



Monitoring retail purchase and price promotions in Scotland (2010 – 2016)

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i. About Food Standards Scotland

Food Standards Scotland (FSS) is the public sector food body for Scotland. We are here to ensure that information and advice on food safety and standards, nutrition and labelling is independent, consistent, evidence-based and consumer-focused.

Our primary concern is consumer protection – making sure that food is safe to eat, ensuring consumers know what they are eating and improving nutrition. With that in mind, our vision is to deliver a food and drink environment in Scotland that benefits, protects and is trusted by consumers.

FSS was established by the Food (Scotland) Act 2015 as a non-ministerial office, part of the Scottish Administration, alongside, but separate from the Scottish Government. We are mainly funded by government but we also charge fees to recover costs for regulatory functions.

See more at: <http://www.foodstandards.gov.scot/about-us>

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ii. Glossary

Term	Definition
Take home (retail) food and drink purchase	All food and drink purchased for use <i>within</i> the home, i.e. all grocery shopping. This definition excludes take-away (including home delivered take-away food) and any foods that were purchased for immediate consumption outside the home such as a sandwich purchased at a supermarket, or a meal ordered within a restaurant.
Nutritional volume	Calculation of nutrients requires a measure of quantity. In most cases the nutritional volume is kilograms or litres; however for some categories (loose products like cakes, pastries, morning goods and eggs) where pack weights are not available, volume is expressed as number of servings.
Price promotions:	This includes:
Temporary price reduction	<i>A temporary reduction in the cost of a product, e.g. 10% off</i>
Y for £X	<i>An offer of buying a set number of products for a set price, e.g. 2 for £2</i>
Multi-buy	<i>Including buy one get one free (BOGOF) and 3 for 2 offers.</i>
Other promotions	<i>Includes extra free deals, meal deals, free gifts and samples</i>
Scottish Index of Multiple Deprivation	The Scottish Index of Multiple Deprivation identifies the level of multiple deprivation in small areas across all of Scotland in a consistent way. These areas can then be grouped into quintiles (fifths). Quintile 1 refers to the most deprived area, and quintile 5 refers to the fifth least deprived area.
Discretionary Food and Drink	Food and drink which are high in calories and/or salt, low in nutritional value and which are not required for our health, including confectionery, cakes, biscuits, pastries, crisps and savoury snacks and sugary drinks.
Total sugars	Includes both sugars naturally present in foods such as fruit, vegetables and cereals, in addition to lactose found in milk products, and any added sugars.
Free sugars	This comprises all sugars (monosaccharides and disaccharides) added to foods by the manufacturer, cook or consumer, plus sugars naturally present in honey, syrups and unsweetened fruit juices. Under this definition lactose when naturally present in milk and milk products is excluded.
Energy density	Energy density, also known as calorie density, is the amount of calories in a specific weight of food, e.g. kcals per gram, per 100g or per kg.



1. Executive Summary

1.1. Background and methods

The Food Standards Scotland (FSS) dietary surveillance programme includes monitoring of retail food and drink purchase into the home in Scotland, using market research data from Kantar Worldpanel. The aim of this report is to update previous key findings with data on food and drink purchase and promotions up to 2016, and to expand the information provided on price promotion, including trends over time and differences by retailer. The report also provides further insights into the change in sugar purchase by category and the value of promotions to consumers.

The data in this report was provided by Kantar Worldpanel who collect data on food and drink purchase into the home from a large consumer panel, including around 2,625 panellists in Scotland. Data on volumes purchased are combined with nutrition information from product labels to estimate take home calorie and nutrient purchases. Retailer specific data was provided for the top 5 retailers in Scotland (Tesco, Asda, Morrisons, Sainsbury's and The Co-operative) and the discounters (Aldi and Lidl combined).

The analyses within this report has been conducted by FSS.

1.2. Results

1.2.1. Volumes of nutrients purchased into the home

Overall there has been very little change in the total purchase of calories (-2.1%), total fat (-1.2%), saturated fat (+3.1%) or total sugar (-0.9%) since 2010 with the exception of sodium which has decreased by around 20%. The majority of the reduction in sodium occurred between 2010 and 2013 and there is little to suggest that sodium purchase has continued to reduce beyond 2013.

1.2.2. Top 20 food and drink categories contributing to purchase of total calories, total fat, saturated fat, total sugars and sodium in Scotland

Discretionary foods and drinks such as confectionery, cakes, biscuits, pastries, crisps and savoury snacks and regular soft drinks together with puddings and desserts, ice-cream, edible ices and dairy desserts contributed considerably to purchase of calories (24%), total fat (25%), saturated fat (28%), total sugar (37%) and sodium (11%). There has been little change in the contribution of these foods and drinks to purchase of calories, fats, sugar and sodium since 2010.



1.2.3. Sugar purchase

Between 2010 and 2016 there was a continuous decrease in the purchase of regular soft drinks, alongside an increase in the purchase of diet soft drinks, which has led to an overall reduction in the purchase of sugar from soft drinks. This however, has not translated into a substantial reduction in total sugar purchase overall (just 0.9% since 2010). There was little indication of reductions in sugar for most other discretionary categories, in fact there were some increases, which have offset the sugar reduction in soft drinks. For example, since 2012 there has been an increase in the sugar purchased from confectionery, breakfast spreads, ice-cream, edible ices and dairy desserts, equating to around 3,838 tonnes of sugar, which cancels out (and exceeds) the reduction in sugar purchased from regular soft drinks (- 3,253 tonnes).

1.2.4. Purchase patterns by area deprivation

The results showed that, with increasing deprivation, spend per 2,000 kcal of food and drink decreased. Consistent with other information on diet in Scotland, the data showed that households within the 20% most deprived areas purchased a greater proportion of their calories from confectionery, biscuits, sugary drinks and plain bread, and a smaller proportion from fruit, vegetables and plain starchy carbohydrates such as pasta, noodles and cous cous (not including bread or potatoes) compared with those in the least deprived areas.

1.2.5. Price promotions in Scotland

The level of overall price promotions in 2016 was 36% of calories, which is a decrease from 39% in 2014 and 2015. Due to a change in method, the results for 2014 and 2015 in this report are slightly different to those published for 2014/15 combined (40%).

The balance between different types of price promotions has shifted since 2010. The proportion of total calories purchased through temporary price reductions (TPR) has increased from 21% in 2010 to 26% in 2016, whereas calories purchased through Y for £X offers has declined from 13% in 2010 to 8% in 2016. The proportion of calories purchased as part of a multi-buy offer has reduced from 2% to almost 0%. Prominence of Y for £X and multi-buy offers has declined among both the healthier and less healthy categories presented within this report.

The data showed that the top 5 retailers purchase on price promotion ranging from 36% to 45% in 2016, while the proportion purchased from the discounters was much lower (around 11%). TPRs were the most common form of price promotion among the top 5 retailers, followed by Y for £X and multi-buy offers. However Y for £X and multi-buy offers were very low or absent within Sainsbury's and the discounters.

Comparison of purchase on price promotion across a selection of healthier and less healthy categories showed that (with the exception of soft drinks where the balance of promotion was in favour of diet drinks) in 2016 the less healthy foods tended to be more frequently purchased on promotion than the healthier foods (average of 43% vs. an average of 27%). There have been some changes in the purchase of the healthier and less healthy food and drink categories on promotion since 2010, including some increases in the proportion of confectionery (44% vs. 48%) purchased on promotion, and reductions in purchase of plain bread (30% vs. 18%), potatoes (39% vs. 29%) and oil rich fish (39% vs. 32%) on promotion.



Purchase on price promotion across most retailers was generally skewed towards less healthy options (with the exception of soft drinks where the balance tended to be in favour of the diet drinks). The exception was the discounters where purchase on price promotion was similar between the healthier and less healthy categories or in some cases was higher for the healthier categories (e.g. water, fruit and vegetables).

The level of purchase on promotion within individual categories varied considerably by retailer. For example, purchase of confectionery on price promotion ranges from over 70% within 3 of the top retailers to only 10% within the discounters. The average purchase on price promotion for confectionery for the top 5 retailers (i.e. excluding the discounters) presented within this report was 68%. This pattern of higher promotion was also largely consistent for the other less healthy categories presented, including biscuits and crisps and savoury snacks.

Overall, the proportion of calories purchased on price promotion was similar by area deprivation. However, analysis by income does suggest that those with the lowest incomes spend a lower proportion of their food and drink budget on promotion, compared to those in the highest income groups (33% vs 39%), although the differences were small.

1.2.6. Spend per kilogram, on and off price promotion

Spend per nutritional volume (e.g. £ per kg/litre) has been used as an estimate of cost, and the cost of food and drink purchased with a price promotion has been compared to the cost of food and drink purchased without a price promotion.

These analyses found that, overall food and drink purchased on promotion was more expensive than food and drink purchased without a promotion. This was also the case for some individual food categories, such as edible ices and dairy desserts, ice-cream, oil rich fish, water and fruit where on average it was more costly for consumers to purchase products within these categories on promotion. However, there was no consistent pattern between the healthier and less healthy categories considered.

1.3. Conclusion

This report complements and adds to the evidence base which supports action to limit the availability, advertising and promotion of high fat/salt/sugar products as recommended by FSS.¹

The reduction in the purchase of sugar from soft drinks is welcome, however there has been little change in total purchase of calories and nutrients overall and increases in sugar from other food categories which now need to be addressed. Discretionary foods continue to contribute considerably to total purchase of calories, fats and sugars, and there has been little change since 2010.

Despite promotions overall having declined recently, the data presented showed that, in 2016, over a third of the retail food and drink purchased in Scotland was on price promotion, with the majority via temporary price reductions. Price promotions are designed to increase the amounts purchased, and this report provides evidence that purchase on promotion is currently skewed towards less healthy products, highlighting the need for change.

¹ Food Standards Scotland. Proposals for setting the direction for the Scottish diet, one year on (2017): http://www.foodstandards.gov.scot/downloads/Board_meeting_-_2017_March_08_-_Diet_and_Nutrition_one_year_on_0.pdf



2. Introduction

Food Standards Scotland (FSS) has a surveillance programme in place to monitor the dietary **intakes** of the Scottish population and the progress towards the Scottish Dietary Goals, primarily using a secondary analysis of the Living Costs and Food Survey (LCF) with additional de novo surveys of children's intakes^{2,3} and urinary surveys⁴ of population salt intakes. This monitoring data shows that there has been little improvement in the Scottish diet since monitoring began in 2001.⁵ The Scottish diet is energy dense, with too much fat, salt and sugar and too little fibre, fruits, vegetables and oil rich fish.

The FSS dietary surveillance programme also includes monitoring of retail food and drink **purchase** into the home in Scotland using market research data from Kantar Worldpanel. Data from Kantar Worldpanel has also been used in Scotland to monitor progress on salt reduction of manufactured products purchased into the home.⁶ FSS has previously published data on take home food and drink purchase in Scotland, with data up to September 2015.⁷ This report updates previous key findings with data up to 2016 and provides further insights into price promotions.

In January 2016, the Food Standards Scotland Board agreed a broad package of measures, applicable to both the food and drink industry and to consumers, to help tackle poor diet and obesity levels in Scotland.⁸ A further five recommendations were proposed in March 2017,⁹ including a recommendation that availability, advertising and promotions of high fat/salt/sugar products be limited. The Scottish Government published a consultation document on 26 October 2017 which proposes a range of actions to improve diet and weight in Scotland and includes consideration of specific targeted action to improve the balance of promotional activity towards healthier options. This report aims to provide evidence on the purchase and promotion of foods and drinks in Scotland, specifically in relation to dietary health.

² Food Standards Scotland. Survey to measure intake of non-milk extrinsic sugar in Scottish children (2008): <http://www.foodstandards.gov.scot/publications-and-research/survey-to-measure-intake-of-non-milk-extrinsic-sugar-in-scottish-children>

³ Food Standards Scotland. Survey of diet among children in Scotland (2012): <http://www.foodstandards.gov.scot/publications-and-research/survey-of-diet-among-children-in-scotland>

⁴ Food Standards Scotland. National diet and nutrition survey. Assessment of dietary sodium. Adults (19-64 years) in Scotland, 2014 (2016): <http://www.foodstandards.gov.scot/publications-and-research/national-diet-and-nutrition-survey-assessment-of-dietary-sodium>

⁵ Latest estimation of Food and Nutrient intakes in Scotland (interim report) <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

⁶ Latest estimation of Food and Nutrient intakes in Scotland (interim report) <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

⁷ Food Standards Scotland. Monitoring foods and drinks purchased into the home in Scotland (2016): <http://www.foodstandards.gov.scot/publications-and-research/monitoring-foods-and-drinks-purchased-into-the-home-in-scotland>

⁸ Food Standards Scotland. Proposals for setting the direction for the Scottish diet (2016): <http://www.foodstandards.gov.scot/publications-and-research/fss-board-meeting-20-january-2016>

⁹ Food Standards Scotland. Proposals for setting the direction for the Scottish diet, one year on (2017): http://www.foodstandards.gov.scot/downloads/Board_meeting_-_2017_March_08_-_Diet_and_Nutrition_one_year_on_0.pdf



3. Aims

This report presents:

- Trends (2010–2016) in the total take home purchase of calories and nutrients in Scotland
- The top 20 categories in 2016 contributing to purchase of:
 - Total calories
 - Total fat
 - Saturated fat
 - Total sugar purchase
- Trends (2010–2016) in total take home purchase of discretionary categories
- Purchase patterns in relation to deprivation
- Proportion of take home calories and nutrients purchased on price promotion
- Purchase of calories and nutrients on price promotion by Scottish Index of Multiple Deprivation
- Purchase on price promotion of healthier vs less healthy food categories
- Purchasing patterns in relation to spend per nutritional volume, on and off promotion
- Purchase patterns in relation to price promotions by retailer

The aim is to regularly publish updates so that changes can be tracked over time.



4. About the report

The data presented within this report was commissioned by FSS and provided by Kantar Worldpanel, however further analyses and reporting of data was carried out by FSS in collaboration with Kantar Worldpanel.

The aim of this report is to update previous key findings with data on food and drink purchase and promotions up to 2016, and to expand the information provided on price promotion, including trends over time and differences by retailer. The report also provides further insights into the change in sugar purchase by category and the value of promotions to consumers.

The previous report presented data for the full calendar years (Jan – Jan) 2010 – 2014, in addition to combined data for 2014/15 (Sept – Sept). Within this report, data has been presented for the full calendar years 2010 – 2016. This means that combined results for 2014/15 may vary slightly from individual results for 2014 and 2015.

The data presented relates to the retail environment and refers to take home purchase, i.e. it excludes anything which was purchased for consumption outside the home (OOH) such as a meal purchased in a café or restaurant. Evidence suggests spend OOH is increasing and provides around 11% of our calories.¹⁰ This data also excludes take-away food and drink (including home delivered take-aways). Therefore, the data presented is not a complete picture of consumer food and drink purchase in Scotland.

Furthermore, the data presented includes **purchase data** only and **does not necessarily equate to consumption**, as factors such as waste and cooking losses have not been accounted for.

Trends in purchase and promotion are presented between 2010 and 2016, with the exception of retailer specific data where trends are presented from 2012.

Retailer specific data was presented for the top 5 retailers (Tesco, Asda, Morrisons, Sainsbury's and The Co-operative) and the discounters (Aldi and Lidl combined) who, in 2016, contributed 83% of total take home spend and around 85% of all calories purchased into the home. Data on specific retailers outwith the top 5 retailers and the discounters was not presented, however they are captured within the results for total Scotland.

Data on volume purchase by retailer, available for publication, were used as the standardised method to compare differences between retailers. Results standardised by calories are generally similar to those standardised by volume.

