Chart 2.3: UK purchases of fruit and vegetables, 1974 – 2014



Alcoholic drinks

There is a range of evidence to suggest that self reported alcohol consumption in surveys is less than actual consumption. Comparisons of implied consumption with alcohol sales data have suggested that social survey estimates could be 40 per cent or more lower than actual consumption. Thus the Family Food estimate of the absolute level of intake is almost certain to be an underestimate due to under-reporting of alcoholic drinks. However, the trends are likely to be valid.

Household purchases of alcoholic drinks have shown a steady decline since 2011, 7.3 per cent lower in 2014 than in 2011. Intake of alcohol (in grams) is examined in Chapter 3.

2.3 Home-grown food

In 2014, 3.1 per cent of fresh fruit and vegetables entering the household came from free sources, mainly gardens and allotments. This is down from 3.5 per cent in 2013. In 2014, the percentage of eggs entering the household which were free or home produced was 5.0 per cent.

Table 2.2: Percentage of household food home-grown in gardens or allotments

	2009	2010	2011	2012	2013	2014
Beans	29	29	33	28	29	27
Potatoes	3	2	7	3	3	3
Onions, leeks and shallots	3	3	4	3	4	4
Tomatoes	6	7	6	5	6	7
All other vegetables	4	3	4	3	3	4
Apples	3	10	9	3	8	3
Soft fruit	5	8	10	9	12	6
All other fruit	8	1	2	1	1	8
Overall percentage	3.3	3.6	5.0	2.7	3.5	3.1
Eggs	5.1	5.6	5.7	5.0	7.0	5.0

The total amount of home-grown fruit and vegetables in grams per person per week is 60 grams. In 2014 household purchases of fresh fruit and vegetables (including potatoes) was 1,888 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 27 per cent of all fresh beans entering the household in 2014.

2.4 Takeaway food and drink

Takeaway purchases for consumption within the home are classed as household purchases (see Methodology papers). Table 2.3 summarises the takeaway part of the major food groups. Between 2011 and 2014, purchases of takeaway food brought home have remained similar. Expenditure on takeaway foods was £1.83 per person per week in 2014, 7.0 per cent higher than in 2011.

Table 2.3: UK household purchased quantities and expenditure on takeaway food brought home

Purchases	2010	2011	2012	2013	2014	RSE [a]	% change since 2013	% change since 2011	trend since 2011 [b]
				grams per person per week					
Total Meat	59	55	56	54	56	✓✓	5.0	2.7	
Total Fish	10	11	11	10	10	✓✓	-0.4	-11.6	
Total Vegetables	45	46	43	41	42	✓✓	2.7	-6.9	↘
Total Bread	5	4	5	5	5	✓	2.5	28.2	
Total Other cereals [c]	42	40	44	41	41	✓✓	1.8	3.0	
Total Miscellaneous	2	2	2	2	2	✓	1.5	6.1	
Expenditure	2010	2011	2012	2013	2014	RSE [a]	% change since 2013	% change since 2011	
				pence per person per week					
Total Meat	73	70	72	73	77	✓✓	4.6	9.0	
Total Fish	17	19	18	18	18	✓✓	2.4	-4.7	
Total Vegetables	26	27	27	27	28	✓✓	3.5	3.5	
Total Bread	7	6	8	8	9	✓	13.5	50.8	
Total Other cereals [c]	46	45	51	47	47	✓✓	1.5	4.7	
Total Miscellaneous	3	3	3	4	3	✓	-5.7	10.9	
Total	172	171	179	177	183				

(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.

2.5 Eating out purchases

There are downward trends in purchases of some categories of eating out food and drink since 2011, notably:

- Meat and meat products up 11 per cent,
- Confectionery down 21 per cent,
- Alcoholic and soft drinks down 19 and 1 per cent respectively,
- Yoghurt and fromage frais down 19 per cent and
- Biscuits and chocolate down 14 per cent.

Table 2.4: UK eating out purchased quantities of food and drink, 2010-2014

		2010	2011	2012	2013	2014	RSE[a]	% change since 2013	% change since 2011	trend since 2011[b]
Number of households in sample		5263	5692	5596	5144	5134				
Number of persons in sample		12196	13448	13196	12144	12150				
Eating out purchases										*grams per person per week unless otherwise stated*
Alcoholic drinks										
average across whole population	ml	413	394	355	321	320	✓✓	-0.6	-18.8	↘
average excluding under 14's	ml	494	472	426	386	320	✓✓	-17.3	-32.3	↘
Soft drinks inc. milk drinks	ml	279	269	254	264	267	✓✓✓	+1.0	-1.0	↘
Other food products [c]		144	118	103	107	117	✓✓	+9.1	-1.1	↘
Beverages	ml	117	117	118	115	118	✓✓	+2.3	+0.7	
Meat and meat products		75	75	76	70	78	✓✓✓	+11.0	+4.1	
Sandwiches		67	64	63	64	59	✓✓	-7.9	-7.7	
Potatoes (fresh and processed)		62	62	62	61	65	✓✓✓	+6.7	+5.2	
Indian, Chinese or Thai food		31	30	28	31	29	✓	-7.0	-0.8	
Vegetables		26	27	27	25	28	✓✓	+10.7	+4.0	
Ice cream, desserts and cakes		25	25	24	25	24	✓✓	-4.1	-3.7	
Cheese and egg dishes or pizza		22	22	21	20	22	✓✓	+8.8	-1.1	↘
Salads		17	16	17	18	19	✓✓	+1.9	+17.5	
Rice, pasta or noodles		15	15	14	15	16	✓✓	+6.8	+9.7	
Fish and fish products		14	13	14	13	14	✓✓	+7.4	+5.1	
Fresh and processed fruit		12	12	11	12	12	✓✓	-6.1	-2.0	
Confectionery		10	9	8	8	7	✓✓	-7.7	-21.4	↘
Soups		8	10	9	9	9	✓	+3.6	-11.7	
Bread		7	7	7	7	7	✓✓	+0.2	-1.4	
Crisps, nuts and snacks		7	7	6	7	6	✓✓	-5.0	-10.9	
Biscuits and chocolate		3	3	2	2	2	✓	+0.7	-13.5	↘
Yoghurt and fromage frais		2	2	2	1	2		+33.0	-19.4	↘
Breakfast cereals		0	1	1	1	1	×	+21.6	+50.6	

(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 3 Dietary Trends

3.1 Overview

In this chapter food and drink purchases are converted to estimates of energy and nutrient intake. 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.
More detailed series for all years from 1974 onwards are available to download in spreadsheet format. Estimates for some types of food and therefore some nutrient intakes are available from 1940 at the National Archives.

In parts of this chapter there is a focus on low income households to examine the greater effects food price rises may have on vulnerable groups in society. In this context 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. This lowest twenty percent is termed a quintile, a fifth of the whole sample; but some data is further broken down into the lowest tenth of the sample by equivalised income, and the next lowest tenth, and these two deciles are used to provide more detailed analysis.

