Background Paper to Supporting Healthy Choices

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Buidheann Inbhe-Bìdhe

The Scottish Government
Riaghaltas na h-Alba

Background Paper to Supporting Healthy Choices

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Contents

1. The Scottish Diet

1. THE SCOTTISH DIET

1.1 Background to approach taken in Supporting Healthy Choices

The majority of the adult population in Scotland is overweight (64.3%), with over a quarter classed as obese (27.1%) in 2012[1]. Individuals of a normal weight are now in the minority. The 2012 Scottish Health Survey data suggests that the prevalence of overweight and obesity in adults increased significantly between 1995 and 2012 but has remained fairly stable since 2008. In children, the proportion at risk of overweight including obese has increased from 29.1% in 1998 to 32.8% in 2008 but since then has fluctuated with no clear pattern (30.6% in 2012).

Overweight and obesity are a result of a positive energy balance, which is caused in part by an over consumption of calories. Obesity is linked to diseases such as type 2 diabetes mellitus, heart disease, stroke and high blood pressure. For example, around 80% of people with diabetes are overweight or obese[2]. Excess total fat and sugars can increase calorie intake and in turn contribute to overweight and obesity. In recognition of this, a population level Scottish Dietary Goal has been set to reduce calorie intake by 120kcal/person/day.

Among OECD countries, Scotland has some of the highest levels of obesity prevalence for men and women. Obesity comes at a cost to society: direct costs to the UK NHS have been estimated at over £5.1 billion per year[3]. In 2007-8 the total cost to society (including direct and indirect costs) of obesity in Scotland was estimated to be in excess of £457 million and the predicted costs to Scotland by 2030 are in the region of £0.9 to 3 billion per year[4].

Specific dietary components are also associated with an increased risk of diet related diseases. Consumption of diets high in saturated fats can increase blood cholesterol levels and result in an increased risk of coronary heart disease (CHD).[5,6] In contrast, unsaturated fats can help to lower blood cholesterol and provide essential fatty acids which in turn can be protective against CHD. Diets high in sugars are linked with increased risk of dental caries[7]. High salt intake increases the risk of high blood pressure which can lead to increased risk of heart attack or stroke. Even a modest reduction in population intakes of saturated fat and/or salt has the potential to reduce the burden of diet related disease on society[6,8]. Diets in Scotland contain too much fat, salt and sugar[9] and therefore these nutrients can be considered to be of public health concern.

The Scottish Dietary Goals[10] comprise a number of evidence based food and nutrient goals that indicate, in dietary terms, the direction of travel required to improve the Scottish diet. The Food Standards Agency in Scotland (FSA Scotland) have a surveillance programme in place to monitor the diet of the Scottish population, and progress towards the goals. See Appendix 1 for a summary of the goals and the evidence supporting them.

Health inequalities exist in terms of dietary intake, prevalence of obesity and diet related disease. Those living in more deprived areas tend to have the poorest diets, and women from the most deprived areas are at greatest risk of developing obesity[11]. Disparities are apparent in childhood; the 2010 survey of children living in Scotland[12] found that the prevalence of overweight (including obesity) increased as the level of deprivation increased.

1.2 FSA in Scotland dietary surveillance programme

The FSA Scotland dietary surveillance programme primarily monitors population dietary intakes using secondary analysis of the Living Costs and Food survey (LCF)[9] with additional de novo surveys of children's intakes[12,13] and surveys of population salt intakes[14,15]. To monitor food intake using the LCF survey we have established a robust secondary analysis methodology[9] in which sets of conversion factors are applied to convert raw food to cooked weight and to account for the proportion of waste. Nutrient intakes for foods consumed across the whole day are then calculated per person. Results for three years data combined can be used for analysis by the Scottish Index of Multiple Deprivation (SIMD).

More recently the FSA Scotland dietary surveillance programme has expanded to track **retail** food and drink **purchase** in Scotland both into the home[16] and out of the home[17] using market research data from Kantar Worldpanel (KWP)[a] and NPD Group[b] respectively.

KWP data provides the volume purchased for all food and drink categories in Scotland and the associated nutritional composition of each category based on food label data. Information on the proportion sold on promotion[c] is also provided. This allows assessment of changes over time in the purchase volume and nutritional composition of individual food and drink categories including those on promotion, and assessment of the total retail purchase of calories, fats, sugar and salt into the home in Scotland. Data from KWP has also been used to monitor progress on salt reduction of manufactured products in Scotland[18].