¹⁰ Department for Environment, Food and Rural Affairs. Family food survey (2015), 2017: <https://www.gov.uk/government/statistics/family-food-2015>



Several sections of the report present analyses of 'healthier' and 'less healthy' categories. Classification of categories as 'healthier' or 'less healthy' was based on current dietary recommendations¹¹ and evidence around contributions to dietary intakes¹² and contribution to purchase and data on promotions.¹³ These categories were:

Healthier:

- Diet soft drinks
- Water
- Total fruit
- Total vegetables and salad leaves
- Plain oil rich fish
- Plain starchy carbohydrates
- Plain bread
- Plain potatoes

Less healthy

- Edible ices and frozen dairy desserts
- Ice-cream
- Puddings and desserts
- Total biscuits
- Total cakes and pastries
- Regular soft drinks
- Total confectionery
- Savoury pies and pasties
- Sausages
- Crisps and savoury snacks

¹¹ Food Standards Scotland: The Eatwell Guide (2016): <http://www.foodstandards.gov.scot/publications-and-research/eatwell-guide-booklet>

¹² Food Standards Scotland: Contribution of foods to intakes of energy and selected nutrients using food purchase data in Scotland, 2001 – 2012 (2015): <http://www.foodstandards.gov.scot/publications-and-research/monitoring-progress-towards-the-scottish-dietary-goals-2001-to-2012-report>

¹³ Food Standards Scotland. Monitoring foods and drinks purchased into the home in Scotland (2016): <http://www.foodstandards.gov.scot/publications-and-research/monitoring-foods-and-drinks-purchased-into-the-home-in-scotland>



5. Kantar Worldpanel: data collection and methodology

Kantar Worldpanel collects data on purchases into the home in Scotland for all food and drink from a large Great Britain household consumer panel of around 30,000 panellists on an on-going basis. Nutritional composition data from food labels is also collected and regularly updated. This allows assessment of changes over time in the purchase volume and related nutritional composition of individual food and drink categories including those on promotion, and assessment of the total purchase of calories, fats, sugar and salt into the home in Scotland.

Data used within this analysis was collected between January 2010 and January 2017, from around 2,625 Scottish household panellists each year. All food and drink products (around 100,000) purchased are categorised into around 340 sub-categories which form the basis of the 73 categories used in this analysis (see Annexe 1). Discussions took place between FSS and Kantar Worldpanel to agree the placing of some sub-categories to ensure the final agreed main 73 categories were defined so as to be as relevant as possible for monitoring purchase in relation to dietary health.

Data on calories, protein, total carbohydrate, total sugar, total fat, saturated fat, dietary fibre and salt is collected from package labels and updated every six months. Data on content from the label (defined as sourced from fieldwork, product samples and product packaging images and those copied across from different pack sizes), were available for over 66% of products (78% of volume) with the remaining imputed from similar products. In some cases, for non-bar coded products where package label data was not found (around 0.5% of products) published values from generic data derived from national food composition tables was used. For around 95% of products the data was either collected in the field within the previous year or imputed from these field values. For some product categories (bread, rolls, morning goods, cakes, and pastries) calorie and nutrient content values were provided per serving rather than per 100g. The strength of using the nutritional information from product packaging is that it is frequently updated by Kantar Worldpanel and is likely to reflect any recent changes in the household product mix and in the nutritional composition of the products. It should be noted, however, that there may be some inaccuracies in label information which can differ by up to 20% compared to analysed values.



Data on volumes purchased (based on the consumer panel records) is combined with product nutritional information to estimate the calorie, total fat, saturated fat and sugar contribution for all categories and in relation to total purchase. Annual purchase data for Scotland was also converted to daily per capita purchases, to help take account of changes in the size of the Scotland population and to provide information on trends in an easier to understand format. No weighting was done for changes to the profile of the population in terms of age and sex.

Price promotion data is also recorded by panellists. Types of promotional data collected by Kantar Worldpanel include “temporary price reduction” (TPR), “Y for £X”, “multi-buy” and “other promotion” (see glossary for definitions). These data have been used to assess and monitor price promotion activity, particularly in relation to less healthy and discretionary categories.

Kantar Worldpanel track their data regularly against published retailer data to ensure the data is reflecting known trends and, because this data is sold to many manufacturers and retailers who provide ongoing feedback on the quality of the data, they are able to make adjustments and ensure they are providing the most accurate measure of the grocery market.



6. Confidence intervals and statistical analyses

Previous FSS analysis of data from Kantar Worldpanel data has not included the calculation of confidence intervals (and therefore testing of statistical significance), as it was advised that traditional methods for carrying out such calculations were not suitable due to the non-random nature of the Kantar Worldpanel sample.

However, as part of FSS collaboration with Kantar Worldpanel to produce this report, possible alternative options for calculating confidence intervals for annual trend data were explored and submitted for consideration and discussion to external peer reviewers with expertise in statistics. Following external peer review, it was advised that it was unlikely that any of the options proposed would overcome the fundamental issue of non-random samples and therefore recommended that this was not taken forward. However, the conclusions from the peer review group were that the methodology used by Kantar Worldpanel was sufficiently robust (discussed under “Strengths” below in section 16), and that statistical approximations to confidence intervals would not necessarily provide any additional robustness in this case.

Rather than attempting to ascertain significance of particular trends, it was the view of the peer review group that results should be considered and bolstered by other sources of evidence (including FSS evidence on dietary intakes) and that results should be framed in the context of long term direction of travel.



7. Volumes of nutrients purchased into the home

Table 1 below presents the amount of calories and nutrients purchased *per capita*¹⁴ into the home from food and drink in Scotland between 2010–2016. The data presented shows that, with the exception of sodium, there has been little change in the purchase of calories and other nutrients *per capita per day* since 2010. However, purchase of saturated fat appears to have increased and the reductions in sugar seen between 2014 and 2015 were not maintained in 2016. In addition, there appears to have been little reduction in purchase of sodium since 2013.

Table 1:
Annual take home purchase of calories, sugars, fats, and sodium per capita in Scotland (2010–2016)

Per capita, per day	2010	2011	2012	2013	2014	2015	2016	% change since 2010
Energy (kcal)	2,147	2,091	2,098	2,074	2,081	2,044	2,101	-2.1%
Total sugar (g)	117	117	117	117	117	114	116	-0.9%
Fat (g)	85	83	83	83	83	81	84	-1.2%
Saturated fat (g)	32	32	32	32	32	31	33	+3.1%
Sodium (g) (including from table salt)	3.8	3.1	2.8	2.8	2.7	2.7	2.7	-28.9%
Salt (g)	9.5	7.8	7	7	6.8	6.8	6.8	
Sodium (g) (excluding from table salt)	3.0	2.7	2.5	2.5	2.4	2.4	2.4	-20.0%
Salt (g)	7.5	6.8	6.3	6.3	6.0	6.0	6.0	

¹⁴ This per capita data does not account for differences by age or sex but it does allow for changes in the numbers in the population of Scotland to be accounted for.



8. Top 20 food and drink categories contributing to purchase of total calories, total fat, saturated fat, total sugars and sodium in Scotland

Annex 3 shows the top 20 food and drink categories contributing to total purchase of calories, total fat, saturated fat, total sugar and sodium, alongside a comparison of their contributions in 2010. A list of all categories used in the analysis is provided in Annex 1, and definitions for the top 20 contributing categories are provided in Annex 2. The top 20 categories represented the majority of purchase into the home in Scotland in 2016.

“Discretionary”¹⁵ products such as cakes, pastries, biscuits, confectionery, crisps and savoury snacks and regular soft drinks (see table 2 below) were amongst the top contributors to take home purchase of calories in 2016, together contributing 21.3%. Outwith the top 20 contributors, puddings, desserts, ice-cream, edible ices and frozen dairy desserts contributed an additional 2.9% to purchase of calories in 2016. Similarly, these products contributed around 25% to total purchase of total fat, 28% to total purchase of saturated fat, 37% to total purchase of sugar and 11% to purchase of sodium in 2016.

¹⁵ Discretionary foods are items of food and drink which are high in calories and/or fats, sugar or salt, low in nutritional value, and which aren't required for our health.



Table 2:

Contribution of discretionary foods and drinks to purchase of total calories, total fat, saturated fat, total sugar and sodium in Scotland, 2016

Category	% contribution in 2016 to purchase of :				
	Calories	Total fat	Saturated fat	Total sugar	Sodium
Cakes and pastries (ambient)	3.0	3.9	4.0	5.4	2.2
Total biscuits	6.6	6.9	8.7	7.0	3.4
Total confectionery (ambient)	5.3	5.4	8.0	11.8	0.9
Crisps and savoury snacks	3.7	5.3	1.6	0.5	3.4
Regular soft drinks	1.6	n/a	n/a	6.8	0.3
Puddings and desserts	1.3	1.3	2.0	2.3	0.5
Ice-cream	1.0	1.2	2.1	1.9	0.2
Edible ices and frozen dairy desserts	0.6	0.9	1.5	1.1	0.1
TOTAL	24.2	24.9	27.9	36.8	11.0

The data also shows some small changes in the contribution of these categories to purchase of calories and nutrients. For example, the contribution of confectionery to purchase of calories has increased since 2010.



9. Trends in annual purchase into the home in Scotland of discretionary categories between 2010–2016

In addition to presenting trends in *total* food and drink purchase since 2010, this section includes trends in the purchase of some less healthy and discretionary foods and drinks. These types of foods and drinks contribute considerably to purchase of calories, fats, sugar and salt (as demonstrated in section 10).

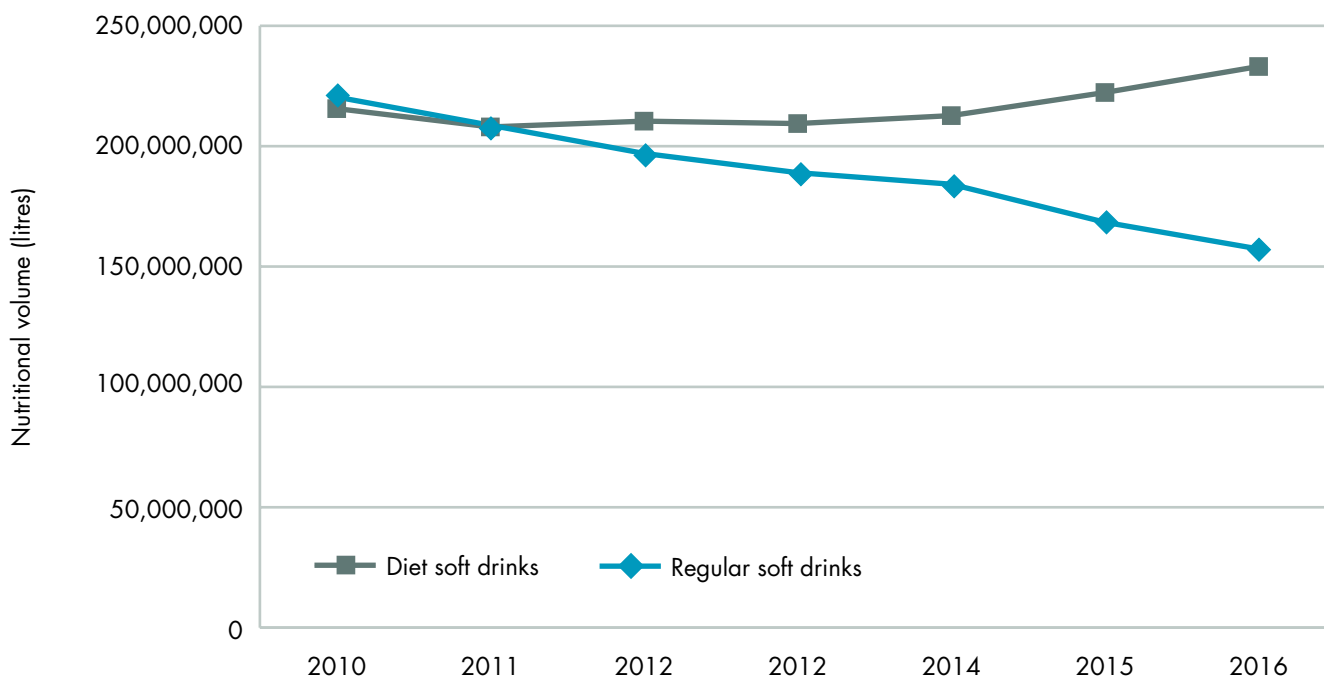
Since 2010, the total volume of food and drink purchase has increased by almost 4%. However, some of this increase relates to increases in the population of Scotland (+2%).¹⁶ An increase in purchase above 2% would therefore suggest an increase in purchase per capita.

9.1. Soft drinks

Purchase of diet soft drinks has increased by around 8% since 2010, to over 230 million litres in 2016. Purchase of regular soft drinks has continued to decline, with a 29% drop since 2010 to around 160 million litres (figure 1).

Figure 1:

Annual purchase of regular and diet soft drinks into the home in Scotland (2010–2016)



¹⁶ Per capita trends in calorie and nutrient purchase have been provided in section 9.

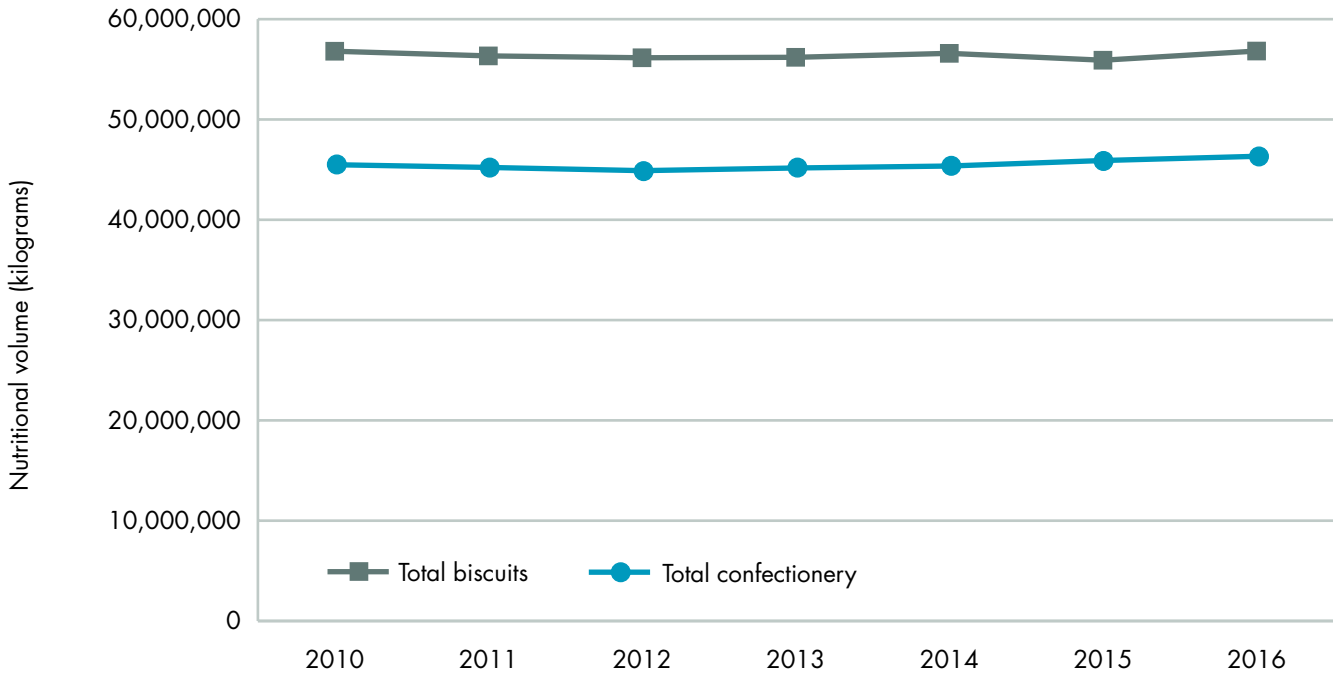


9.2. Biscuits and confectionery

Figure 2 below shows that there has been little change in the volume of biscuits and confectionery purchased since 2010. Biscuit purchase changed by less than 0.1%, below the average growth of the market overall, confectionery increased by 3.7%.