Key points

- Total energy intake from all food and drink for all households is on a downward trend, 4.6 per cent lower in 2014 than in 2011.
- Between 2013 and 2014, the lowest income households (bottom 10 per cent) increased energy intake from household food, while those in the second decile decreased energy intake from household food.
- Intakes of NMES measured as a percentage of food and drink energy (excluding alcohol), was lower in 2014 than in 2011. Intake continues to exceed recommended maximum levels.
- The average intake of sodium, excluding table salt, has been on a declining trend since 2007, but was 76 per cent above the recommended maximum grams per day in 2014.
- Mean intakes of all vitamin and mineral intakes were close to or exceeded the population-weighted Reference Nutrient Intake, where one is set.

3.2 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.

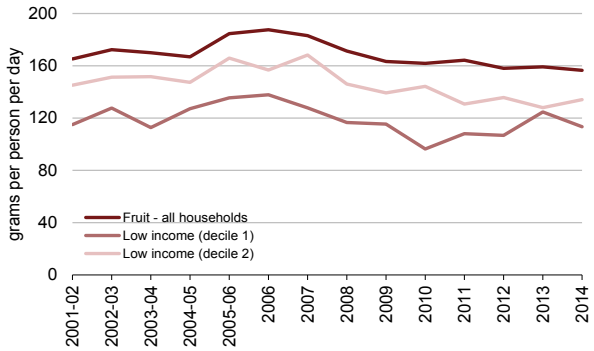
Definitions of certain nutritional terms can be found in the glossary.

3.3 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.

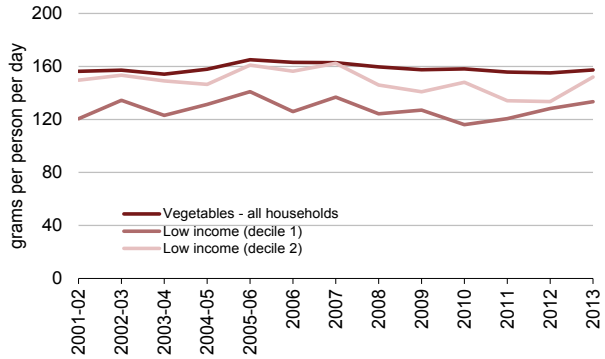
Increasing the consumption of fruit and vegetables is a Government policy. Family Food provides evidence of recent reductions in consumption using household purchases as a proxy for consumption. This relies on the assumption that household wastage rates of fruit and vegetables remain relatively stable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

Chart 3.1a: Trends in fruit purchases



- Overall purchases of fruit increased to 2006 but have fallen 14 per cent since 2007.
- Lowest income households (decile 1), purchased 11.3 per cent less fruit in 2014 than in 2007.
- Income decile 2 households purchased 20 per cent less fruit in 2014 than in 2007.

Chart 3.1b: Trends in vegetable purchases



- Purchases of vegetables peaked in 2005 and have fallen 5.2 per cent since 2007.
- Lowest income households (decile 1) purchased 6.6 per cent less vegetables in 2014 than in 2007.
- Income decile 2 household purchases increased sharply in 2013, but have fallen again in 2014 and have fallen 20 per cent since 2007.

Table 3.1: Household purchases of fruit and vegetables

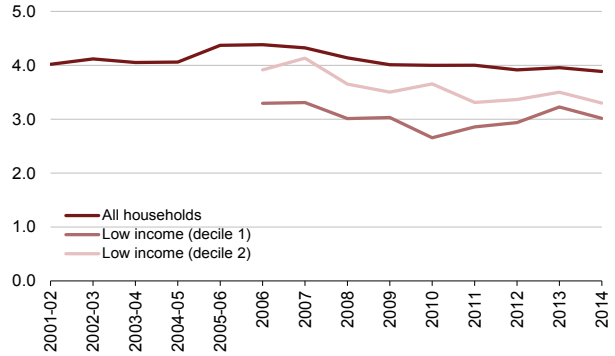
Grams per person per week	2007	2008	2009	2010	2011	2012	2013	2014	% change since 2007
All households									
Fruit and vegetables excluding potatoes	2421	2317	2246	2240	2240	2193	2216	2176	-10.1
Fruit	1281	1199	1143	1133	1150	1107	1114	1096	-14.5
Vegetables	1140	1118	1103	1107	1090	1086	1102	1080	-5.2
Income decile 1 households									
Fruit and vegetables excluding potatoes	1853	1686	1697	1487	1600	1645	1807	1688	-8.9
Fruit	895	816	807	675	756	747	873	793	-11.3
Vegetables	958	870	890	812	844	898	934	895	-6.6
Income decile 2 households									
Fruit and vegetables excluding potatoes	2314	2044	1961	2047	1853	1885	1960	1847	-20.2
Fruit	1178	1022	975	1010	915	950	896	939	-20.3
Vegetables	1137	1022	986	1037	939	935	1064	908	-20.1

Table 3.1 shows that:

- Fruit and vegetable purchases were 10 per cent lower in 2014 than 2007.
- For income decile 1 the drop is 8.9 per cent, and for decile 2 it is 20 per cent.
- Households in income decile 1 purchase the least fruit and vegetables.
- In 2014 income decile 1 households purchased 22 per cent less fruit and vegetables than all households, and 8.6 per cent less than those in income decile 2.

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, one portion of pulses and one portion of fruit juice, and it assumes 80 grams per portion for all ages and all produce.

Chart 3.2 Trends in fruit and vegetable purchases measured as portions



- On average, all households purchased 3.9 portions of fruit and vegetables per person per day in 2014.
- Lower income households (deciles 1 and 2) have consistently purchased smaller quantities of fruit and vegetables, both had increased in 2012 and 2013 but have decreased in 2014.
- Income decile 1 households purchased 3.0 portions of fruit and vegetables per person per day in 2014.

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 levels have dropped since. The Health Survey for England also shows:

- For adults, fewer men than women consumed the recommended five or more portions of fruit and vegetables on the previous day (25 per cent and 28 per cent respectively). For children,16 per cent of boys and 17 per cent of girls consumed at least five portions on the previous day.

- Consumption varied with age among both adults and children. Children aged 11-12 and adults aged 16-24 consumed, on average, the lowest number of portions of fruit and vegetables and were least likely to meet the '5 A DAY' recommendation.

- Higher consumption was also associated with higher income, and vice versa: 30 per cent of men and 35 per cent of women in the highest income quintile had consumed five or more portions on the previous day compared with only 19 per cent of men and 23 per cent of women in the lowest quintile. The same pattern was seen in children.

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. Latest estimates based on data collected from 2008/09-2011/12 show that mean consumption fell below 5 portions per day – 4.1 portions/day for adults and 2.9 portions/day for children 11-18 years. There was no difference in consumption when comparing 2008/10 with 2010/12.