The out of home landscape has been described using data provided by NPD Group. This data provides information on the frequency and types of foods and drinks consumed out of home in Scotland, including by different age groups. However, only limited information on the nutrient composition of foods and drinks purchased out of home is available.

[a] **http://www.kantarworldpanel.com/en**

[b] **https://www.npdgroup.co.uk/wps/portal/npd/uk/home/**

[c] The promotional detail provided includes the total sold on promotion, split into multi-buys, Y for X, Temporary price reductions, and other promotion (e.g. meal deal, on pack, extra free etc.) and no promotion

1.3 Evidence on dietary intake in Scotland

Based on evidence from the LCF there have been only very modest improvements in dietary intakes since 1996 and persistent inequalities in dietary intakes remain[9]. Table 1 shows that little or no progress, at population level, has been made towards any of the goals between 2001 and 2011. There has been no increase in household consumption of fruit and vegetables and oil rich fish and only a very small reduction in saturated fats and non-milk extrinsic sugars[d] (NMES) intakes, which are still too high. This lack of progress towards the goals is supported by surveys of children's diets[12,13] which mirror the household surveys and have shown that intakes of fruit and vegetables and oily fish remain too low, whereas intakes of added sugars and saturated fats are too high.

Two urinary salt surveys carried out Scotland in 2006[14] and 2009[15] did not show a statistically significant reduction in population salt intake; the last reported average salt intake of 8.8g/day in 2009 was well above the Scottish Dietary Goal (of ≤6g/day). To drive further reductions of salt in food products, a new set of salt targets for 76 categories have been set for achievement by 2017[19].

The data also show differences in dietary intake with deprivation, those living in more deprived areas tend to have poorer diets. Deprived households have the lowest intakes of fruit and vegetables, oily fish and dietary fibre and highest intakes of added sugars (Table 1). This trend is also observed in the children's surveys where children living in the most deprived areas of Scotland have the highest intakes of added sugars and lower intakes of fruit and vegetables, oily fish and dietary fibre[12,13]. In addition, those in the more deprived areas tend to have more energy (calorie) dense diets[20] (see Table 1). Addressing these inequalities in diet is a priority for the Scottish Government.

[d] NMES are sugars that are not located within the cellular structure of a food (excluding milk sugars). They include fruit juices, honey, sucrose, fructose, recipe sugars, table sugars and 50% of sugars in canned, stewed, dried or preserved fruits

Table 1: Progress towards the Scottish Dietary Goals (data from LCF and 24 hour urinary surveys*)

Nutrient/Food	Scottish Dietary Goal	Change in household intake from 2001 to 2011 LCF	Progress made?	Highest consumption by deprivation
Energy (calorie) density	Decrease to 125 kcal/100g	Increase from 171 to 175 kcal/100g	No	Most deprived
Fruit and vegetables	More than 400g/day	Remains around 250g (3.1 portions)	No	Least deprived
Oil rich fish	140g/week	Remains around 30g	No	Least deprived
Dietary fibre	18g/day	Remains around 12g	No	Least deprived
Fat	≤35% food energy	Remains around 39%	No	No difference
Saturated fats	≤11% of food energy	Small reduction of 15.5% to 15.0%	Slow	Least deprived
Non-Milk Extrinsic Sugars (NMES)	<11% of food energy	Reduction from 15.5% to 14%	Slow	Most deprived
Salt* (g)	≤6g/day	9.0g in 2006 and 8.8g in 2009*	No	Unknown

1.4 Evidence from market research data on food and drink purchase into the home

Household purchase data from KWP[16] from 2010 to 2013 support the findings above from the LCF; fruit and vegetable purchases have not increased since 2010 with lower levels of purchase in deprived households. Data from KWP also confirm little change since 2010 in total fat, saturated fats, and total sugars purchased into the home and suggest a trend of increasing calorie purchase over the longer term (see Table 2).

Table 2: KWP data on total take home purchases of energy, sugar and fats in Scotland (2010-13)

	2010	2011	2012	2013
Energy (kcal)	4,035,388,000,817	4,080,270,241,933	4,142,827,675,905	4,149,319,507,782
Sugar (kg)	220,311,731	227,553,307	228,930,744	229,729,122
Fat (kg)	161,434,107	162,229,691	163,823,017	164,848,797
Sat Fat (kg)	60,497,451	61,988,734	62,677,945	63,727,459

Progress on salt reduction in foods was monitored in Scotland in 2012 using KWP data. Data were derived by combining food purchase data with salt labelling data. This confirmed that the same food categories were contributing the most salt in Scotland as the rest of GB and that there was considerable scope for further salt reductions[18].