Figure 2:

Annual purchase of biscuits and confectionery into the home in Scotland (2010–2016)

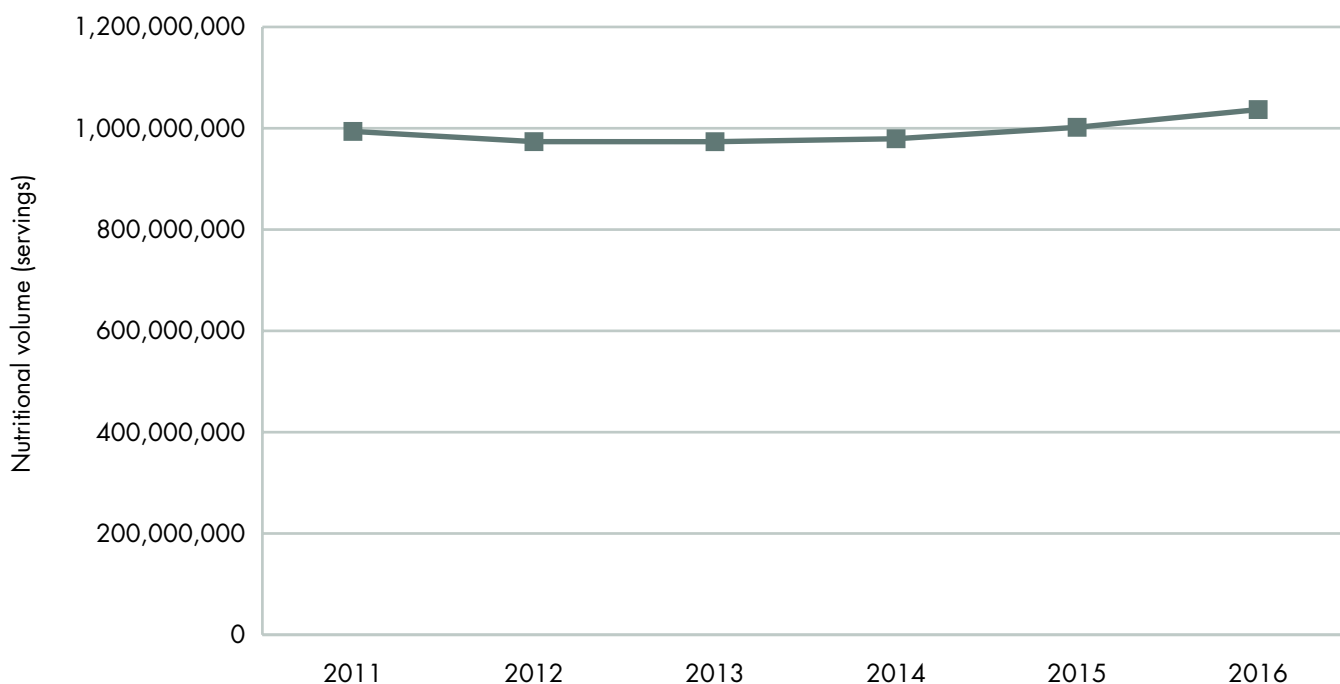


9.3. Cakes and pastries

As shown in Figure 3 below, there were over 1 billion servings of cakes and pastries purchased in 2016 compared to around 990 million servings purchased in 2011¹⁷ and increase of 4.3%.

Figure 3:

Annual purchase of cakes and pastries into the home in Scotland (2011–2016)



¹⁷ KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g. This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries.

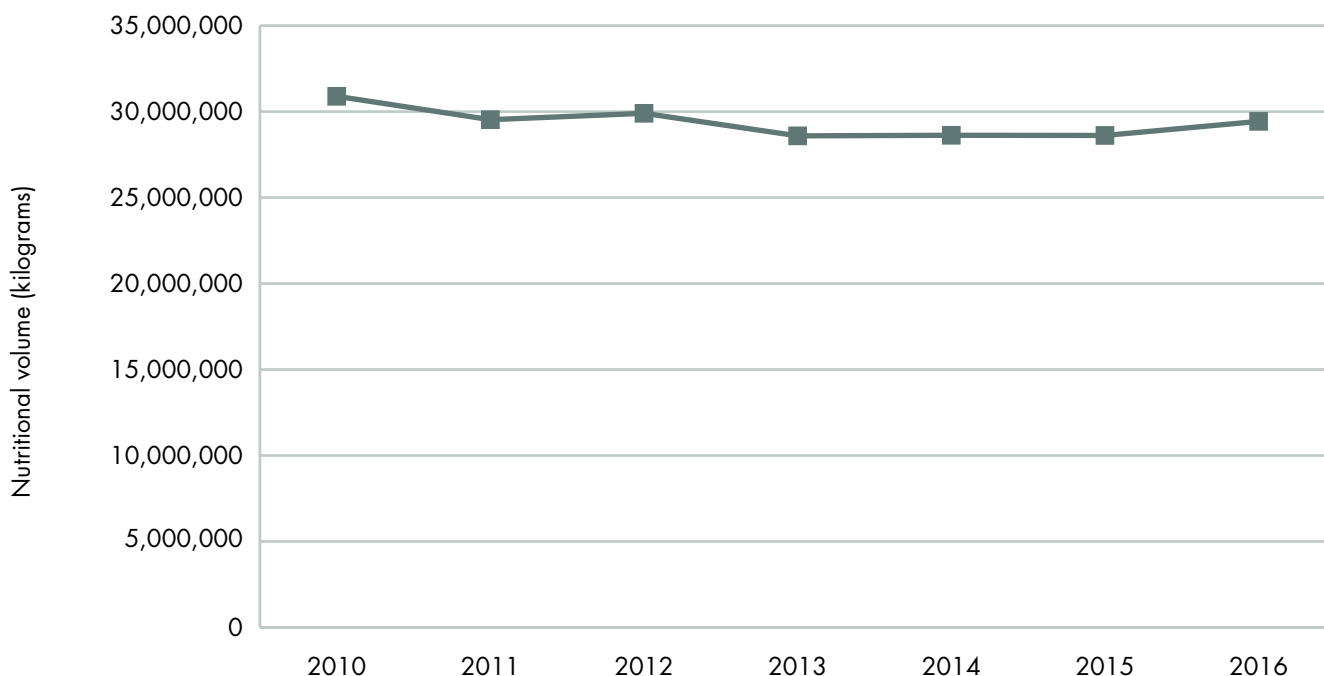


9.4. Puddings and desserts

Since 2010, purchase of puddings and desserts has decreased from almost 31 million kilograms to almost 29.5 million kilograms, a drop of 4.7% (figure 4). However, since 2013 purchase of puddings and desserts has remained relatively unchanged.

Figure 4:

Annual purchase of puddings and desserts into the home in Scotland (2010–2016)

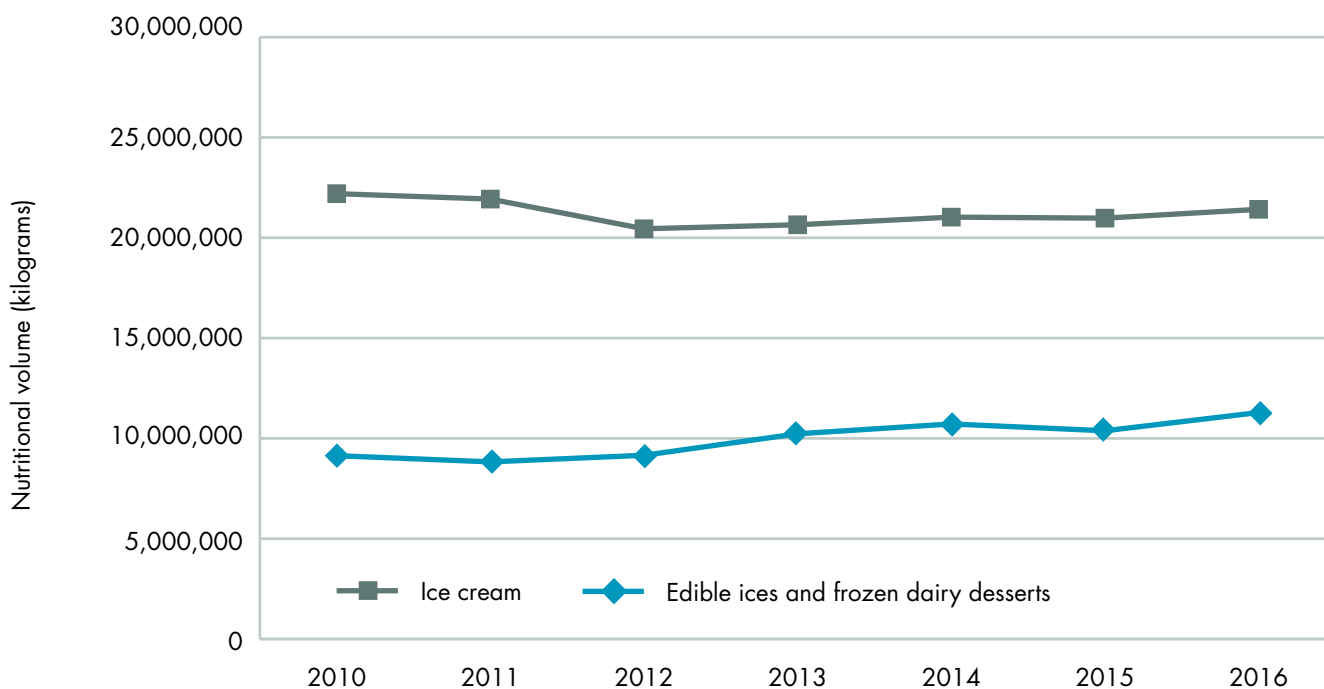


9.5. Ice-cream, edible ices and frozen dairy desserts

While there has been a drop of 3.5% in the purchase of ice-cream since 2010, this has been more than offset by a large increase of 23.5% in the purchase of edible ices and dairy desserts with over 11 million kilograms purchased in 2016 (figure 5).

Figure 5:

Annual purchase of ice-cream, edible ices and frozen dairy desserts into the home in Scotland (2010–2016)

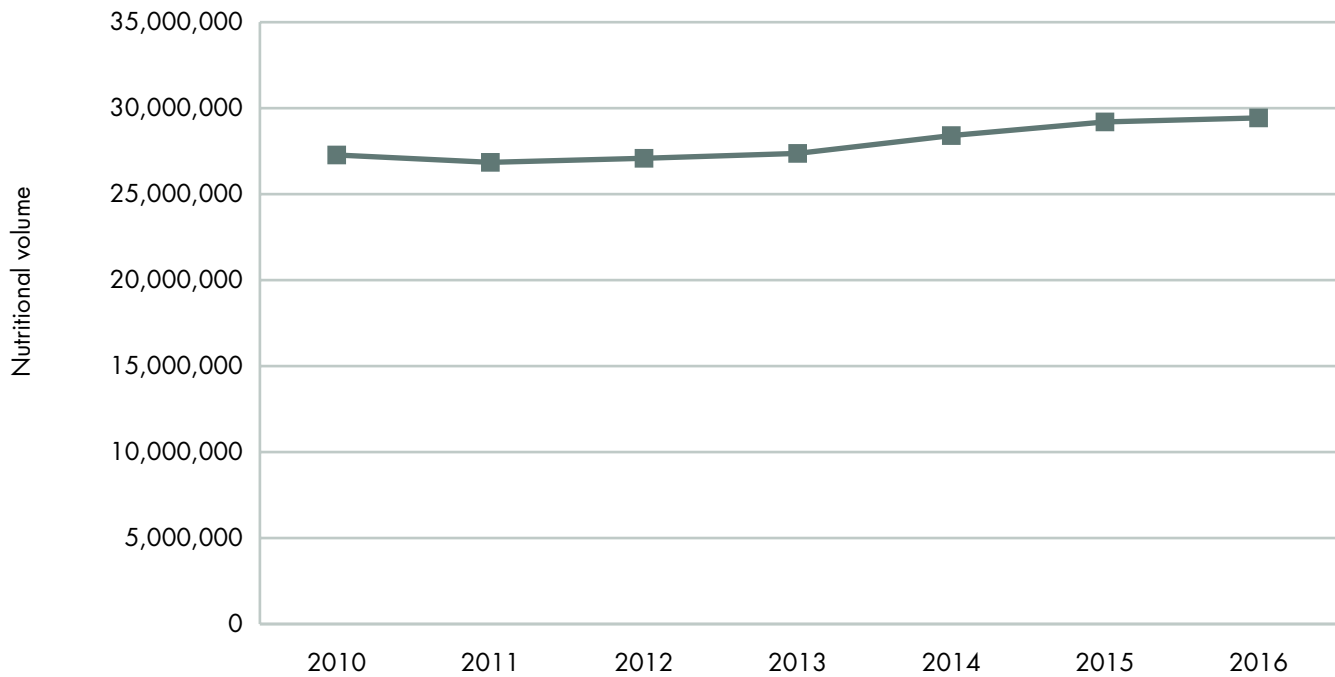


9.6. Crisps and savoury snacks

Purchase of crisps and savoury snacks has increased from just over 27 million kilograms in 2010 to almost 29.5 million kilograms in 2016, representing a 7.9% increase (figure 6).

Figure 6:

Annual purchase of crisps and savoury snacks into the home in Scotland (2010–2016)



10. Change in top 20 contributors to total sugar purchase in Scotland (2012–2016)

Table 3 below shows the top 20 contributors to sugar purchase. The percentage change in total sugar purchased (column C) takes account of both the change in volume purchased from each category (column A) and any change in total sugar content (g per 100g, column B).

The data shows that, although there are large reductions in sugar purchase from some categories (including within regular soft drinks and breakfast cereals), there are also large increases in sugar purchase from others (including breakfast spreads, ice-cream, edible ices and frozen dairy desserts and confectionery).

This could be due to increases in volume purchase, changes in the composition of particular products within a category and/or a shift in purchase towards higher sugar products within a category.



Table 3:

Table 3: Change in total nutritional volume and total sugar purchase of top 20 contributors (2012 vs 2016)

Category	Column A % change in nutritional volume	Column B % change in sugar content g/100g	Column C % change in total sugar (kg)
Breakfast Spreads	2	14	16
Ice-Cream	5	4	9
Edible Ices and Frozen Dairy Desserts	23	2	26
Total Confectionery (Ambient)	6	2	9
Total Vegetables & Salad Leaves	14	-3	11
Cakes and Pastries	6	0	6
Total Puddings & Desserts	-2	3	6
Total Fruit	9	1	2
Savoury Home Cooking (excl. Salt)	-2	0	-1
Total Biscuits	2	1	3
Total Milk	3	1	5
Total Pickle, Table Sauce & Condiment	5	-6	-1
Total Bread & Morning Goods (Ambient)	4	5	10
Total Alcohol	4	-30	-27
Pure Fruit Juice	-3	-1	-4
Table Sugar	-13	0	-13
Total Breakfast Cereals (incl. Rolled Oats and Oatmeal)	-2	-9	-11
Sweet Home Cooking (excl. Sugar)	-3	-12	-15
Regular Soft Drinks	-20	-26	-17



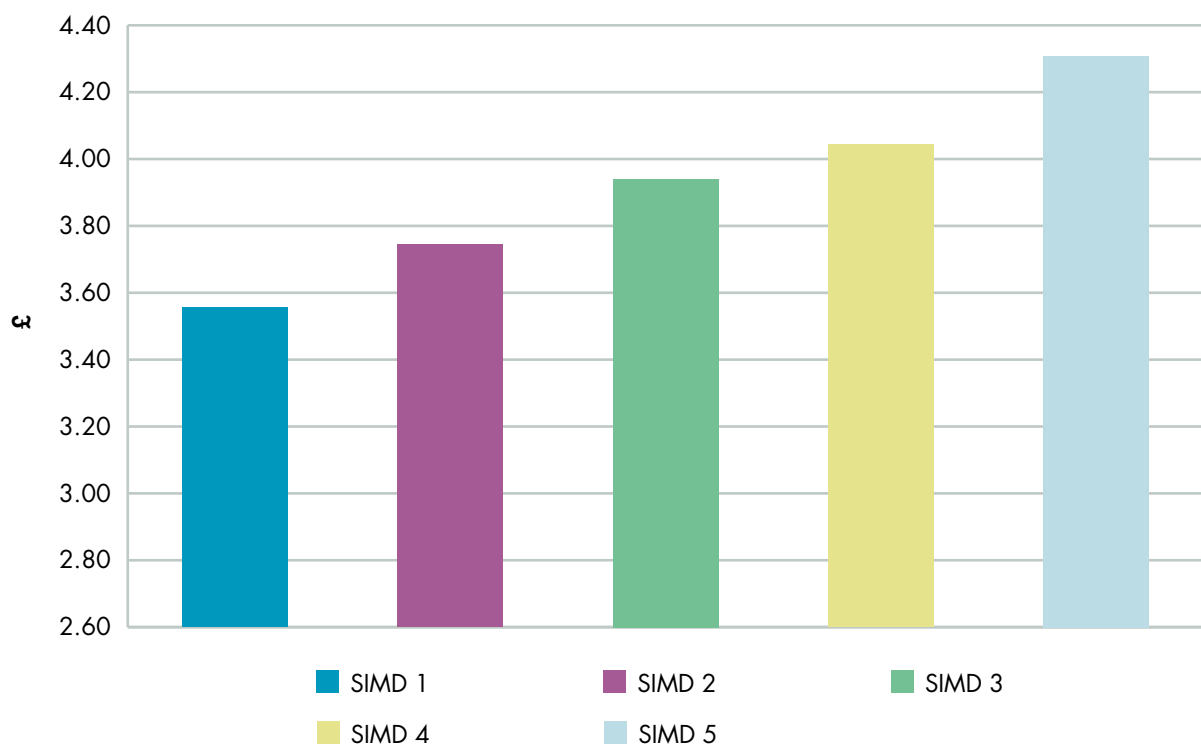
11. Purchase of healthier and less healthy categories by SIMD

Figure 7 below shows the difference in standardised spend (per 2,000 kcal¹⁸) on food and drink, by SIMD group in 2016. The results showed that, with decreasing deprivation, spend per 2,000 kcal of total food and drink increased.