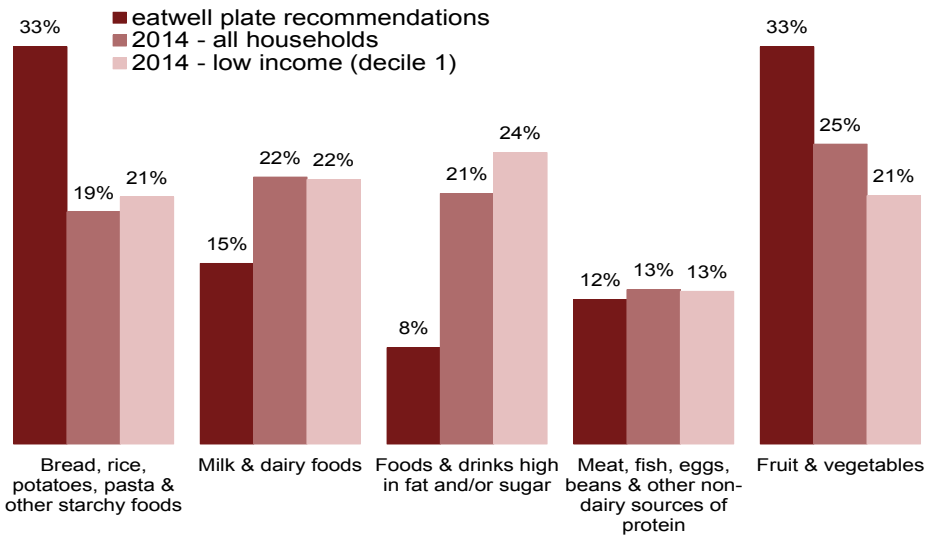
Using Family Food data from 2011, WRAP estimates show that in 2012 an average of £66 per household per week was spent on food on drink. £9 of this food and drink was avoidable waste, £1.84 (20%) of which was fresh fruit, vegetables and salad. This wasted food is estimated to have provided more than 13 billion "5 a day" portions of fruit and vegetables.

3.4 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 food groups 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 3.3 shows the average UK diet for all households and low income households (equivalised income decile 1) compared to the eatwell plate categories.

Chart 3.3: Eatwell plate comparison for low income and all households



Looking at balance of diet:

- Neither low income households nor 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 recommendation.
- Both low income households and all households have a relatively similar diet when compared to the eatwell plate.

3.5 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 changes in the prevalence of obesity.

Based on food and drink purchases, total energy intake per person was 4.6 per cent lower in 2014 than in 2011. 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 2142 kcal per person per day in 2014.

Energy intake from eating out was 4.2 per cent lower in 2014 than in 2011. Average energy intake from eating out was 226 kcal per person per day in 2014 accounting for 11 per cent of total energy intake.

Trends in energy intake

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.

Context: Nutritional intake estimates

It is a widely recognised characteristic of self reported diary surveys such as Family Food that survey respondents tend to under report their purchases (and so implied nutrient intakes based on purchased quantities are also likely to be underestimates). Empirical comparisons of sales and duty data for alcohol in particular suggest that reported alcohol consumption could be 40-60 per cent lower than the reality. For other food and drink, reporting is likely to be closer to actual purchases, but underreporting is likely to feature and some food types may be underreported to a greater extent than others.

Although such surveys are completely confidential, respondents may under report for a range of reasons, from self consciousness to simply forgetting to record purchases. 'Top up' and eating out purchases are probably more likely to be missed than the main household shop. There is no evidence to say whether levels of underreporting have changed over time but it is plausible that changes in household shopping and eating patterns may have contributed to increased underreporting.

Users should bear this issue in mind, when considering trends in estimated intakes and the values for individual years. For example the downward trend in energy intake estimates can appear counter-intuitive at face value given other evidence on the prevalence of obesity. Factors affecting obesity and other health issues are complex. Family Food trends are broadly consistent with other sources, such as the National Diet and Nutrition Survey which also show reported energy intake in decline, although NDNS intakes are also known to be underreported.

There are much more data and analysis available about health and diet from Public Health England.

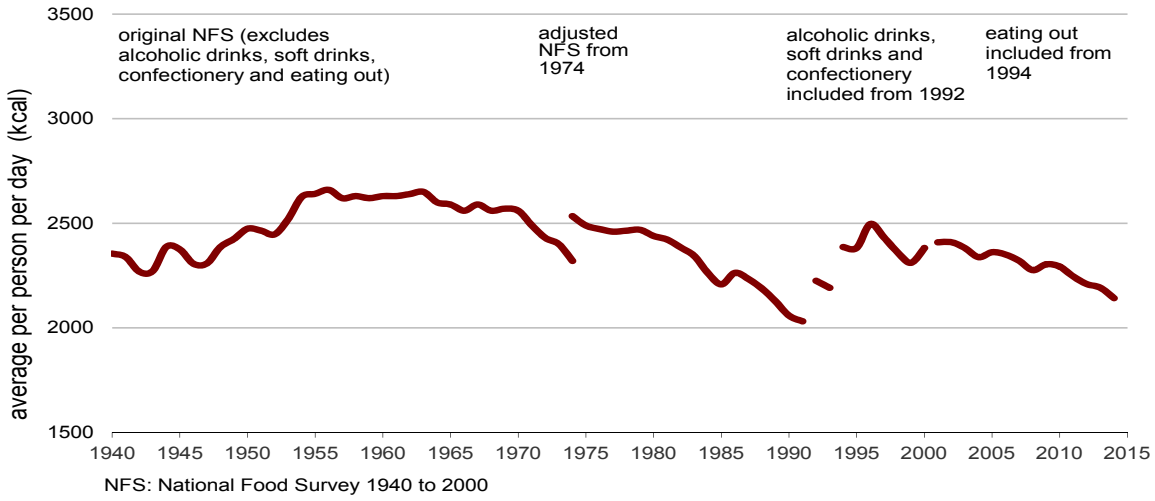
Table 3.2: Estimates of energy intake as the survey has evolved

	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]	
											kcals per person per day
1940	2355							2355		2355	
1974	2320		2534					2534		2534	100
1980	2230		2439					2439		2439	96
1990	1870		2058					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	2409	2098	310	2409	76
2003-04					2079	303	2381	2079	303	2381	75
2005-06					2082	280	2362	2082	280	2362	74
2006					2074	276	2351	2074	276	2351	74
2007					2052	268	2320	2052	268	2320	73
2008					2028	248	2276	2028	248	2276	71
2009					2054	250	2304	2054	250	2304	72
2010					2035	258	2293	2035	258	2293	72
2011					2009	236	2245	2009	236	2245	70
2012					1990	219	2209	1990	219	2209	69
2013					1972	220	2192	1972	220	2192	69
2014					1916	226	2142	1916	226	2142	70

(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 3.4: Average energy intake from food and drink since 1940



- Energy intake per person declined 32 per cent between 1974 and 2014 (shown as 67 for 2014 in the index of change).