1.5 Evidence on the out of home landscape

Eating out of home makes up an important part of our diet. Evidence from the LCF in Scotland indicates that eating out accounts for around 12% of total energy intake[9]. Recent analysis by FSA Scotland found that food eaten out of home in Scotland had a mean energy (calorie) density which was 30% higher than food eaten at home[20]. The World Cancer Research Fund (WCRF) reported that eating calorie dense foods is likely to result in the consumption of excess energy and hence the promotion of weight gain and obesity[21].

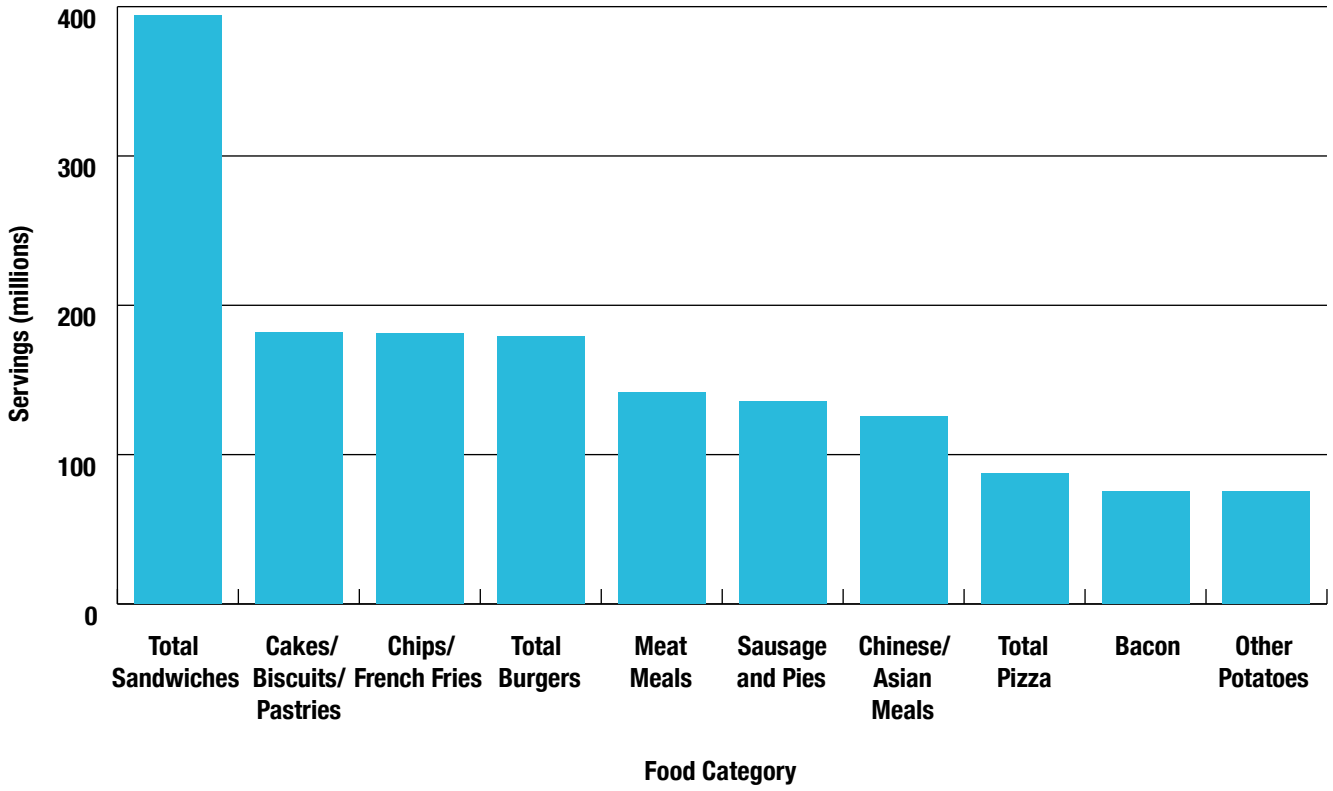
The market for out of home food and beverage purchase is very diverse ranging from formal restaurant dining to eating on the go, and includes quick service restaurants[e] (QSR), workplace canteens, pub chains, coffee shops, vending machines, supermarkets, corner shops etc.