Figures 8 and 9 below display differences in purchase of some healthier and less healthy categories by area deprivation. In 2016, the 20% of households living in the most deprived areas (SIMD 1) purchased a greater proportion of their calories from confectionery, biscuits, regular soft drinks and plain bread and a smaller proportion of their calories from fruit, vegetables and plain starchy carbohydrates such as pasta, noodles and couscous (not including bread or potatoes) compared to the least deprived (SIMD 5).

Figure 7:

Spend per 2,000 kcal of total food and drink, by SIMD (2016)



¹⁸ This analysis was standardised using the recommended daily energy intake for an average adult female.



Figure 8:

% of total take home calories from healthier categories, by SIMD (2016)

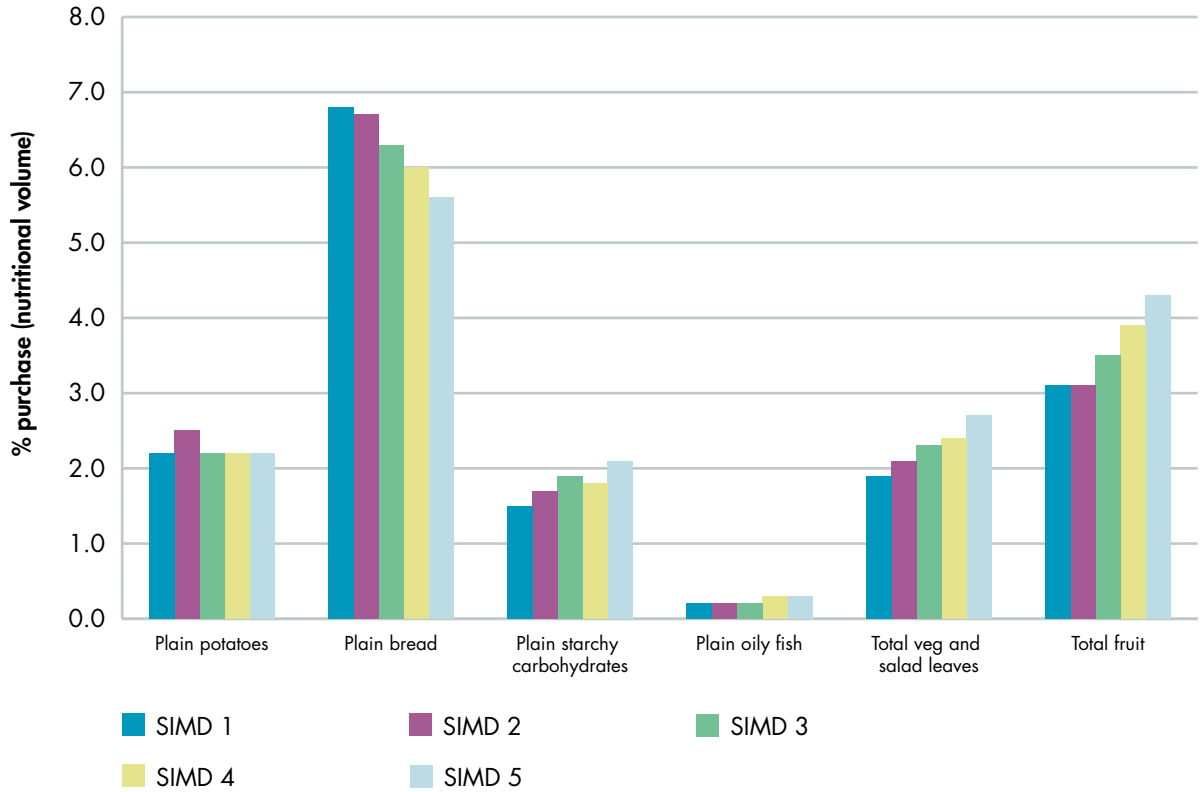
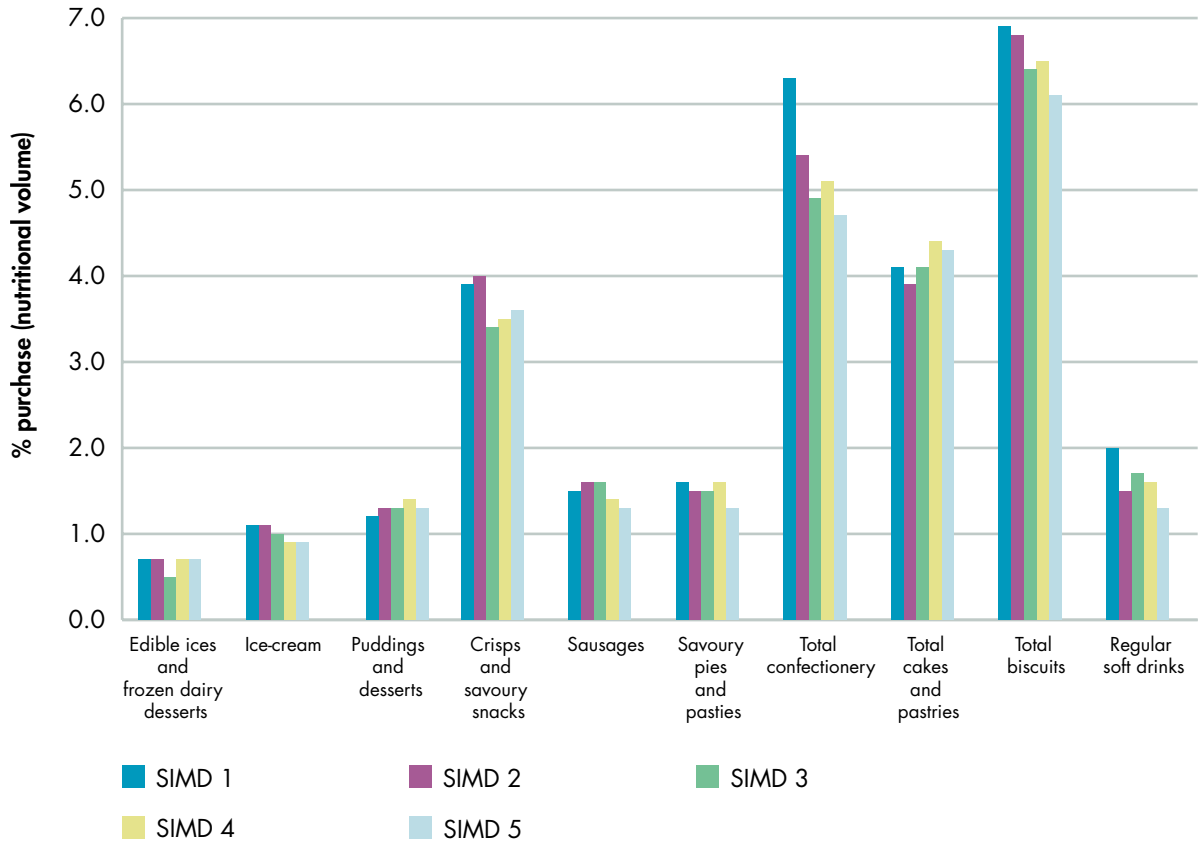


Figure 9:

% of total take home calories from less healthy categories, by SIMD (2016)



12. Retail price promotions in Scotland

Data presented within this section relates only to **price** promotions, and does not include other marketing and promotional strategies such as product placement or advertising. Price promotions refer to:

- Temporary price reductions (TPR): a temporary reduction in the cost of a product, e.g. 10% off.
- Y for £X: an offer of buying a set of products for a set price, e.g. two for £2.
- Multi-buys: including buy one get one free or three for two deals.
- Other price promotions: includes extra free, meal deal, free gift/sample deals.

12.1. Proportion of take home calories and nutrients purchased on price promotion

As shown in figure 10, price promotions accounted for 36% of the calories purchased into the home in 2016. Purchase of other nutrients on price promotion was similar, ranging from 31% for sodium to 39% for total fat and saturated fat.

Figure 10:

Proportion of take home nutritional volume and purchase of calories and nutrients on price promotion from total food and drink in Scotland (2016)

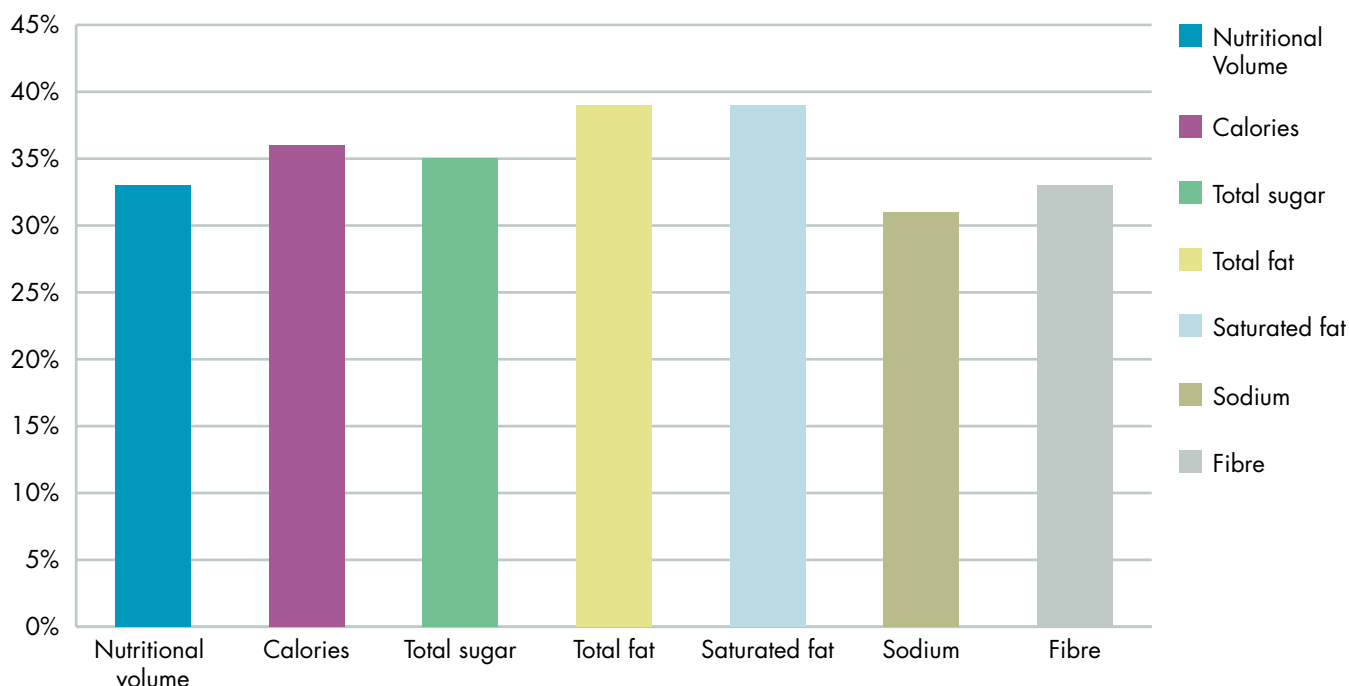
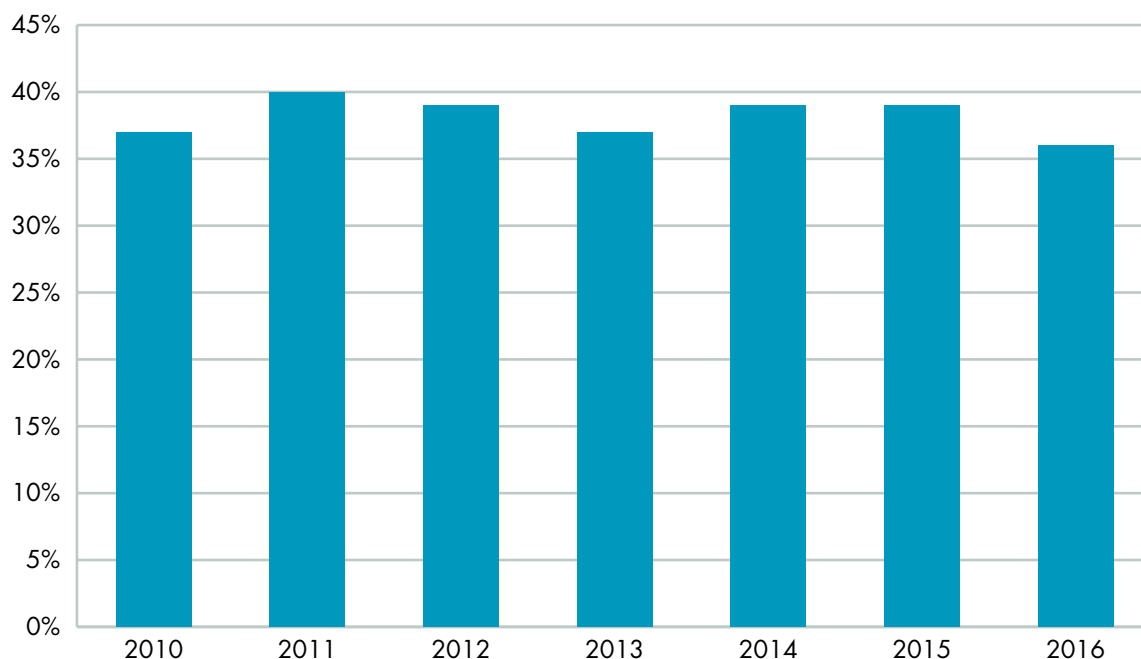


Figure 11 below shows that the proportion of calories purchased on price promotion¹⁹ has fluctuated since 2010, reaching a peak of 40% in 2011. In 2016, the proportion purchased on promotion was similar to that in 2010 (37% vs 36%).

Figure 11:

Percentage calories purchased on price promotion in Scotland from total food and drink (2010–2016)



¹⁹ Note, the previous report (published in 2016) presented combined data for 2014/15 (Sept-Sept) whereas the current report presents data for individual calendar years (i.e. 2014, 2015 etc.) and therefore the results presented here for 2014 and 2015 are different to those previously published for 2014/15.



12.2. Purchase on price promotion by SIMD

The results suggested that there was little difference in purchase of calories purchased on promotion according to SIMD, as shown in figure 12, despite figure 7 above showing that there is a clear difference in overall spend on food and drink by SIMD. However, analysis by income (figure 13) does suggest that those with the lowest incomes spend a lower proportion of their food and drink budget on promotion, compared to those in the highest income groups (33% vs 39%). SIMD takes into account income in addition to other locational factors such as health, housing, education, employment and crime, which might explain the variation in findings below.