Chart 3.5: Energy derived from household food and drink 2001-2014

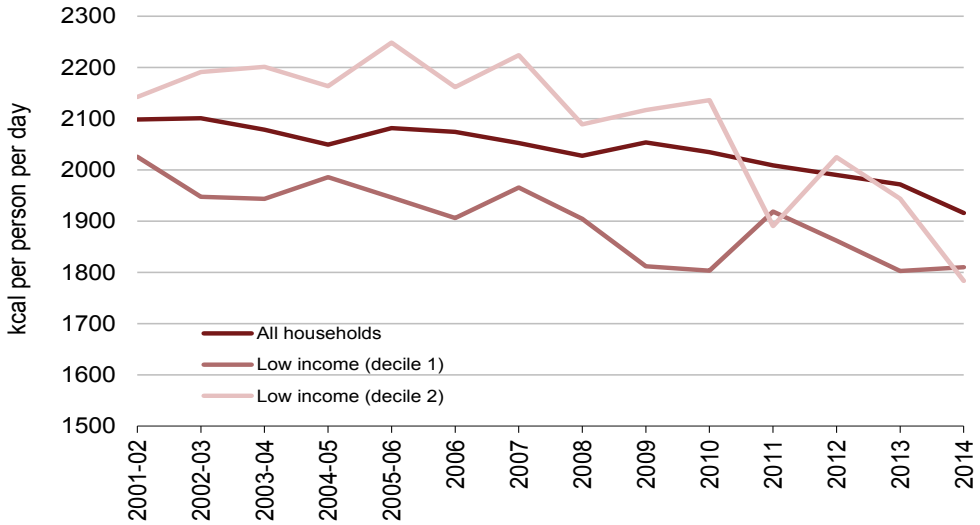


Chart 3.5 shows that:

- Energy intake from household food across all households was 6.6 per cent lower in 2014 than in 2007.
- Income decile 2 households (second lowest group) energy intake from household food fell in 2014 to 1783 kcals per person per day – below the national average and 20 per cent less than in 2007.
- Income decile 1 households (lowest income group) energy intake from household food rose by 0.4 per cent in 2014 to 1810 kcals per person per day.
- Income decile 1 households (lowest income group) had 7.9 per cent less energy intake from household food in 2014 than in 2007.

Bread accounts for 9.6 per cent of the energy derived from household purchases (Table 3.3). Meat and meat products accounted for 11 per cent. Nearly 15 per cent came from potatoes, fruit and vegetables (fresh and processed).

Table 3.3: Contribution to total household energy intake from foods

	Energy - kcal	% of household food and drink energy[a]
	average per person per day	
Liquid whole milk (including welfare and school milk)	26	1.3%
Other milk and cream	136	7.1%
Cheese	56	2.9%
Carcase meat	53	2.8%
Non-carcase meat and meat products	203	10.6%
Fish	29	1.5%
Eggs	17	0.9%
Fats	155	8.1%
Sugar and preserves	55	2.9%
Fresh and processed potatoes	42	2.2%
Fresh green vegetables	5	0.2%
Other fresh vegetables	18	0.9%
Processed vegetables	126	6.6%
Fresh fruit	44	2.3%
Processed fruit and fruit products	52	2.7%
Bread	185	9.6%
Flour	26	1.4%
Cakes, buns and pastries	71	3.7%
Biscuits and crispbreads	109	5.7%
Other cereals and cereal products	247	12.9%
Beverages	5	0.3%
Other foods	79	4.1%
Soft drinks	40	2.1%
Confectionery	82	4.3%
Alcoholic drinks	56	2.9%
Total	**1916**	**100.0**

(a) includes energy from alcoholic drinks

Table 3.4 Intakes from different types of household foods

	Energy	Fat	Saturated fatty acids	Calcium	Iron	Non-milk extrinsic sugars	Sodium	Folate	Vitamin C	β-carotene	Vitamin A (Retinol equiv.)
										average per person per day	
	kcal	grams	grams	mg	mg	grams	mg	µg	mg	µg	µg
Milk and cream [a]	161	6.8	4.3	321	0.2	2.9	125	17	3.6	38	85
Cheese	55	4.6	2.9	93	-	-	104	4.6	-	21	50
Carcase meat	53	3.6	1.5	1.9	0.3	-	17	2.6	-	-	0.5
Non-carcase meat and meat products	203	12	4.6	28	1.1	..	501	11	2.2	68	147
Fish	29	1.4	0.3	11	0.2	-	65	2.5	..	5.3	3.5
Eggs	17	1.2	0.3	6.1	0.2	-	20	6.2	-	-	16
Fats and oils	155	17	5.5	2.6	-	0.2	77	9.8	-	79	132
Sugar and preserves	55	-	-	2.4	..	14	3.2	-	0.3	0.6	..
Fresh potatoes	42	..	-	3.6	0.2	-	1.6	7.8	6.9	-	-
Fresh green vegetables	4.7	..	-	8.9	..	-	2.2	13	6.0	85	14
Other fresh vegetables	17	0.2	..	15	0.3	-	7.8	18	6.6	1447	241
Processed vegetables	125	5.2	0.9	24	0.8	0.7	171	22	6.1	261	48
Fresh fruit	44	0.4	..	9.4	0.2	-	66	11	15	31	5.2
Processed fruit	51	2.6	0.5	9.4	0.2	4.7	14	11	12	14	2.5
Bread	184	2.2	0.6	117	1.5	..	335	24	-	1.5	6.6
Flour	26	..	-	7.0	..	-	..	1.2	-	-	-
Cakes, buns and pastries	71	3.0	1.2	16	0.3	4.6	64	2.4	0.2	3.7	12
Biscuits	108	5.0	2.5	26	0.5	5.4	77	2.6	-	2.6	0.8
Other cereal products [b]	247	5.1	1.6	75	2.5	4.3	254	39	0.8	42	24
Beverages	5.4	..	-	6.2	0.2	0.5	6.2	7.8	-	-	1.1
Other food [c]	79	4.3	1.3	23	0.4	6.2	364	12	0.6	99	18
Soft drinks	39	-	-	8.3	-	10	14	2.8	9.8	36	6.1
Confectionery	81	3.4	1.8	20	0.3	11	17	1.6	-	5.0	6.4
Alcoholic drinks	55	-	-	6.3	0.3	1.1	6.1	2.4	-	0.2	0.4
Total household intake	1916	79	30	848	10	67	2319	237	71	2246	824
Percentage of total intake per person per day from household purchases											
	%	%	%	%	%	%	%	%	%	%	%
Milk and cream [a]	8	9	14	38	2	4	5	7	5	2	10
Cheese	3	6	10	11	..	-	5	2	-	1	6
Carcase meat	3	4	5	..	3	-	1	1	-	-	..
Non-carcase meat and meat products	11	16	15	3	11	..	22	5	3	3	18
Fish	2	2	1	1	2	-	3	1	..	..	..
Eggs	1	1	1	1	2	-	1	3	-	-	2
Fats and oils	8	22	18	..	..	..	3	4	-	4	16
Sugar and preserves	3	-	-	..	1	22	..	-	..	-	-
Fresh potatoes	2	..	..	..	2	-	..	3	10	-	-
Fresh green vegetables	..	..	..	1	1	-	..	6	8	4	2
Other fresh vegetables	1	..	..	2	3	-	..	8	9	64	29
Processed vegetables	7	7	3	3	8	1	7	10	9	12	6
Fresh fruit	2	..	..	1	2	-	3	5	22	1	1
Processed fruit	3	3	2	1	2	7	1	5	17	1	..

Table 3.4 continues over the page

Table 3.4 continued

	Energy	Fat	Saturated fatty acids	Calcium	Iron	Non-milk extrinsic sugars	Sodium	Folate	Vitamin C	β-carotene	Vitamin A (Retinol equiv.)
Bread	10	3	2	14	15	..	14	10	-	..	1
Flour	1	..	..	1	1	-	-	1	-	-	-
Cakes, buns and pastries	4	4	4	2	3	7	3	1	..	..	2
Biscuits	6	6	8	3	5	8	3	1	-	..	..
Other cereal products [b]	13	6	5	9	25	6	11	17	1	2	3
Beverages	..	..	..	1	2	1	..	3	-	-	..
Other food [c]	4	5	4	3	4	9	16	5	1	4	2
Soft drinks	2	-	-	1	..	16	1	1	14	2	1
Confectionery	4	4	6	2	3	16	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

3.6 Nutrient intakes from eating out

Eating out accounted for 11 per cent of total energy intake in 2014. 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 3.5.