Data provided to FSA Scotland by NPD Group from 2011-12 suggests there were nearly 1 billion (950 million) out of home visits in Scotland in 2012 and an annual purchase of over 2 billion servings of foods and drinks[17].

Whilst there is no nutrient data from NPD, the food and drinks most commonly purchased out of home in Scotland are presented in Figures 1 and 2. The data show that many of the foods and drinks that consumers purchase when eating out are likely to be high in calories, fats and sugar. QSR was the major source of many of these foods and drinks.

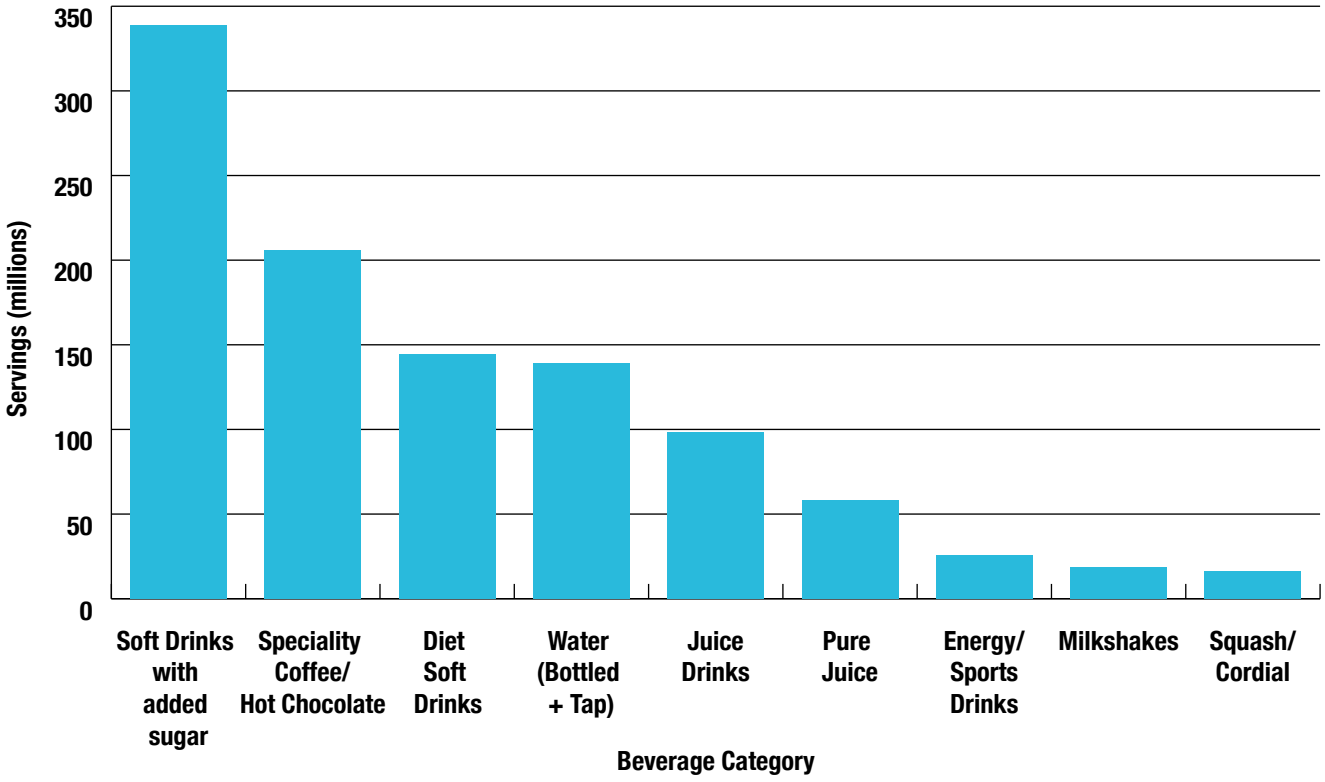
[e] Defined (by NPD) as restaurants that usually do not have table service and typically include fast food restaurants like McDonalds, sandwich shops, coffee shops and pizza/Chinese/Indian takeaways

Figure 1: Top 10 categories[f] (defined by NPD) of foods purchased out of the home in Scotland in 2012



f Total sandwiches include all types (wraps, rolls, baguettes etc.); total burgers category includes all types (cheeseburgers etc.); sausages and pies is a combined category which includes pasties and sausage rolls