Figure 12:

Percentage of total calories purchased into the home on price promotion by SIMD in Scotland (2016)

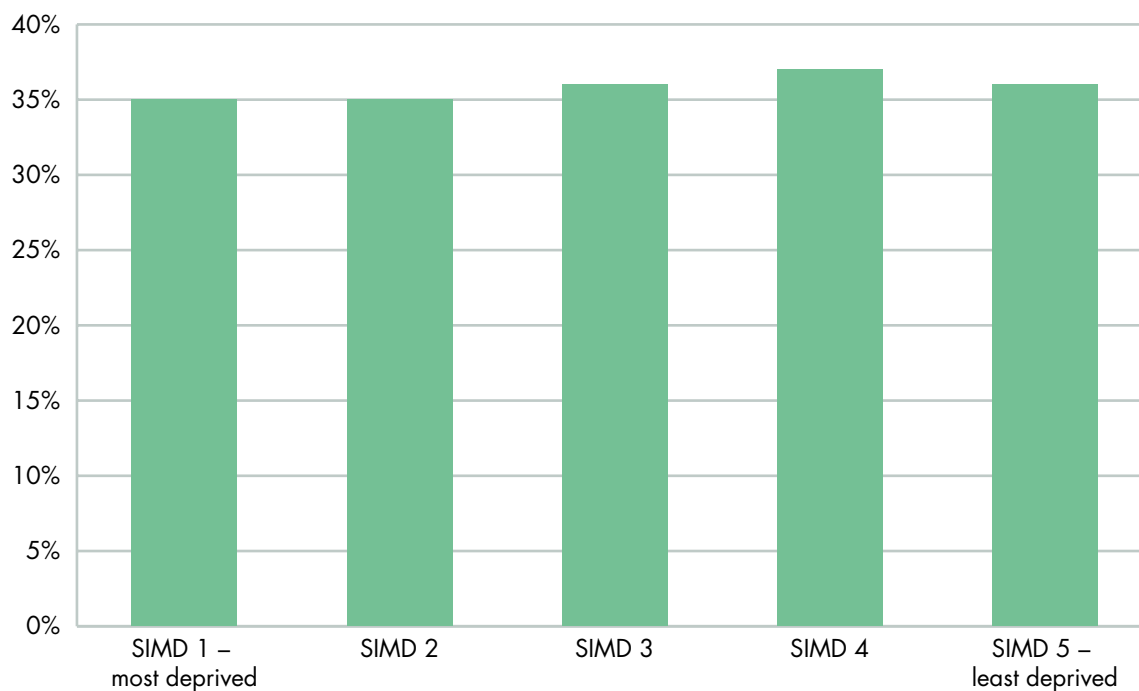
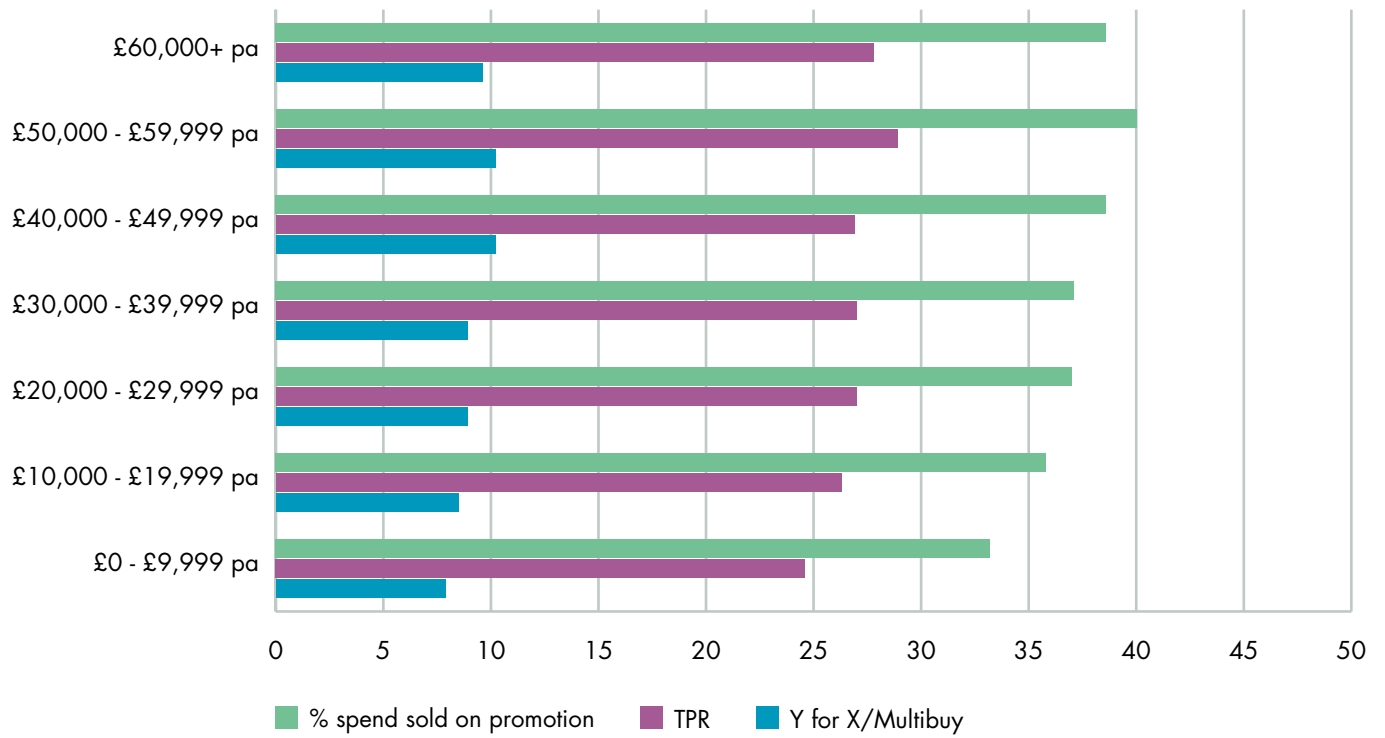


Figure 13:

Percentage spend on promotion by household income level: Scotland take home food and drink 2016

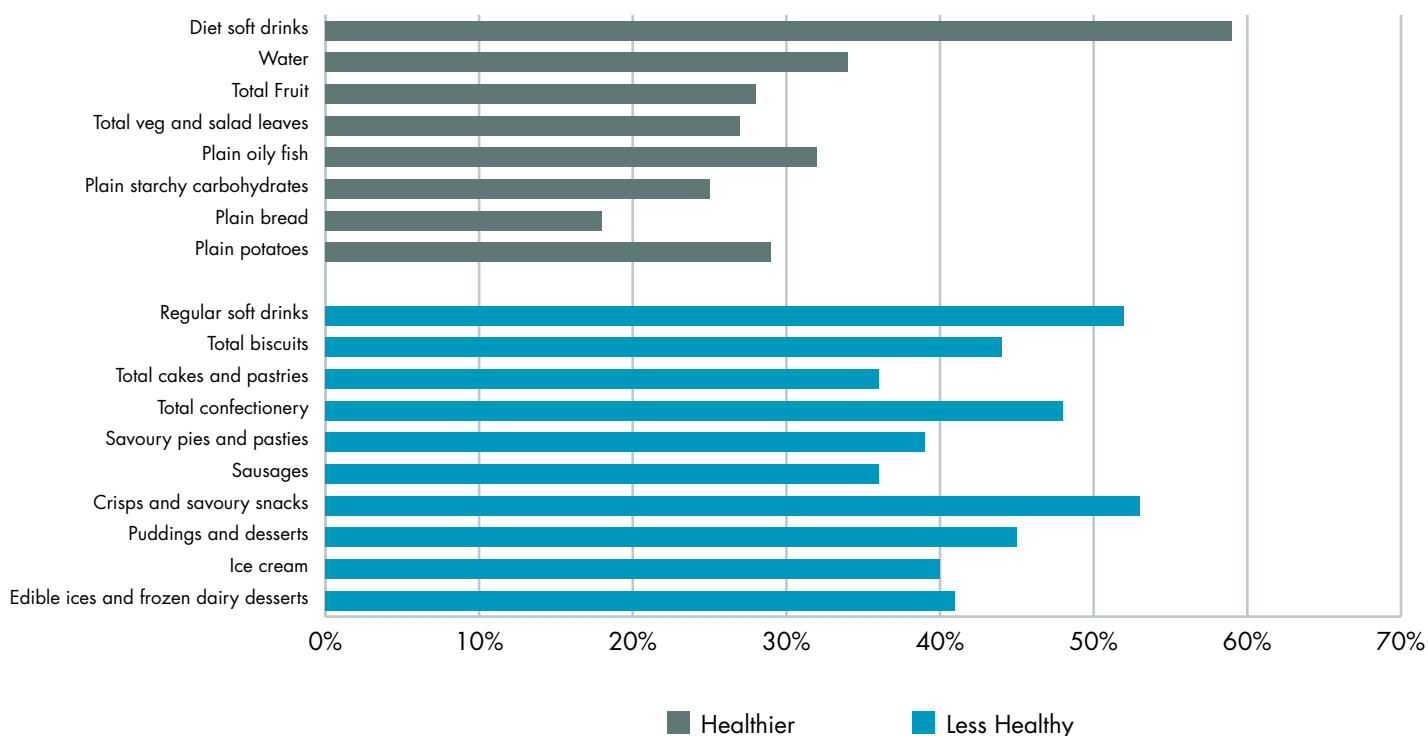


12.3. Balance of price promotions: a comparison across a selection of healthier and less healthy product categories

Data previously published by FSS²⁰ showed that the balance of price promotions tended to be in favour of less healthy and discretionary categories. Figure 14 below shows that this has not changed, with purchase on price promotion of most less healthy categories exceeding the healthier categories. For example, just 18% of plain bread was purchased on promotion on 2016 compared with 53% of crisps and savoury snacks. More positively, the purchase of soft drinks on price promotion has remained in favour of diet drinks, however price promotions still account for over half of all purchase of regular soft drinks in Scotland.

Figure 14:

Percentage Nutritional volume purchased on total price promotion in Scotland (2016); healthier vs less healthy



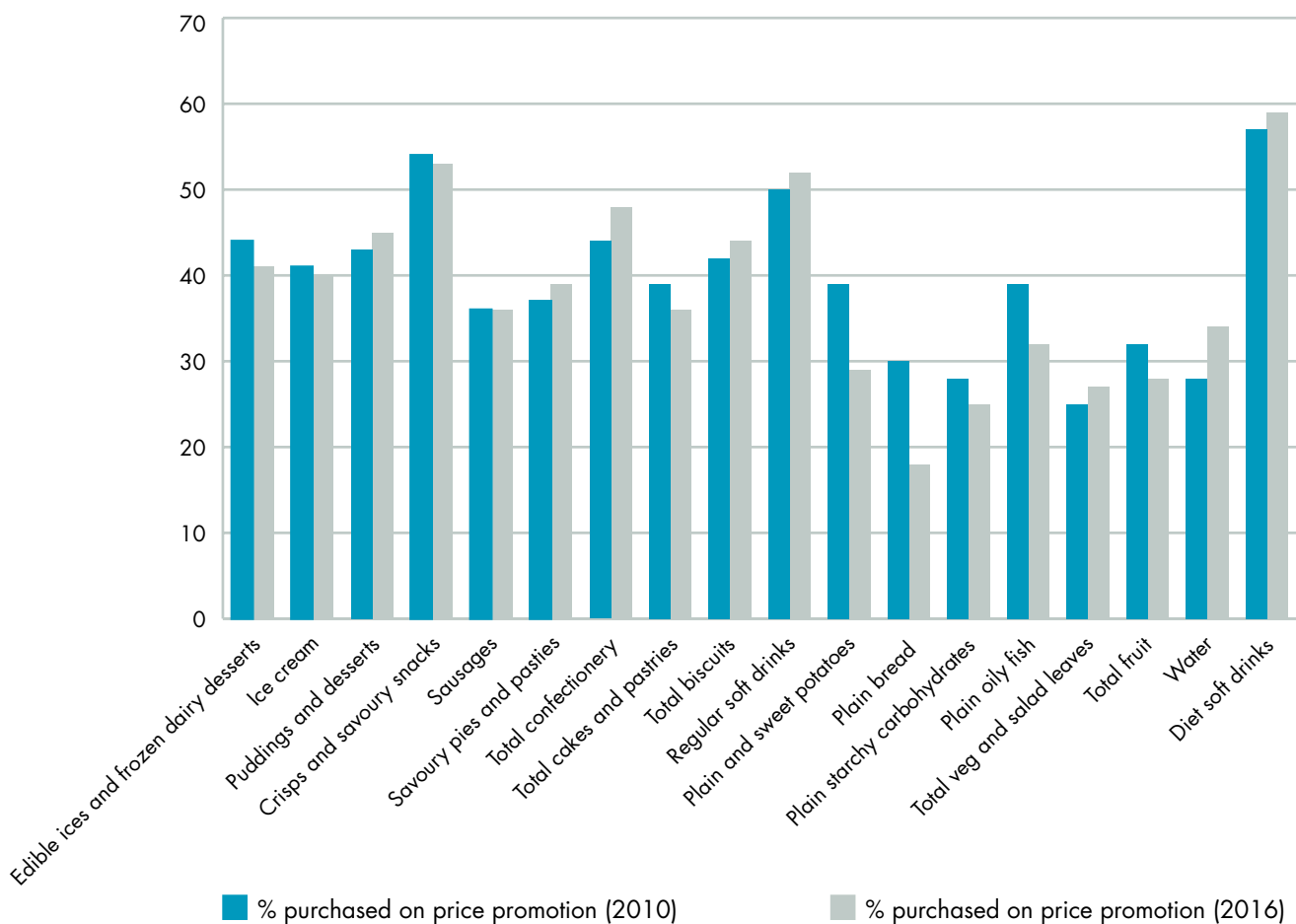
²⁰ Food Standards Scotland: Monitoring of foods and drinks purchased into the home in Scotland using data from Kantar Worldpanel (2016): <http://www.foodstandards.gov.scot/publications-and-research/monitoring-foods-and-drinks-purchased-into-the-home-in-scotland>



Figure 15 below shows the percentage purchase on price promotion for healthier and less healthy categories in 2010, compared with 2016. While there has been some reductions in purchase on price promotion within the less healthy categories (edible ices and frozen dairy desserts, and cakes and pastries), these were generally quite small and for some of the other less healthy categories there were small increases in purchase. For example, purchase of confectionery increased from 44% in 2010 to 48% in 2016.

There was a large reduction in purchase on promotion within plain potatoes (falling from 39% to 29%) plain bread (falling from 30% to 18%), and oil rich fish (falling from 39% to 32%). There were small increases in purchase of vegetables, water and diet soft drinks on price promotion since 2010. However, only three out of the eight healthier categories showed an increase in purchase on promotion compared with five out of ten of the less healthy categories.

Figure 15:
Percentage nutritional volume purchased on total price promotion in Scotland (2010 vs 2016);
healthier vs less healthy



12.4. Balance of price promotions: a comparison by type of price promotion

Since 2010, temporary price reductions (TPR) have remained the most common form of price promotion in Scotland and, in 2016, accounted for 26% of all calories purchased (figure 16). Y for £X type promotions have declined over this time, falling from 13% of calorie purchase in 2010 to just 8% in 2016. Similarly, multi-buys fell from 2% of calorie purchase to nearly zero.

Figure 16:

Percentage calories purchased on price promotion in Scotland from total food and drink by promotion type (2010–2016)

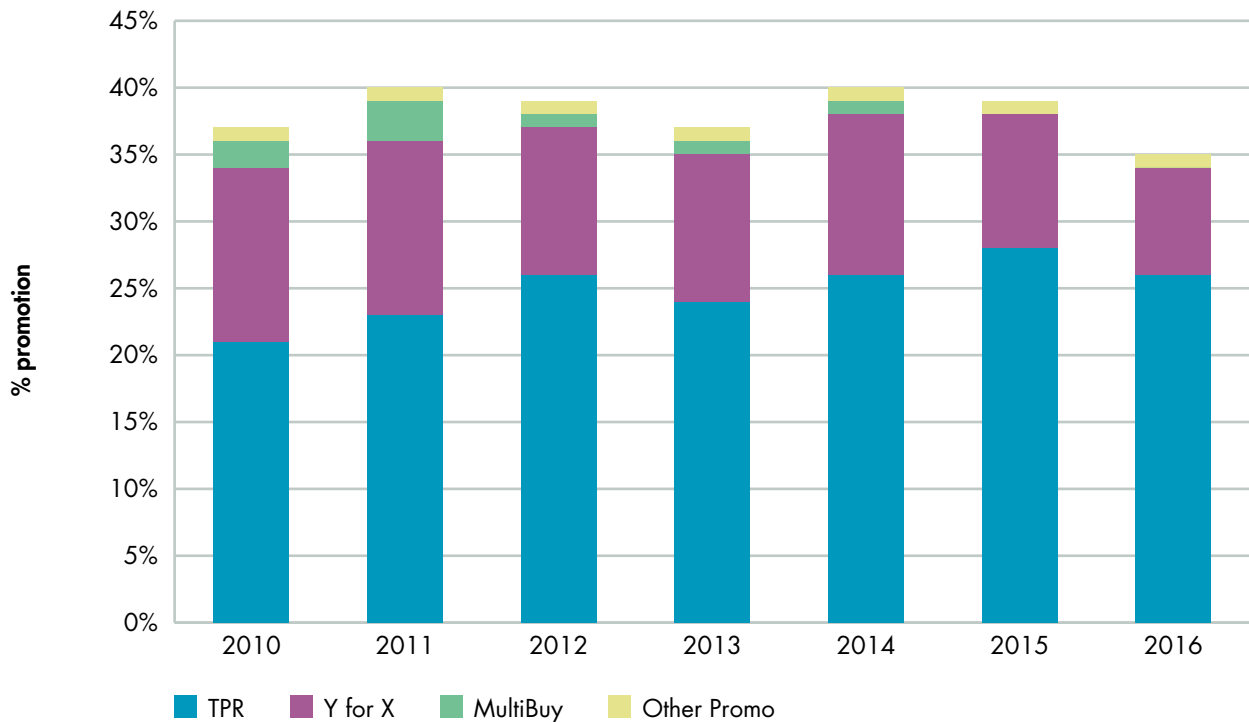


Figure 17 below shows the spread of different price promotions across the healthier and less healthy categories.