The estimation methods for unspecified meals are described in the methodology paper 'Free food and unspecified meals estimation'.

3.7 Reference 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 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. In July 2015 SACN published its report on carbohydrates and health, which included new recommendations for intake of sugar and fibre, based on new definitions. Work to produce intake estimates based on the new definitions is underway

Many tables in this chapter compare nutrient intakes derived from the survey with Reference Nutrient Intakes[1] (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'.

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

Table 3.5 Intakes from different types of food eaten out

	Energy	Fat	Saturated fatty acids	Calcium	Iron	Non-milk extrinsic sugars	Sodium	Folate	Vitamin C	β carotene	Vitamin A (Retinol equiv.)
										average per person per day	
	kcal	grams	grams	mg	mg	grams	mg	µg	mg	µg	µg
Indian, Chinese and Thai meals or dishes	13	1	..	3.6	..	..	25	1.2	..	6.6	1.5
Meat and meat products	25	1.5	1	6.9	..	-	55	1.9	..	20	10
Fish and fish products	4.3	..	-	1.3	-	-	5.1	..	-	..	1
Cheese and egg dishes and pizza	7.0	..	..	4.1	-	-	11	2.3	..	4.7	4.7
Potatoes	16	1	..	1	..	-	3.0	4.4	1.4	..	..
Vegetables	3.3	..	-	1.7	-	-	8.2	1.5	..	40	7.0
Salads	1.7	..	-	1.1	-	-	2.4	1	..	19	3.6
Rice, pasta and noodles	2.9	..	-	..	-	-	1.4	..	-	..	..
Soups	1	-	-	..	-	-	5.8	..	-	..	-
Breakfast cereals	..	-	-	..	-	-	1	..	-	-	-
Fruit	1	-	-	.	-	-	-	..	..	1	..
Yoghurt	..	-	-	..	-	-	..	-	-	-	-
Bread	2.8	..	-	1.4	-	-	5.4	..	-	..	1
Sandwiches	17	0.8	0.2	9.2	..	-	36	1.9	..	10	5.4
Beverages	1.5	..	-	1.8	-	..	1.1	..	-	..	..
Soft drinks including milk	11	..	-	5.3	-	2.5	2.5	1	1	1	1.0
Alcoholic drinks	18	-	-	3.2	-	1.2	3.4	4.0	..	..	-
Confectionery	4.5	..	..	1.3	-	..	1.0	..	-	..	..
Ice cream, desserts and cakes	11	1	..	2.9	-	1	8.6	..	..	3.5	4.5
Biscuits	1.5	..	-	..	-	..	1	-	-	-	-
Crisps, nuts and snacks	4.6	..	.	..	-	..	6.3	..	-	..	..
All food & drink eaten out [a]	148	6.0	1.9	46	0.7	5.6	183	20.8	4.1	110	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	6	2	6	4
Meat and meat products	17	24	29	15	19	1	30	9	4	19	26
Fish and fish products	3	4	2	3	2	-	3	2	..	..	1
Cheese and egg dishes and pizza	5	7	8	9	7	..	6	11	3	4	12
Potatoes	11	12	5	2	8	-	2	21	34	..	1
Vegetables	2	2	1	4	6	1	4	7	7	37	17
Salads	1	1	2	2	3	..	1	4	11	18	9
Rice, pasta and noodles	2	1	1	1	2	-	1	1	..	.	..
Soups	..	..	..	..	1	..	3	1	-	..	..
Breakfast cereals	..	..	..	..	..	-	..	..	-	-	-
Fruit	..	..	..	..	..	-	-	..	4	1	..
Yoghurt	..	-	..	1	-	..	..	-	-	-	..
Bread	2	1	2	3	2	-	3	1	-	..	1
Sandwiches	12	14	13	20	14	..	20	9	4	10	13
Beverages	1	1	2	4	2	2	1	1	1	..	1
Soft drinks including milk	8	1	3	11	1	45	1	3	22	1	2
Alcoholic drinks	13	-	-	7	6	21	2	19	4	..	-
Confectionery	3	3	5	3	1	11	1	..	-	..	..
Ice cream, desserts and cakes	7	10	14	6	4	12	5	2	1	3	11
Biscuits	1	1	1	1	1	2	..	..	-	-	-
Crisps, nuts and snacks	3	5	5	1	2	1	3	1	1	..	..

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.

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

Based on the food and drink purchases, average micronutrient intakes were all above or close to the weighted reference nutrient intakes (RNI) in 2014.

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

Income decile 1 households (lowest income group) had 7.9 per cent less energy intake from household food in 2014 than in 2007.

Other demographic variables as well as income are important and not considered here.

Table 3.6: Summary of recommendations

Item	Population Recommendations
Sodium	**Less than 2.4 grams sodium per day (6 grams of salt).** 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.
Percentage of energy intake derived from saturated fatty acids	**Population average intake should contribute no more than 11 per cent of food energy.**
Percentage of energy intake derived from non-milk extrinsic sugars	**Population average intake should contribute no more than 11 per cent of food energy.**
Fruit	**At least 400g of fruit and vegetables per day equivalent to the 5 A DAY guidance.**
Vegetables excluding potatoes	**At least 400g of fruit and vegetables per day equivalent to the 5 A DAY guidance.**
Fibre	**Population average intake of at least 18 grams per day.**

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

Table 3.7 UK energy and nutrient intakes in the UK in 2014 as a percentage of weighted Reference Nutrient Intakes

		Nutrient intakes in 2014			Intake as a percentage of weighted Reference Nutrient Intake [a]		
		Household	Eaten out	Total	Household	Eaten out	Total
							per person per day
Energy [b]	kcal	1916	226	2142	92	11	102
Energy excluding alcohol [b]	kcal	1867	212	2080	89	10	99
Protein	g	65.8	8.6	74.3	144	19	163
Calcium	mg	848	66	915	124	10	133
Iron	mg	10.1	1.1	11.2	99	11	110
Zinc	mg	7.8	1.0	8.8	98	12	110
Magnesium	mg	253	26	280	96	10	106
Sodium [c]	g	2.32	0.30	2.62	156	20	176
Potassium	g	2.78	0.34	3.12	87	11	98
Thiamin	mg	1.52	0.19	1.71	181	22	204
Riboflavin	mg	1.72	0.14	1.86	151	12	163
Niacin equivalent	mg	30.5	4.1	34.6	219	30	249
Vitamin B_6	mg	1.8	0.3	2.1	144	26	170
Vitamin B_{12}	µg	5.5	0.5	6.1	398	39	437
Folate	µg	237	37	274	126	20	146
Vitamin C	mg	71	8	79	185	21	207
Vitamin A (retinol equivalent)	µg	824	97	921	133	16	148

(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.

Sodium (excluding table salt)

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 a maximum 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’.