Figure 2: Top nine categories[g] (defined by NPD) of beverages purchased out of the home in Scotland in 2012



1.6 Evidence on promotions

Promotions include a range of activities designed to provide added value and/or incentives to the consumer with the aim of stimulating sales. Retail data on foods purchased into the home from KWP suggest that despite a slight decrease in promotions in 2013, nearly 38% of all calories and 41% of calories from total fat and saturated fats were purchased on promotion. More than 50% of savoury snacks, regular soft drinks and confectionery were purchased on promotion in 2013 (Figure 3), compared to healthier alternatives such as fruit and vegetables and plain starchy carbohydrates where less than 30% were purchased on promotion.

There are also differences in purchase of food and drinks on promotion by SIMD; a higher proportion of food and drink is purchased on promotion by the most affluent households in Scotland as shown in Figure 4.

g For the purposes of this figure some of the soft drink categories have been combined

Figure 3: Proportion of retail purchases (volume sold) on promotion in 2013 in Scotland

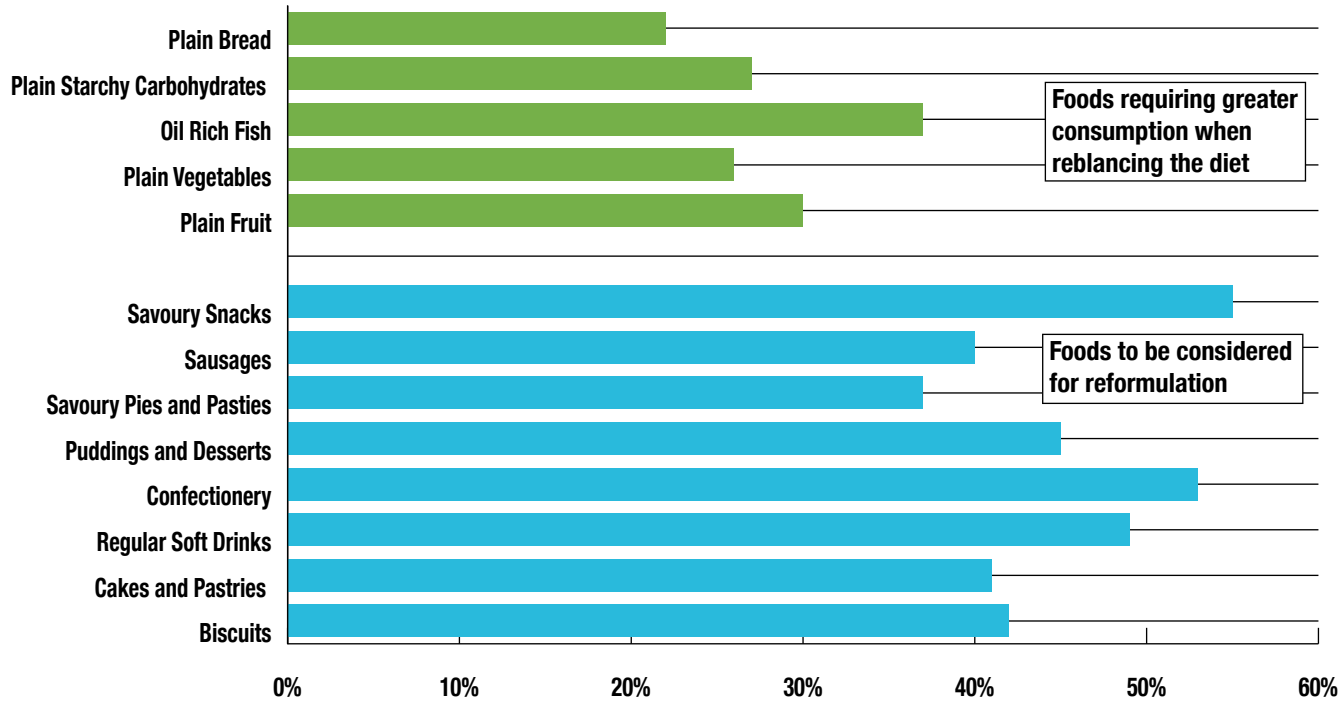
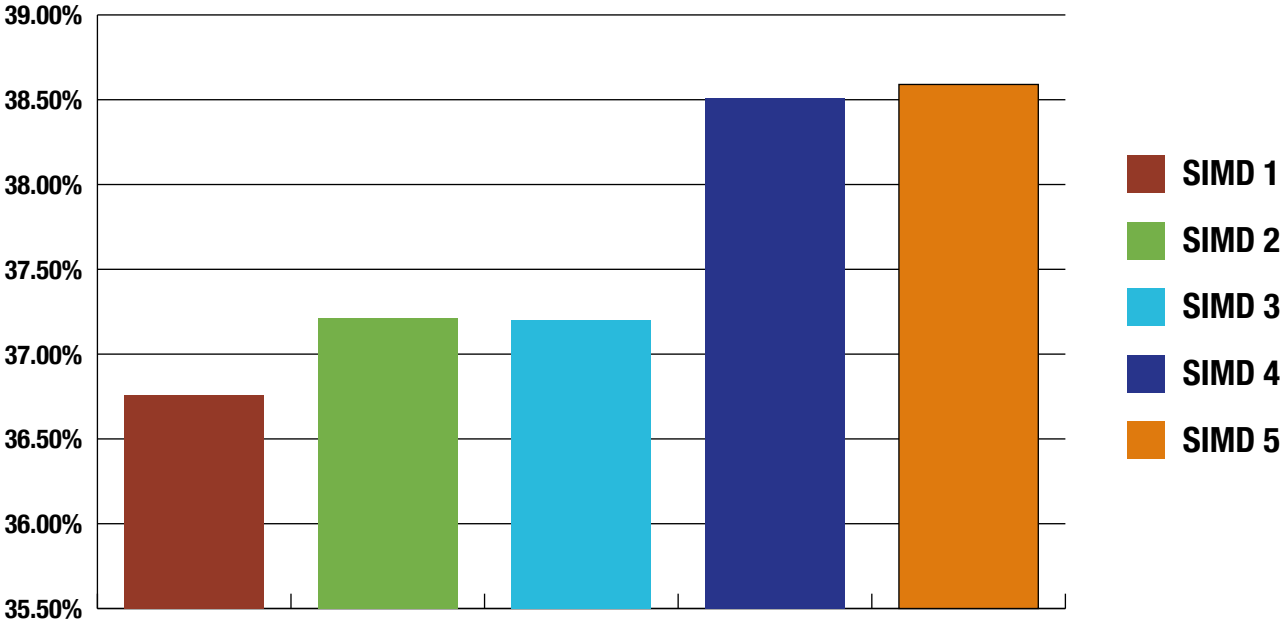
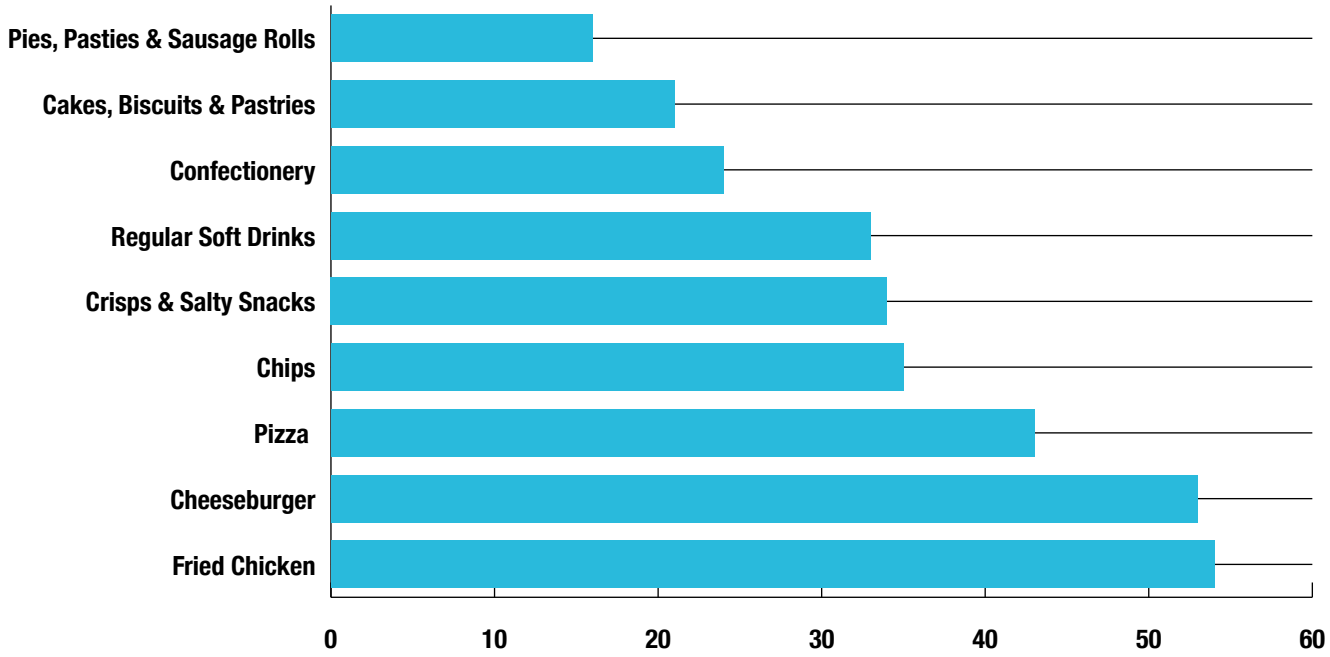