Most categories follow the same overall trend in terms of type of promotion described above for total food and drink: TPR is the most common, followed by Y for £X deals and only a small proportion (if any) coming from multi-buys and other price promotions. From the categories displayed below (with the exception of soft drinks and water), less healthy foods appear to be more commonly purchased using Y for £X deals than the healthier foods. Using the most extreme example, 13% of puddings and desserts were purchased on a Y for £X deal compared to just 1% of vegetables and salad leaves. However it is possible that, due to the perishability of many of these healthier categories, retailers and consumers avoid Y for £X and other “bulk buy” style offers to minimise the potential for waste.

Figure 17:

Percentage nutritional volume purchased on price promotion in Scotland (2016); healthier vs less healthy by promotion type

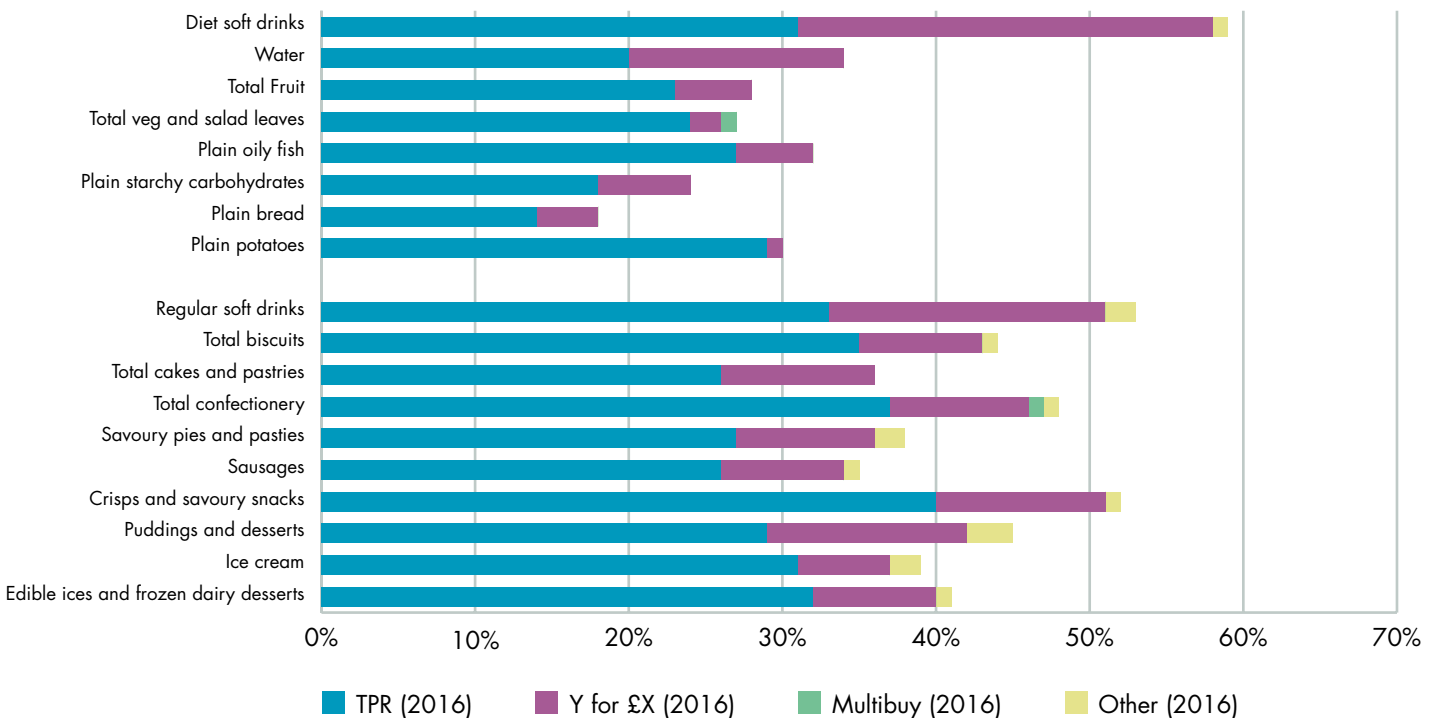


Table 4 shows the changes in purchase of these healthier and less healthy categories on the different types of price promotion between 2010–2016. The table shows that purchase on TPR increased for most of these categories, with the exception of water and potatoes where purchase on TPR decreased. In contrast, purchase on Y for £X decreased for most of the categories below, with the most extreme example being plain bread where purchase on Y for £X dropped from 21% in 2010 to just 4% in 2016. While purchase of these categories on a multi-buy offer was already low in 2010, purchase on this type of deal dropped even further by 2016. For example in 2010, 5% of diet soft drinks were purchase on a multi-buy compared to 0% of purchase in 2016.



Table 4:

Percentage nutritional volume purchased on price promotion in Scotland by promotion type; healthier vs less healthy products (2010 vs 2016)

	TPR		Y for £X		Multibuy		Other	
	2010	2016	2010	2016	2010	2016	2010	2016
Diet soft drinks	22	31	29	27	5	0	1	1
Water	20	20	6	14	1	0	0	0
Total fruit	22	23	9	5	1	0	0	0
Total vegetables and salad leaves	20	24	4	2	1	1	1	0
Plain oil rich fish	26	27	10	5	2	0	0	0
Plain starchy	12	18	14	6	0	0	1	0
Plain bread	9	14	21	4	0	0	0	0
Plain potatoes	31	29	7	1	1	0	0	0

Edible ices and frozen dairy desserts	27	32	12	8	3	0	2	1
Ice-cream	26	31	10	6	3	0	2	2
Puddings and desserts	19	29	19	13	4	0	1	3
Total biscuits	31	35	7	8	3	0	1	1
Total cakes and pastries ²¹	22	26	13	10	2	0	2	1
Regular soft drinks	19	33	24	18	4	0	2	2
Total confectionery	19	37	19	9	4	1	1	1
Savoury pies and pasties	20	27	14	9	3	0	1	2
Sausages	21	26	12	8	1	0	2	1
Crisps and savoury snacks	19	40	28	11	4	0	2	1

Note: due to rounding, the total purchase on promotion may differ slightly to values presented in previous figures

²¹ KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g.

This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries.



12.5. Purchase on price promotion by retailer

This section presents data by retailer on price promotions. Data has been included for the top 5 retailers in Scotland and the discounters; Tesco, Asda, Morrisons, Sainsbury's and The Co-operative, and Aldi and Lidl combined. Together, these retailers contribute 83% of total take home spend and 85% of all calories purchased into the home in Scotland. Specific data for other retailers (such as Marks and Spencers, Waitrose and Poundland) has not been presented due to smaller sample numbers and it is therefore important to note that these and other retailers contribute around 15% of calories purchased into the home in Scotland.

Data on volume purchase by retailer, available for publication, were used as the standardised method to compare differences between retailers. Results standardised by calories are generally similar to those standardised by volume.

Figure 18 below shows the proportion of nutritional volume purchased on price promotion, by retailer. Compared to the average (figure 10), the data shows that purchase on price promotion is higher within the top 5 retailers. The discounters showed lower purchase on price promotion compared to the average.

Figure 18:

Proportion of nutritional volume purchased on price promotion from total food and drink in Scotland, by retailer in 2016

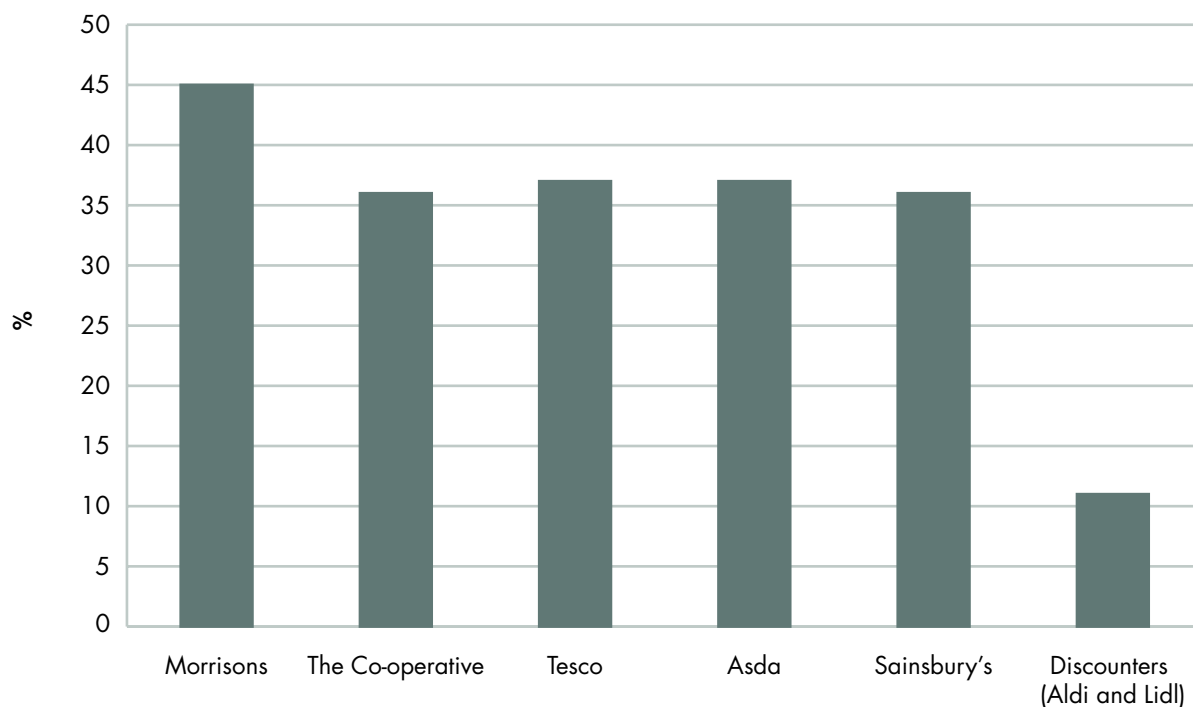
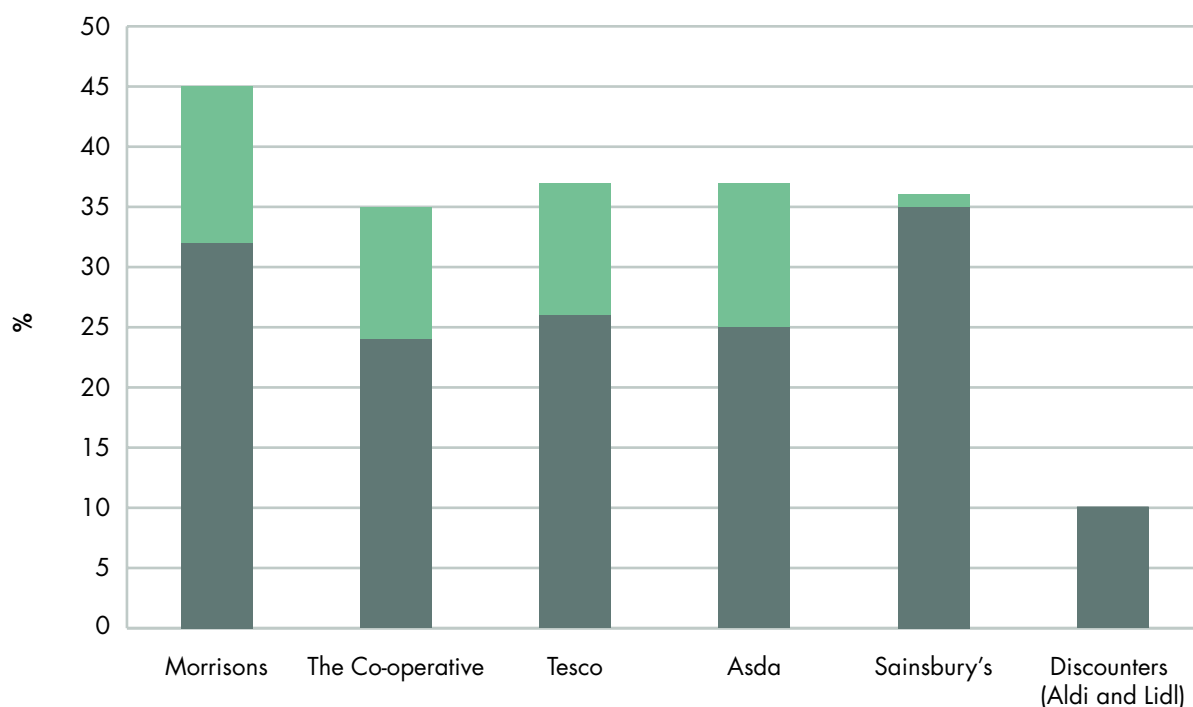


Figure 19 below shows the proportion of nutritional volume purchased through different types of price promotion, by retailer. Note, due to smaller sample sizes data for Y for £X and multi-buy promotions have been combined. However, as purchase of multi-buys such as BOGOFs and 3 for 2 are low overall, it can be assumed that the majority of purchase on Y for £X and multi-buys combined can be attributed to Y for £X deals.

Each of the retailers below followed a similar pattern to the average (figure 19) whereby the majority of purchase on price promotion is through a TPR. However, whilst Morrisons, The Co-operative, Tesco and Asda showed some level of total purchase through Y for £X and Multi-buy deals, these types of promotions were very low within Sainsbury's and were non-existent within the discounters.

Figure 19:

Proportion of nutritional volume purchased on price promotion from total food and drink in Scotland, by retailer and promotion type in 2016



The data showed variability in purchase of some healthier and less healthy categories on price promotion by retailer (Table 5).²² For most of the retailers (i.e. excluding discounters) there were generally higher levels of purchase on price promotion for the less healthy categories below compared to the average levels for all purchases into the home. For example, purchase of confectionery on price promotion was over 70% within three of the top retailers compared to an average of 48% for total food and drink purchase into the home.

More positively, there were also some examples of this within the healthier categories presented below. For example, purchase of oil rich fish on price promotion within several of the retailers was higher than the average of 32% with levels reaching over 40% in some cases.

²² Data on ice-cream, edible ices and frozen dairy desserts and potatoes by retailer was not purchased by FSS and are therefore not presented.