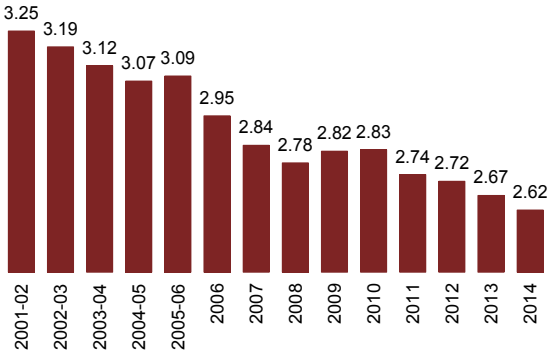
Family Food provides evidence of trends in sodium intake but underestimates the actual intake levels as it excludes the contribution from table salt purchases (because table salt also has non-food uses in the household).

The total intake of sodium continues to fall, with levels in 2014 4.5 per cent lower than in 2011, a statistically significant downwards trend. Eating out accounted for 20 per cent of sodium intake. Sodium intake from eating out fell 3.8 per cent in 2014 compared to 2011. Major contributors to the sodium content of household food purchases in 2014 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 3.4.

The biggest contributors to sodium intake, from Table 3.4, 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 2014, but reformulation of manufactured food products is likely to have had some influence.

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.

Chart 3.6 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.
- Sodium intake from foods fell to a new low level of 2.67 grams in 2013, equivalent to 6.67 grams of salt.
- Sodium intake from foods exceeds the maximum recommended level of 2.4 grams per person per day, equivalent to 6 grams of salt.

Non milk extrinsic sugars (NMES)

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. In its report on carbohydrates and health published in summer 2015, SACN recommended that the term 'free sugars' should be adopted in place of non-milk extrinsic sugars. Free sugars are defined as sugars added to food or those naturally present in honey, syrups and unsweetened fruit juices. They exclude lactose in milk and milk products. This is similar, though not identical, to the definition of NMES. SACN recommended that intake of free sugars should account for no more than 5% of daily dietary energy intake, halving the previous recommendation, based on NMES. Work to develop a detailed definition of free sugars in order to estimate intakes is underway. In the meantime intakes of NMES will continue to be presented

Total intake of non-milk extrinsic sugars is on a long term downwards trend and fell 9.7 per cent between 2011 and 2014. Intake of NMES, as measured as a percentage of food and drink energy (excluding alcohol) was 13.1 per cent, 2.8 per cent below the 2011 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 10.3 per cent of eating out food and drink energy in 2014. Eating out purchases account for around 8.1 per cent of total NMES intake.

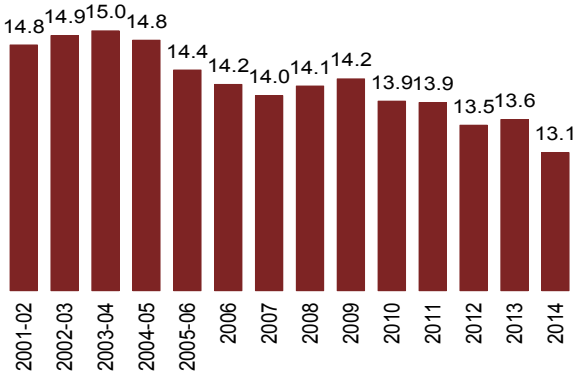
The sugar naturally present in milk and milk products (lactose) is excluded from the definition as it is not considered to have adverse effects on teeth. The recommendation is that intake of NMES should account for no more than 11 per cent of food energy intake.

According to Family Food, the percentage of energy derived from NMES exceeds the recommended maximum levels for the population average diet. In 2014, the population derived 13.1 per cent of food energy from NMES, which is 2.1 percentage points over the maximum recommended level.

Table 3.4 shows that most NMES come from the food categories; 'sugar and preserves', soft drinks and confectionery.

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.

Chart 3.7 Recent trend in the percentage of food energy derived from NMES from household and eating out food and drink



- 13.1 per cent of energy came from NMES in 2014.
- 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, rising by 0.1 percentage point in 2013, followed by a reduction of 0.5 percentage points in 2014.

Fat and saturated fatty acids

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.

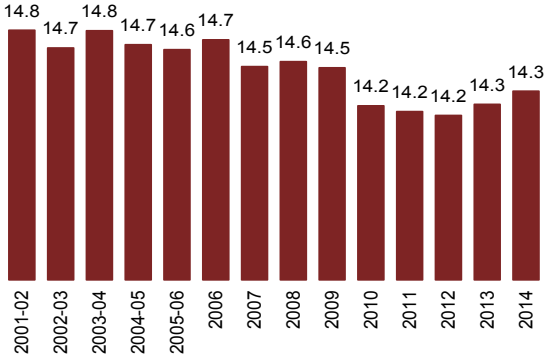
The National Diet and Nutrition Survey provides supporting evidence that saturated fatty acid intakes exceed the recommended maximum in all age groups. It reports a lower estimate for total fat intake that is in line with the recommended level for most age groups.

Total intake of saturated fatty acids (measured in grams per person per day) continued on a downward trend, falling by 3.5 per cent between 2011 and 2014. In 2014, 14.5 per cent of food and drink energy (excluding alcohol) was derived from saturated fatty acids.

Saturated fatty acids provided 13.1 per cent of eating out food and drink energy in 2014. Eating out purchases provided 9.3 per cent of saturated fatty acid intakes. Over the three years 2011 to 2014, intake of unsaturated fatty acids showed a downward trend. Monounsaturated fatty acids declined by 1.7 per cent, while intakes of polyunsaturates fell by 3.8 per cent.

Table 3.4 shows that most saturated fatty acids come from purchases of ‘fats and oils’, ‘non-carcase meats and meat products’, ‘milk and cream’ and cheese.

Chart 3.8 Recent trend in the percentage of food energy derived from saturated fatty acids from household and eating out food and drink



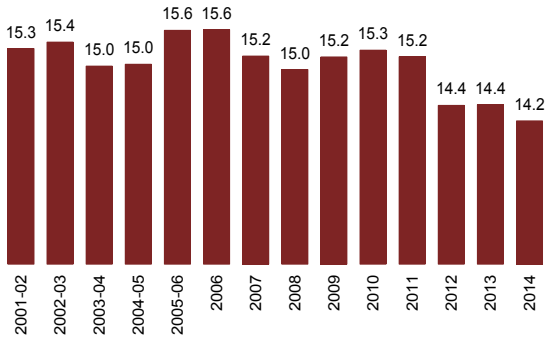
- Between 2001-02 and 2014, the percentage of energy from saturated fatty acids declined.
- During the same period, the percentage of energy from fat was generally stable, with an average of 38.4 per cent.
- Both are above the recommended levels.

Fibre

The recommendation for fibre intake set by COMA in 1991 was for an average of 18 grams/day for adults, based on non-starch polysaccharides measured by the Englyst method. In its report on carbohydrates and health published in summer 2015, SACN recommended that a broader definition of fibre should be adopted, based on the AOAC method, and that the new recommendation based on this definition should be 30g per day, an increase of about 6g/day compared with the previous recommendation. There is strong evidence to indicate that diets high in fibre are associated with a lower risk of cardiovascular disease, type 2 diabetes and bowel cancer. Work to estimate fibre intakes based on the new definition is underway. In the meantime intakes will continue to be published based on the previous definition .

Fibre intake in 2014 has declined on 2013, at an average of 14.2 grams per person per day. This was a 7.1 per cent fall from 2010.