Table 5:

Percentage nutritional volume purchased on total price promotion in Scotland ;
some healthier vs. less healthy categories, by retailer in 2016

	Morrisons	The Co-operative	Tesco	Asda	Sainsbury's	Discounters (Aldi and Lidl)	AVERAGE PURCHASE ON PRICE PROMOTION (TOTAL SCOTLAND)
Crisps and savoury snacks	75	70	67	59	64	8	53
Sausages	49	35	46	42	38	8	36
Savoury pies and pasties	51	51	48	38	40	13	39
Puddings and desserts	61	45	56	54	44	3	45
Total confectionery	74	72	71	55	66	10	48
Total Cakes and Pastries	62	40	46	45	47	6	36
Total biscuits	71	59	52	51	51	9	44
Regular soft drinks	60	55	55	54	40	15	52

Plain bread	28	24	15	15	22	7	18
Plain starchy carbohydrates	35	35	29	24	30	6	25
Plain oil rich fish	46	no data due to small sample size	34	41	49	10	32
Total veg and salad leaves	36	37	23	29	25	25	27
Total Fruit	34	20	30	30	28	22	28
Water	49	no data due to small sample size	36	40	19	21	34
Diet soft drinks	79	69	74	61	54	12	59



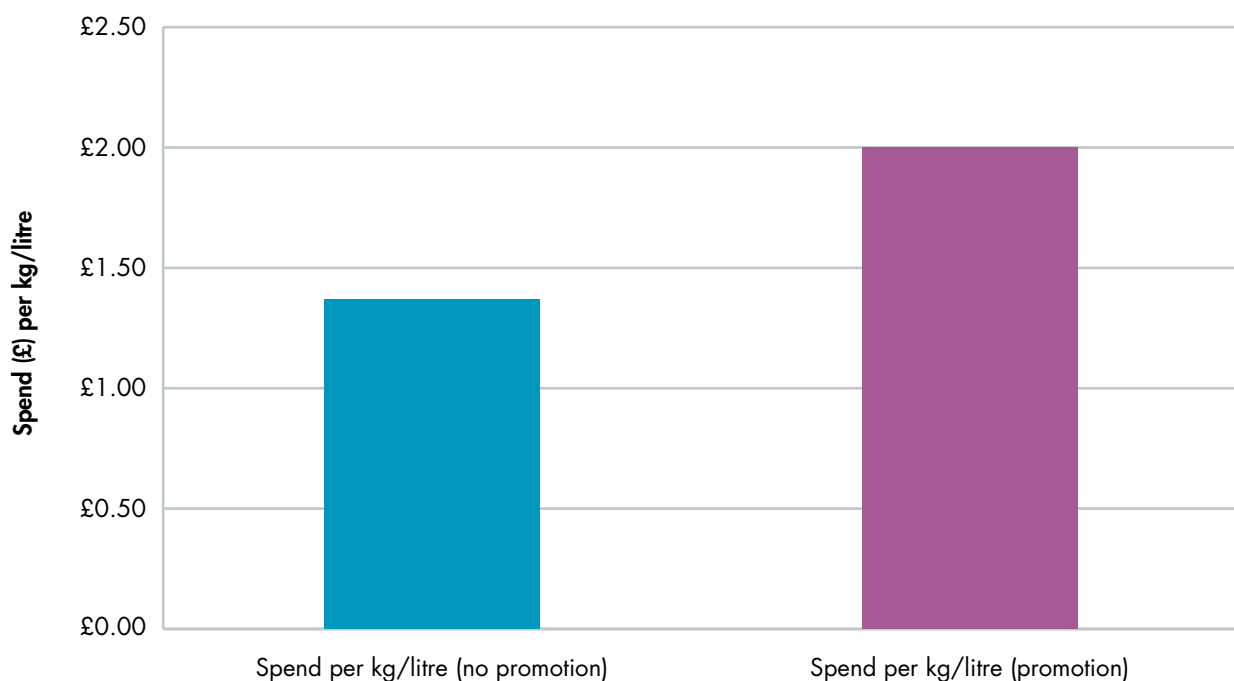
13. Spend per kilogram on and off price promotion

Figure 20 below shows a comparison of spend per nutritional volume (kg or litre) of total food and drink purchased in Scotland with and without a promotion. Spend per volume has been used as an estimate of cost. Where spend per volume on promotion is lower than the spend per volume without a promotion, this suggests that products on promotion within this category are (on average) cheaper than those without a promotion. Where spend per volume on promotion is higher than the spend per volume without a promotion, this suggests that products on promotion within this category are (on average) more costly than those without a promotion.

The data indicates that, the spend per kg of food and drink without a price promotion was £1.37 whereas the spend per kg of food and drink with a price promotion was £2.00. This suggests that, overall, on average it was more expensive to buy food and drink on price promotion than it was without a price promotion. This may be explained by factors such as the mix of products which are promoted. For example, the cheapest value items within a category may be less promoted than branded, luxury or new products (discussed further in Section 17).

Figure 20:

Spend per nutritional volume (£/kg or litre) of total food and drink with and without price promotions (2016)



Spend per nutritional volume was also looked at in relation to a selection of healthier and less healthy categories (Table 6). There was no consistent pattern. For a slightly higher proportion of the less healthy categories (7 out of 10) there were savings associated with buying products on price promotion compared to 5 out of 8 of the healthier categories. However, it was generally more expensive to buy water, fruit, oil rich fish, and ice-cream, edible ices and dairy desserts and biscuits on price promotion than without promotion.

Table 6:

Difference between spend per nutritional volume (NV, £/kg or litre) on and off promotion for healthier and less healthy categories.

Category	Spend/ NV off promotion	Spend/ NV on promotion	% increase/decrease from spend/ NV off promotion
Diet soft drinks	0.83	0.76	-8.4%
Water	0.36	0.41	13.9%
Fruit	2.05	2.34	14.1%
Vegetables	1.94	1.76	-9.3%
Oil rich fish	10.24	11.32	10.5%
Plain starchy carbohydrates	1.81	1.80	-0.6%
Plain bread	1.32	1.17	-11.4%
Plain potatoes	0.77	0.90	-16.9%

Ice-cream	1.79	2.38	33.0%
Edible ices and dairy desserts	2.81	4.36	23.5%
Biscuits	4.27	4.57	7.0%
Cakes and pastries	0.21	0.15	-28.6%
Regular soft drinks	1.00	0.86	-14.0%
Total Confectionery	7.70	7.07	8.2%
Puddings and desserts	3.71	3.28	-11.6%
Savoury pies and pasties	4.70	4.04	-14.0%
Sausages	4.43	3.91	-11.7%
Crisps and savoury snacks	6.88	6.63	-3.6%



14. Strengths and limitations

14.1. Strengths

The data set provided by Kantar Worldpanel is robust in terms of sample size, and representation of the Scottish population. The Kantar Worldpanel sample is chosen to reflect the Scottish population in terms of social class, size and type of household. Data collected from the sample is weighted up to represent all Scottish take home purchasing.

Nutrition information collected from product packaging is updated every six months, ensuring that any changes to product formulations are captured within the data set (provided they are published on the label by the manufacturer). The majority of nutrition information of products purchased by the panel is collected in this way.

Panel members scan the barcodes of all products purchased into the home, including non-food and drink products e.g. toiletries, household cleaning products. This information is used predominantly by the food and drink industry, so is not just used by those working in public health. Furthermore, the main panel is not asked specific questions relating to diet and/or health and which therefore reduces the likelihood of panel members changing their purchase patterns in response.

Trends are presented between 2010–2016, providing seven years of data. Kantar Worldpanel strive to maintain the continuity of the panel for as long as possible to ensure accuracy of trends.



14.2. Limitations

There are a number of limitations which should be considered when interpreting the data and results presented within the report:

The data presented relates to purchase only, and does not necessarily equate to consumption as waste and losses during preparation or cooking are not accounted for. Additionally, this report only contains data up to 2016, and it is acknowledged that some trends may have changed in 2017. However, we will continue to monitor this data.

The results do not provide an overall picture of food and drink purchase in Scotland, as the data excludes foods and drinks purchased OOH and from takeaways. Furthermore, the balance of food and drink purchased into the home may be affected by purchase outside the home i.e. consumers may reduce the amount of food and drink they purchase into the home if they buy more outside the home.

The results do not provide an overall picture of food and drink purchase in Scotland, as the data excludes foods and drinks purchased OOH and from takeaways. Furthermore, the balance of food and drink purchased into the home may be affected by purchase outside the home i.e. consumers may reduce the amount of food and drink they purchase into the home if they buy more outside the home.

Data presented is based on total volumes purchased for the population, and therefore as the population has increased over time (around 2% since 2010) a concomitant rise in purchase is expected. Although data expressed per capita can help account for a rise in population, the data is not weighted according to sex and age and may therefore contain biases.

Data on sugars relates to *total* sugars and not *free* sugars, which are the basis of current dietary recommendations. Obtaining data on free sugars would require conversion of total sugar data on nutrition labels. However, for many discretionary product categories it can be assumed that the majority (if not all) of the sugar contained within them is free.

This analysis is based on 73 food and drink categories which collectively represent the total take home food and drink basket. These categories are pragmatically broad, for example to allow for sufficient sample sizes, therefore the detail of specific brands and products within each category is unknown from this data.

Additionally, throughout this report healthier categories have been compared with less healthy categories however these are only a selection of healthier and less healthy categories of interest to FSS and therefore comparison with other categories may alter the results.

Data on promotions relates only to *price* promotions, and does not include data on other forms of promotion such as product placement or advertising. Additionally, we are not able to infer from the data whether changes in purchase on promotion would result in any changes in calorie purchase.



15. Conclusions

15.1. Purchase of calories and nutrients into the home

15.1.1. Trends in nutrient purchase

The data showed little change in purchase of calories (-2.1%), total fat (-1.2%), saturated fat (+3.1%) or total sugar (-0.9%) since 2010. Daily per capita data shows that for every person in Scotland, 2,101 calories, 116g of total sugar, 84g of total fat, 33g of saturated fat and 6g of salt are purchased into the home from retail stores. Given that retail purchase excludes food and drink purchased and consumed out of home (OOH), the true values for total purchase from fats and total sugar will be higher than this.

15.1.2. Sugar Purchase

Between 2010 and 2016 there was a continuous decrease in the purchase of regular soft drinks, alongside an increase in the purchase of diet soft drinks, which has led to an overall reduction in the purchase of sugar from soft drinks. This however, has not translated into a substantial reduction in total sugar purchase overall (just 0.9% since 2010). There was little indication of reductions in sugar for most other discretionary categories, in fact there were some increases, which have offset the sugar reduction in soft drinks. For example, since 2012 there has been an increase in the sugar purchased from confectionery, breakfast spreads, ice-cream, edible ices and dairy desserts equating to around 3,838 tonnes of sugar, which cancels out (and exceeds) the reduction in sugar purchased from regular soft drinks (- 3,253 tonnes).

15.1.3. Purchase of discretionary foods

The top 20 foods and drinks contributing to purchase of calories, fats, total sugar and sodium in 2016 were similar to those in 2010. This includes discretionary foods such as confectionery, cakes, biscuits, pastries, crisps and savoury snacks and sugary drinks together with puddings, desserts, ice-cream, edible ices and frozen dairy desserts, which contributed around a quarter to purchase of calories and total fat in 2016, 28% to purchase of saturated fat, 37% to purchase of total sugar, and around 11% to purchase of sodium in Scotland. These purchase data on are in line with existing data on dietary intakes²³ which shows that discretionary foods contribute around 20% to calorie and fat intake and 58% to free sugar intake.²⁴

15.1.4. Purchase patterns by area of deprivation (SIMD)

In 2015, levels of overweight and obesity were associated with deprivation in both children and adults in Scotland.²⁵ The data in this report shows that households in the 20% most deprived areas (SIMD 1) tended to purchase a greater proportion of their calories from confectionery, biscuits and sugary drinks compared with the least deprived (SIMD 5), and a smaller proportion from plain starchy carbohydrates, fruit and vegetables. Overall the data on dietary purchase, including by deprivation, is in line with existing data on dietary intakes in Scotland.²⁶

²³ Food Standards Scotland. Contribution of foods to intakes of energy and selected nutrients using food purchase data in Scotland 2013-2015 (in preparation for publication)

²⁴ As described in section 16, the purchase data presented within this report relates to total sugars whereas data presented on intakes relates to free sugars.

²⁵ The Scottish Health Survey, 2016: <http://www.gov.scot/Publications/2017/10/2970>

²⁶ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland, 2001 – 2014 (2016): <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>



15.2. Price promotions

15.2.1. Trends in price promotions over time

The level of overall price promotions in 2016 was 36% of calories, which is a decrease from 39% in 2014 and 2015. The results for 2014 and 2015 in this report are slightly different to those previously published, because the current report presents data for individual calendar years (Jan – Jan) whereas the previous report, which showed a level of 40%, combined data for 2014/15 (Sept – Sept).

Since 2010, the overall balance of different types of price promotions has changed. Y for £X and multi-buys have declined with multi-buys having almost entirely disappeared from the overall picture. Overall, TPRs have remained the most common form of price promotion, and have increased since 2010 from 21% of total calorie purchase to 26% of calorie purchase in 2016.

15.2.2. Price promotions by product type

As described in the previous report²⁷ it was evident that many of the less healthy categories were purchased more frequently on promotion compared to the healthier categories. Changes since 2010 were generally small, but for some discretionary categories such as puddings and desserts, biscuits and confectionery, purchase on promotion has increased. For example, purchase of confectionery on promotion increased from 44% in 2010 to 48% in 2016.

15.2.3. Price promotions by retailer

Data available for publication on volume purchase were used as the standardised method to compare differences between retailers. Results standardised by calories are generally similar to those standardised by volume.

The volume of food and drink purchased on price promotion within the top 5 retailers ranged from 36% to 45%, compared to the average for total food and drink purchase. The discounters showed lower purchase on price promotion (11%).

The majority of purchase on price promotion within the top 5 retailers and discounters was through a TPR. However, whilst Morrisons, The Co-operative, Tesco and Asda showed some level of total volume purchase through Y for £X and Multi-buy deals, these types of promotions were very low within Sainsbury's and were non-existent within the discounters.

Purchase on price promotion across most retailers was generally skewed towards less healthy options (with the exception of soft drinks where the balance tended to be in favour of the diet drinks). The exception was the discounters where purchase on price promotion was similar between the healthier and less healthy categories or in some cases was higher for the healthier categories (e.g. water, fruit and vegetables).

The level of purchase on promotion within individual categories varied considerably by retailer. For example, purchase of confectionery on price promotion ranges from over 70% within 3 of the top retailers to only 10% within the discounters. The average purchase on price promotion for confectionery for the top 5 retailers (i.e. excluding the discounters) presented within this report was 68%.

²⁷ Food Standards Scotland. Monitoring foods and drinks purchased into the home in Scotland (2016): <http://www.foodstandards.gov.scot/publications-and-research/monitoring-foods-and-drinks-purchased-into-the-home-in-scotland>



15.2.4. The value of promotions to consumers

A previous analysis published in 2015 by Public Health England estimated that the 'giveaway' cost (i.e. the saving) from price promotions was around £634 per year for the average household in GB.²⁸ This means that if consumers purchased exactly the same products without any promotions, they would need to spend an additional £634 per year.

The current analysis took a different perspective and considered the average cost (spend per kg) of products with and without a promotion, for total food and drink and within individual food and drink categories. These analyses found that, overall food and drink purchased on promotion was more expensive than food and drink purchased without a promotion. This was also the case for some individual food categories, such as edible ices and dairy desserts, ice-cream, oil rich fish, water and fruit where on average it was more costly for consumers to purchase products within these categories on promotion. However, there was no consistent pattern between the healthier and less healthy categories considered.

Therefore while consumers may save money on an individual item products purchased on price promotion are not always the 'best deal' and products included in a price promotion are not necessarily the cheapest. This may be explained, for example, by the mix of products which are promoted and a difference in the promotion of branded and unbranded products.

The report did not consider the effect of trading down to cheaper alternatives on nutritional composition.

15.2.5. Price promotion by area of deprivation (SIMD) and household income

How much consumers spend on promotion is particularly important when considering low income households where food is the largest item of household expenditure after housing, fuel and power costs²⁹ and promotions might be considered as a way of reducing spend on food and drink.

While this report showed little difference in the purchase of calories on price promotion by deprivation, analysis by income does suggest that those with the lowest incomes spend a lower proportion of their food and drink budget on promotion, compared to those in the highest income groups (33% vs 39%).

Therefore, the results do not suggest that those on lower incomes would be disproportionately affected by any reduction in promotions than those with higher incomes. This is further supported by the analysis that suggests the price of food and drink purchased off promotion is lower than those purchased on promotion.

²⁸ Public Health England. Sugar reduction. The evidence for action. Annex 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar (2015): <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>

²⁹ Department for Environment, Food and Rural Affairs. Family food survey (2015), 2017: <https://www.gov.uk/government/statistics/family-food-2015>



15.3. Overall conclusion

This report complements and adds to the evidence base which supports action to limit the availability, advertising and promotion of high fat/salt/sugar products as recommended by FSS.³⁰

The reduction in the purchase of sugar from soft drinks is welcome, however there has been little change in total purchase of calories and nutrients overall and increases in sugar from other food categories which now need to be addressed. Discretionary foods continue to contribute considerably to total purchase of calories, fats and sugars, and there has been little change since 2010.

Despite promotions overall having declined recently, the data presented showed that, in 2016, over a third of the retail food and drink purchased in Scotland was on price promotion, with the majority via temporary price reductions. Price promotions are designed to increase the amounts purchased, and this report provides evidence that purchase on promotion is currently skewed towards less healthy products, highlighting the need for change.

³⁰ Food Standards Scotland. Proposals for setting the direction for the Scottish diet, one year on (2017): http://www.foodstandards.gov.scot/downloads/Board_meeting_-_2017_March_08_-_Diet_and_Nutrition_one_year_on_0.pdf



16. Annex 1: All 73 categories of food and drink which make up the total take home purchase in Scotland

Category
1. Total Food & Drinks
2. Total Food and Milk
3. Total Alcohol
4. Total Bread & Morning Goods (Ambient)
5. Total Bread (Ambient)
6. Plain Bread (Ambient)
7. Morning Goods (Ambient)
8. Higher Sugar/Fat Morning Goods (Ambient)
9. Other Morning Goods (Ambient)
10. Total Biscuits
11. Total Cakes & Pastries (Ambient)
12. Higher Fat Cakes & Pastries (Ambient)
13. Sweet Pastries and Sweet Pies
14. Cakes
15. Savoury Pies and Pasties
16. Ice-Cream
17. Edible Ices/Frozen Dairy Desserts excl. Ice-Cream
18. Crisps and savoury snacks
19. Total Breakfast Cereals (incl. Rolled Oats and Oatmeal)
20. Breakfast Cereals that meet criteria (<5g sugar and <0.68g salt)
21. Frozen Processed Potatoes (incl. Chips)
22. Plain Starchy Carbohydrates (excl. Potatoes, Sweet Potatoes and Bread)
23. Total Ambient Confectionery
24. Chocolate Confectionery
25. Chocolate Block
26. Egg/Novelty/Seasonal Chocolate
27. Total Soft Drinks (Ambient & Chilled) (excl. Flav. Milk)
28. Total Soft Drinks (Ambient & Chilled) (incl. Flav. Milk)
29. Total Soft Drinks (Ambient) (incl. Flav. Milk)
30. Diet Soft Drinks (Ambient & Chilled) (based on 'healthy' attribute)
31. Regular Soft Drinks (Ambient & Chilled) (based on 'healthy' attribute)
32. Diet Soft Drinks (Ambient) (based on 'healthy' attribute)
33. Regular Soft Drinks (Ambient) (based on 'healthy' attribute)
34. Squash



Category
35. Total carbonates
36. Diet carbonates (based on 'healthy' attribute)
37. Regular carbonates
38. Water (Still, Carbonated & Flavoured; excl. Soda)
39. Pure Fruit Juice
40. Total Dairy Products
41. Total Milk
42. Whole Milk
43. Semi-Skimmed Milk
44. Reduced Fat Milk (Skimmed & 1%)
45. Total Cheese
46. Total Cheddar Cheese
47. Total Yoghurt
48. Yogurt that meets criteria ($\leq 3\text{g}$ fat and $\leq 10\text{g}$ sugar)
49. Total Cream
50. Yellow Fats
51. Total Fish
52. Plain Oil Rich Fish
53. Plain White Fish
54. Total Fruit
55. Plain Fruit
56. Fresh Fruit & Vegetables
57. Total Vegetables & Salad Leaves
58. Plain Vegetables
59. Canned Beans in Sauce
60. Total Plain & Sweet Potatoes
61. Total Red Meat & Products
62. Total Sausages
63. Total Poultry & Products
64. Plain Chicken & Turkey
65. Ready Meals
66. Pizza
67. Savoury Home Cooking (excl. Salt)
68. Total Pickle, Table Sauce & Condiment
69. Table Salt
70. Sweet Home Cooking (excl. Sugar)
71. Table Sugar
72. Breakfast Spreads
73. Total Puddings & Desserts



17. Annex 2: Food and drink categories included in top 20 contributors to purchase of energy, fats and sugars: Kantar Worldpanel definitions³¹

Category	Kantar Worldpanel Definition
Dairy Products	Includes milk, yoghurt, cheese, fresh cream, butter, spreads, lard, dripping, excludes eggs
Yellow Fats	Includes butter, spreads, lard and dripping
Total Milk	All milk including buttermilk and soya milk
Total Cream	All fresh, flavoured and synthetic cream
Total Cheese	All hard and soft cheese including continental and specialty cheeses
Ice-Cream	Ice-cream, including filled cones cups and tubs
Edible Ices and Frozen Dairy Desserts	Includes ice lollies, choc ices, frozen yoghurts, mousse and sorbets, excluding ice-cream
Total Yoghurt	All yoghurt including low fat, plain and flavoured
Frozen Processed Potatoes	All frozen potato products including chips
Total Plain and Sweet Potatoes	All fresh and canned plain and sweet potatoes
Plain Starchy Carbohydrates	Includes plain fresh and dry pasta, rice, noodles and cous cous excluding potatoes, sweet potatoes and bread
Total Bread and Morning Goods	All bread and rolls including pre-packed, part-baked and freshly baked, plain and fruit scones, crumpets, pikelets, English muffins, scotch pancakes, bagels, croissants, brioche, waffles etc
Crisps and savoury snacks	Includes crisps, popcorn, savoury snacks and nuts
Savoury pies and pasties	All fresh and canned pies, pasties, and sausage rolls
Total Biscuits	All sweet and savoury biscuits

³¹ All other definitions of food/drink categories available from FSS on request.

Category	Kantar Worldpanel Definition
Savoury home cooking	Includes ambient cooking sauces, cooking oils, flour, herbs, spices, meat extract, packet stuffing, suet, savoury mixes and vinegar, excludes salt
Total Pickle, Table Sauces and Condiments	All ambient table sauces including salad cream, horseradish sauce, hollandaise sauce, tomato ketchup, mustard, dips, pickles, chutney, relishes
Total Red Meat and Products	All fresh, canned, frozen, processed red meat or red meat products including burgers, grills, bacon and offal
Total Poultry and Products	All fresh, chilled, frozen, raw and cooked poultry or poultry products
Total Sausages	All chilled and frozen sausages including sausage meat and products and continental sausages
Ready Meals	Chilled, frozen and canned ready meals including English, Italian, Indian and Chinese etc
Total Vegetables and Salad Leaves	All fresh, chilled, pre-prepared, frozen and canned vegetables including canned beans and herbs but excluding potatoes and sweet potatoes
Fresh Fruit and Vegetables	Fresh and chilled fruit, vegetables and herbs, excludes frozen fruit and vegetables
Total Fruit	All fresh, chilled, frozen and tinned fruit
Total Puddings and Desserts	Ambient, chilled, canned, powdered and frozen desserts including jellies, sponge puddings, rice pudding, custard, mousses and cheesecakes
Total Cakes and Pastries	All ambient, chilled and frozen cakes and pastries including pies, flans and tarts All higher fat and/or sugar morning goods including tea cakes, croissants, scones, iced buns, waffles and other morning pastries
Total Ambient Confectionery	All ambient sugar and chocolate confectionery and chewing gum
Sweet Home Cooking	Includes long life desserts, syrup and treacle, table and quick set jellies , baking fruit, snacking fruits and nuts, evaporated and condensed milk, non-dairy cream
Breakfast Spreads	Includes jam, marmalade, peanut butter, lemon curd and honey
Table Sugar	All white and brown granulated, caster, icing and cubed sugar
Total Alcohol	All alcoholic drinks, including wine, spirits, beer and cider
Pure Fruit Juice	All ambient or chilled pure fruit juice
Regular Soft Drinks	All ambient and chilled soft drinks with added sugar, including squash, fruit juice and all carbonated drinks Excludes all still, carbonated and flavoured waters (excluding soda)

18. Annex 3: Top 20 food and drink categories contributing to purchase of total calories, total fat, saturated fat, total sugars and sodium in Scotland

Table 1:

Top 20 food and drink categories contributing to total take home purchase of calories in Scotland (2010 versus. 2016)

Category	% of total calorie purchase - 2010	% of total calorie purchase - 2016
Total Bread & Morning Goods (Ambient)	11.2%	11.1%
Total Biscuits	6.3%	6.6%
Total Milk	5.6%	5.8%
Total Red Meat & Products	5.6%	5.6%
Total Confectionery (Ambient)	4.8%	5.3%
Yellow Fats	5.4%	5.1%
Savoury Home Cooking (excl. Salt)	4.7%	4.4%
Total Alcohol	4.2%	4.3%
Crisps and savoury snacks	3.4%	3.7%
Total Breakfast Cereals (incl. Rolled Oats and Oatmeal)	3.7%	3.6%
Total Fruit	3.1%	3.5%
Total Cheese	3.0%	3.0%
Total Cakes & Pastries (Ambient)	4.9%	4.1%
Total Poultry & Products	2.3%	2.6%
Total Vegetables & Salad Leaves	1.8%	2.3%
Total Plain & Sweet Potatoes	2.6%	2.3%
Table Sugar	2.5%	2.2%

Category	% of total calorie purchase - 2010	% of total calorie purchase - 2016
Ready Meals	2.1%	2.0%
Plain Starchy Carbohydrates (excl. Potatoes, Sweet Potatoes and Bread)	2.1%	1.8%
Regular Soft Drinks (Ambient & Chilled)	2.8%	2.3%

KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g. This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries. The top 20 contributors provide 81% of total take home calorie purchase in Scotland.

Table 2:

Top 20 food and drink categories contributing to total take home purchase of total fats in Scotland (2010 versus. 2016)

Category	% of total fat purchase - 2010	% of total fat purchase - 2016
Yellow Fats	15.1%	14.0%
Total Red Meat & Products	9.2%	8.7%
Savoury Home Cooking (excl. Salt)	8.9%	7.9%
Total Biscuits	6.7%	6.9%
Total Cheese	6.0%	6.1%
Total Milk	5.7%	5.7%
Total Confectionery (Ambient)	4.8%	5.4%
Crisps and savoury snacks	5.1%	5.3%
Total Bread & Morning Goods (Ambient)	4.1%	4.4%
Total Cakes & Pastries (Ambient)	4.6%	3.9%
Total Poultry & Products	2.6%	2.7%
Savoury Pies and Pasties	2.8%	2.2%
Ready Meals	2.2%	2.2%
Total Pickle, Table Sauce & Condiment	1.7%	2.1%
Total Cream	1.5%	1.8%
Total Vegetables & Salad Leaves	1.0%	1.5%
Frozen Processed Potatoes (incl. Chips)	1.6%	1.4%
Total Puddings & Desserts	1.2%	1.3%
Total Breakfast Cereals (incl. Rolled Oats and Oatmeal)	1.1%	1.2%
Ice Cream	1.2%	1.2%

KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g. This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries. The top 20 contributors provide 86% of total take home total fat purchase in Scotland.

Table 3:

Top 20 food and drink categories contributing to total take home purchase of saturated fats in Scotland (2010 versus. 2016)

Category	% of saturated fat purchase - 2010	% of saturated fat purchase - 2016
Yellow Fats	14.8%	14.7%
Total Cheese	10.1%	9.9%
Total Milk	8.4%	8.9%
Total Red Meat & Products	9.7%	8.9%
Total Biscuits	8.6%	8.7%
Total Confectionery (Ambient)	7.1%	8.0%
Total Cakes & Pastries (Ambient)	4.9%	4.0%
Total Bread & Morning Goods (Ambient)	3.2%	3.3%
Total Cream	2.6%	3.1%
Savoury Home Cooking (excl. Salt)	3.3%	3.0%
Savoury Pies and Pasties	3.2%	2.5%
Ready Meals	2.3%	2.1%
Ice Cream	1.3%	2.1%
Total Puddings & Desserts	1.9%	2.0%
Total Poultry & Products	1.8%	1.8%
Crisps and savoury snacks	1.9%	1.6%
Edible Ices/Frozen Dairy Desserts excl. Ice Cream	1.1%	1.5%
Total Yoghurt	1.2%	1.5%
Pizza	1.1%	1.2%
Sweet Home Cooking (excl. Sugar)	1.4%	1.1%

KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g. This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries. The top 20 contributors provide 90% of total take home saturated fat purchase in Scotland.

Table 4:

Top 20 food and drink categories contributing to total take home purchase of total sugar in Scotland (2010 versus. 2016)

Category	% of total sugar purchase - 2010	% of total sugar purchase - 2016
Total Fruit	12.4%	13.3%
Total Confectionery (Ambient)	10.0%	11.8%
Table Sugar	11.4%	9.8%
Total Milk	9.4%	9.7%
Total Biscuits	6.6%	7.0%
Regular Soft Drinks (Ambient & Chilled)	11.3%	9.5%
Total Cakes & Pastries (Ambient)	6.2%	5.4%
Sweet Home Cooking (excl. Sugar)	5.0%	4.1%
Total Bread & Morning Goods (Ambient)	3.6%	3.5%
Total Vegetables & Salad Leaves	3.1%	3.5%
Total Breakfast Cereals (incl. Rolled Oats and Oatmeal)	3.5%	2.9%
Pure Fruit Juice	3.0%	2.6%
Breakfast Spreads	1.7%	2.6%
Total Yoghurt	2.4%	2.4%
Total Puddings & Desserts	2.1%	2.3%
Ice Cream	1.4%	1.9%
Total Alcohol	1.7%	1.6%
Total Pickle, Table Sauce & Condiment	1.5%	1.5%
Edible Ices/Frozen Dairy Desserts excl. Ice Cream	0.8%	1.1%
Savoury Home Cooking (excl. Salt)	1.1%	1.1%

KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g. This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries. The top 20 contributors provide 98% of total take home total sugar purchase in Scotland.

Table 5:

Top 20 food and drink categories contributing to total take home purchase of sodium in Scotland (2010 versus. 2016)

Category	% of sodium purchase - 2010	% of sodium purchase - 2016
Total Bread & Morning Goods (Ambient)	10.5%	12.6%
Total Red Meat & Products	9.0%	12.4%
Table Salt	19.2%	11.8%
Savoury Home Cooking (excl. Salt)	5.2%	7.2%
Total Cheese	2.8%	4.5%
Total Milk	3.2%	3.6%
Total Biscuits	2.4%	3.4%
Crisps and savoury snacks	2.5%	3.4%
Yellow Fats	2.7%	3.0%
Total Pickle, Table Sauce & Condiment	2.5%	3.0%
Ready Meals	2.2%	2.8%
Total Poultry & Products	1.6%	2.4%
Total Cakes & Pastries (Ambient)	2.1%	2.2%
Total Vegetables & Salad Leaves	0.8%	1.8%
Total Fish	1.4%	1.6%
Total Breakfast Cereals (incl. Rolled Oats and Oatmeal)	1.7%	1.5%
Savoury Pies and Pasties	1.4%	1.5%
Pizza	1.0%	1.5%
Frozen Processed Potatoes (incl. Chips)	0.8%	1.1%
Canned Beans in Sauce	0.9%	0.9%

KWP undertook a major review of the per servings markets, where nutrient data is collected per serving, not per 100g. This affected data prior to 2011 for cakes and pastries. For this reason, 2011 data has been compared with 2016 data within cakes and pastries. The top 20 contributors provide 82% of total take home sodium purchase in Scotland.

About Food Standards Scotland

Food Standards Scotland (FSS) is the public sector food body for Scotland. We are here to ensure that information and advice on food safety and standards, nutrition and labelling is independent, consistent, evidence-based and consumer-focused.

Our primary concern is consumer protection – making sure that food is safe to eat, ensuring consumers know what they are eating and improving nutrition. With that in mind, our vision is to deliver a food and drink environment in Scotland that benefits, protects and is trusted by consumers.

FSS was established by the Food (Scotland) Act 2015 as a non-ministerial office, part of the Scottish Administration, alongside, but separate from, the Scottish Government. We are mainly funded by government but we also charge fees to recover costs for regulatory functions.

See more at:

<http://www.foodstandards.gov.scot/about-us>

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