Chart 3.9 Recent trend in fibre intake in grams per person per day



- Fibre intake in 2014 had decreased at 14.2 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 remains below the recommended level by 3.8 grams per person per day.

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 2010 and 2014.

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 2010 to 2013, intakes of most vitamins and minerals showed downward trends, notably Vitamin B6 and folate, with decreases of 13 and 8.1 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.

Prior to 2012, total carotene intake was based on composition data for beta carotene only, as beta carotene is the main component. Retinol equivalent intake is a calculated value derived using both retinol and total carotene data. In 2012, the composition data for fruit and vegetables was updated using total carotene data. Other food groups will be updated with total carotene data as it becomes available. These changes in the basis of composition data for carotene partly explain the apparent increases in intake of carotene and retinol equivalent between 2011 and 2014.

Alcohol

There is a range of evidence to suggest that self reported alcohol consumption in surveys is less than actual consumption. Comparisons of implied consumption with alcohol sales data have suggested that social survey estimates could be 40 per cent or more lower than actual consumption. Thus the Family Food estimate of the absolute level of intake is almost certain to be an underestimate due to under-reporting of alcoholic drinks.

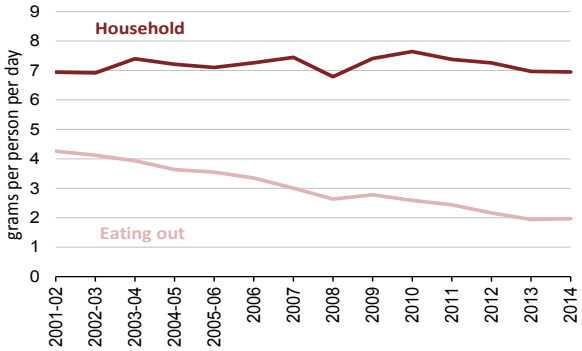
However, the trends are likely to be valid.

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.

Alcohol intake rose 0.1 per cent in 2014 to 8.9 grams per person per day. Eating out purchases accounted for 19 per cent of total alcohol intake in 2014. In 2014, eating out intakes of alcohol were 24 per cent lower than in 2010 and up until 2014 showed a significant downward trend.

Chapter 2 shows that household purchases of alcoholic drinks fell by 2.7 per cent in 2014 and are 7.3 per cent lower than in 2011. Eating out purchases fell by 0.6 per cent in 2014 and is 18.8 per cent lower than 2011. Chapter 2 shows that alcohol intake from household and eating out combined in 2014 was 0.1 per cent higher than 2013 and 12.8 per cent lower than in 2010.

Chart 3.10 Trend in intake of alcohol in grams per person per day



- Alcohol intake from eating out purchases declined 54 per cent between 2001-02 and 2014.
- Alcohol intake overall rose 0.1 per cent in 2014 to 8.9 grams per person per day (averaged over the entire UK population).

Table 3.8 UK average energy and nutrient intakes from all food and drink 2010-2014

		2010	2011	2012	2013	2014	% change since 2013	% change since 2011	Trend since 2011	% from food eaten out in 2014
Total energy and nutrient intakes [a]										*average intake per person per day*
Energy	kcal	2293	2245	2245	2192	2142	-2.3	-4.6	↘	10.6
	MJ	9.6	9.4	9.4	9.2	9.0	-2.3	-4.6		10.6
Energy excluding alcohol	kcal	2221	2176	2176	2129	2080	-2.3	-4.4		10.2
Total Protein	g	78.6	77.2	77.2	74.8	74.3	-0.6	-3.7		11.5
Fat	g	95	92	92	91	89	-1.9	-2.9	↘	0.0
Fatty acids:										
Saturates	g	35.1	34.3	34.3	33.7	33.1	-1.7	-3.5	↘	9.3
Monounsaturates	g	37.0	35.8	35.8	35.8	35.2	-1.7	-1.7		12.2
Polyunsaturates	g	17.1	16.2	16.2	16.0	15.6	-2.7	-3.8	↘	13.8
Cholesterol	mg	257	252	252	244	244	+0.3	-3.0	↘	14.1
Carbohydrate [b]	g	279	276	276	269	260	-3.2	-5.8	↘	8.8
Total sugars	g	125	124	124	119	115	-4.0	-7.3	↘	7.0
Non-milk extrinsic sugars	g	82	81	81	77	73	-6.0	-9.7	↘	8.1
Starch	g	153	152	152	149	145	-2.6	-4.6	↘	10.2
Fibre [c]	g	15.3	15.2	15.2	14.4	14.2	-1.7	-6.5	↘	11.0
Alcohol	g	10.2	9.8	9.8	8.9	8.9	+0.1	-9.1	↘	22.1
Calcium	mg	965	955	955	934	915	-2.0	-4.2	↘	7.3
Iron	mg	11.9	11.8	11.8	11.4	11.2	-1.9	-5.0	↘	10.1
Zinc	mg	9.4	9.2	9.2	8.8	8.8	-0.4	-4.3	↘	11.1
Magnesium	mg	289	287	287	282	280	-0.8	-2.4	↘	9.5
Sodium [d]	g	2.83	2.74	2.74	2.67	2.62	-1.9	-4.5	↘	11.4
Potassium	g	3.21	3.21	3.21	3.13	3.12	-0.3	-2.7	↘	11.0
Thiamin	mg	1.67	1.62	1.62	1.74	1.71	-1.5	+5.4	↗	11.0
Riboflavin	mg	1.89	1.92	1.92	1.87	1.86	-0.6	-3.5	↘	7.3
Niacin equivalent	mg	34.4	33.6	33.6	34.8	34.6	-0.5	+3.0	↗	11.9
Vitamin B_6	mg	2.5	2.4	2.4	2.1	2.1	-0.5	-12.7	↘	15.1
Vitamin B_{12}	µg	6.4	6.2	6.2	6.0	6.1	+0.0	-2.7	↘	9.0
Folate	µg	302	298	298	278	274	-1.4	-8.1	↘	13.6
Vitamin C	mg	80	77	77	82	79	-3.2	+2.9	↗	10.3
Vitamin A:										
Retinol	µg	542	533	533	511	489	-4.2	-8.2	↘	8.5
β-carotene	µg	2300	2187	2187	2572	2579	+0.3	+17.9	↗	12.9
Retinol equivalent	µg	927	900	900	941	921	-2.1	+2.3		10.5
Vitamin D	µg	3.12	3.10	3.10	3.17	3.08	-2.8	-0.7		10.3
Vitamin E	mg	12.36	12.33	12.33	12.44	12.09	-2.8	-1.9		12.6
As a percentage of food and drink energy excluding alcohol										
Fat	%	38.6	38.1	38.1	38.5	38.7	+0.4	+1.6		
Fatty acids:										
saturates	%	14.2	14.2	14.2	14.3	14.3	+0.7	+1.0		
monounsaturates	%	15.0	14.8	14.8	15.1	15.2	+0.7	+2.8		
polyunsaturates	%	6.9	6.7	6.7	6.8	6.7	-0.3	+0.7		
Carbohydrate	%	47.2	47.6	47.6	47.4	47.0	-0.9	-1.4		
Non-milk extrinsic sugars	%	13.9	13.9	13.9	13.6	13.1	-3.7	-5.5		
Protein	%	14.2	14.2	14.2	14.0	14.3	+1.8	+0.7		

Table 3.7 continues over the page

Table 3.8 continued

		2010	2011	2012	2013	2014	% change since 2013	% change since 2011
As a percentage of weighted reference nutrient intake [f]								
Energy [e]	%	109	107	105	105	102	-2.2	-4.4
Energy exc alcohol [e]	%	106	104	102	102	99	-2.2	-4.3
Protein	%	171	168	166	163	163	-0.5	-3.5
Calcium	%	140	139	136	136	133	-1.9	-4.0
Iron	%	116	115	111	112	110	-1.7	-4.6
Zinc	%	117	115	112	111	110	-0.4	-4.3
Magnesium	%	109	108	107	106	106	-0.7	-2.2
Sodium [d]	%	189	184	182	179	176	-1.9	-4.4
Potassium	%	101	100	99	98	98	-0.2	-2.5
Thiamin	%	199	193	211	206	204	-1.4	+5.5
Riboflavin	%	166	168	165	164	163	-0.5	-3.4
Niacin equivalent	%	247	242	237	237	238	+0.5	-1.4
Vitamin B_6	%	202	194	175	175	176	+0.8	-9.5
Vitamin B_{12}	%	460	449	440	439	442	+0.7	-1.5
Folate	%	160	158	150	150	151	+0.7	-4.5
Vitamin C	%	208	200	214	214	215	+0.5	+7.4
Vitamin A (retinol equivalent)	%	149	145	153	153	154	+0.7	+6.2

(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.

Table 3.9 UK average energy and nutrient intakes from household and eating out food and drink

		2014 Household	% change since 2011 Household	Trend since 2011	2014 Eating out	% change since 2011 Eating out	Trend since 2011
Total energy and nutrient intakes [a]							*average intake per person per day*
Energy	kcal	1916	-4.6	↘	226	-4.2	
	MJ	8.0	-4.6	↘	0.9	-4.2	
Energy excluding alcohol	kcal	1867	-4.6		212	-3.1	
Total Protein	g	65.8	-4.1		8.6	-0.9	
Vegetable Protein	g	40.1	-3.6	↘			
Animal Protein	g	25.7	-4.8	↘			
Fat	g	79	-2.9	↘	10	-2.7	
Fatty acids:							
Saturates	g	30.1	-3.4	↘	3.1	-4.4	
Monounsaturates	g	30.9	-1.7		4.3	-1.9	
Polyunsaturates	g	13.4	-4.1	↘	2.1	-2.0	
Cholesterol	mg	210	-3.5	↘	34	0.3	
Carbohydrate [b]	g	237	-5.9	↘	23	-4.3	
Total sugars	g	107	-7.3	↘	8	-6.8	↘
Non-milk extrinsic sugars	g	67	-9.8	↘	6	-8.6	↘
Starch	g	130	-4.8	↘	15	-2.8	
Fibre [c]	g	12.6	-7.0	↘	2	-2.1	
Alcohol	g	7.0	-5.8	↘	2.0	-19.3	↘
Calcium	mg	848	-4.1	↘	66	-5.2	↘
Iron	mg	10.1	-5.2	↘	1.1	-3.5	
Zinc	mg	7.8	-4.6	↘	1.0	-1.6	
Magnesium	mg	253	-2.3	↘	26	-3.4	
Sodium [d]	g	2.32	-4.61	↘	0.30	-3.9	
Potassium	g	2.78	-2.82	↘	0.34	-1.8	
Thiamin	mg	1.52	6.30	↗	0.19	-1.6	
Riboflavin	mg	1.72	-3.54	↘	0.14	-2.8	
Niacin equivalent	mg	30.5	3.7	↗	4.1	-1.7	
Vitamin B_6	mg	1.8	-14.4	↘	0.3	-2.1	
Vitamin B_{12}	µg	5.5	-2.8	↘	0.5	-1.3	
Folate	µg	237	-8.9	↘	37	-2.7	
Vitamin C	mg	71	3.4	↗	8	-1.3	
Vitamin A:							
Retinol	µg	448	-8.4		41	-6.3	
β-carotene	µg	2246	21.2	↗	332	-0.7	
Retinol equivalent	µg	824	3.0	↗	97	-3.2	
Vitamin D	µg	2.76	-0.9		0.32	0.9	
Vitamin E	mg	10.57	-1.9		1.52	-2.2	
As a percentage of food and drink energy excluding alcohol							
Fat	%	38.1	1.7		43.5	0.4	
Fatty acids:							
Saturates	%	14.5	1.3		13.1	-1.4	
Monounsaturates	%	14.9	3.0		18.2	1.2	
Polyunsaturates	%	6.5	0.6		9.1	1.1	
Carbohydrate	%	47.7	-1.4		40.4	-1.2	
Non-milk extrinsic sugars	%	13.4	-5.5		10.3	-5.7	
Protein	%	14.1	0.5		16.2	2.2	

Table 3.9 continued

		2014 Household	% change since 2011 Household	Trend since 2011	2014 Eating out	% change since 2011 Eating out	Trend since 2011
As a percentage of weighted reference nutrient intake [f]							
Energy [e]	%	92	-4.5		11	-4.1	
Energy exc alcohol [e]	%	89	-4.4		10	-2.9	
Protein	%	144	-3.8		19	-0.6	
Calcium	%	124	-3.9		10	-4.9	
Iron	%	99	-4.7		11	-3.0	
Zinc	%	98	-4.6		12	-1.6	
Magnesium	%	96	-2.1		10	-3.2	
Sodium [d]	%	156	-4.5		20	-3.8	
Potassium	%	87	-2.6		11	-1.6	
Thiamin	%	181	6.4		22	-1.4	
Riboflavin	%	151	-3.4		12	-2.7	
Niacin equivalent	%	208	-1.4		30	-1.6	
Vitamin B_6	%	150	-10.7		26	-2.0	
Vitamin B_{12}	%	402	-1.6		39	-1.2	
Folate	%	131	-4.8		20	-2.4	
Vitamin C	%	194	8.5		21	-1.2	
Vitamin A (retinol equivalent)	%	138	7.4		16	-3.1	

(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.

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 2014.

Survey organisation

Family Food 2014 is a report on the 2014 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. 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 2014 for the LCFS in Great Britain, of which 10,333 were eligible households (i.e. were not empty properties or business addresses). In Great Britain 4,982 households co-operated fully in the survey. The overall response rate for the 2014 LCFS was 48 per cent in Great Britain. In Northern Ireland 152 households co-operated out of a sample of 253, a response rate of 60 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.

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 the validation team 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 2013, and no significant changes were made.

The Family Food steering group

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

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Melanie Hargraves
Food and Drink Federation

Gillian Swan
Public Health England

Krishna Patel
Department of Health

Professor Martin Wiseman
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Dermot Donnelly
Northern Ireland Statistics and Research Agency

Family Food production team

Julie Rumsey, Andrew Scaife, David Lee
Additional support and inspiration from: Steve Charlton, Ruth Ireson, Sally Gray, Isabella Hayes and Marcus Worth.

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

Data in spreadsheet format are available to download from the Defra website.

The Family Food data are spreadsheets containing survey estimates for years 2001/02 onwards. The UK household consumption and the UK household expenditure spreadsheets show results 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 2014) 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.