Figure 4: Percentage of calories purchased into the home on promotion by SIMD (SIMD 1 least affluent) in Scotland – Data from KWP



Promotions are also steadily increasing in the out of home market; in Scotland since 2010 a quarter of all eating out visits involved a promotion. The food categories that were most likely to be on promotion in 2011-12 are shown in Figure 5.

Figure 5: Proportion of volumes sold on promotion 2011-12 out of home



1.7 Summary of evidence

In summary, levels of overweight, obesity and diet related diseases remain of public health concern in Scotland. The Scottish diet, over many years, has failed to achieve dietary recommendations for health as set out in the Scottish Dietary Goals. Evidence also shows that the most deprived are disproportionately affected. Total fat, saturated fat, sugars and salt are consistently found to be consumed in excess by the Scottish population. Foods and drinks, high in these nutrients of concern, are commonly promoted both in retail and in out of home settings. It is therefore important that the main food sources of these nutrients are identified and work is undertaken to reformulate these to remove excess fats, sugars and salt (see Section 2). Shifting the balance to reduce calories and the excess consumption of these nutrients is essential if we are to progress towards achieving our dietary goals and so improve health in Scotland.

2. Reformulation

2. REFORMULATION

2.1 Introduction

The key focus for reformulation is to reduce calories, achieved by reductions in fats (including saturated fats) and added sugars as reductions in these nutrients can help to reduce the calorie content of foods.

In tandem with calorie reduction, salt reduction is an important public health goal, essential for the reduction of high blood pressure and lowering the risk of cardiovascular disease. Around 75% of salt consumed comes from processed foods[22]. Therefore salt targets, encompassing 76 categories of manufactured foods, have recently been revised and agreed across the four countries in the UK, set for achievement by 2017. Further reduction in the salt content of foods will require continued determined action by the whole food industry. All businesses are encouraged to meet the targets which will assist the population to move closer to our Scottish Dietary Goal of no more than 6g of salt a day.

The term **non-milk extrinsic sugar** (NMES) is used to report sugar intakes and in monitoring against the dietary goal. However, for the purposes of reformulation in this paper we use the term **added sugars** (see text boxes below). While fruits, vegetables and milk naturally contain sugars, these foods also convey considerable health benefits. Therefore use of additional fruits and vegetables, in particular, are welcomed as part of any reformulation.

Non-milk extrinsic sugars (NMES) are sugars that are external to the cell structure and *exclude* milk sugars; they include sucrose, fructose, honey, fruit juices and syrups (including high fructose corn syrup) that are added for sweetening purposes plus 50% of the sugars in canned, stewed, dried or preserved fruits.

For the purposes of **reformulation** we refer to **added sugars** which largely equate to **NMES**

Added sugars are defined as any mono- or disaccharide or any other food used for its sweetening properties. This would include, but is not exclusively limited to: sucrose, fructose, glucose, glucose syrups, fructose-glucose syrups, corn syrups, invert sugar, honey, maple syrup, malt extract, dextrose, fruit juices, deionised fruit juices, lactose, maltose, high maltose syrups, agave syrup, dextrin and maltodextrin. The sugars contained in dried fruit are assumed to be intrinsic and are not included as added sugars. The sugars in milk/milk powder are not included as added sugars

Fats, salt and sugars are prevalent in many manufactured products. In order to have the biggest impact on public health, priority should be given to reformulation of the **standard** or most commonly consumed products to contain less calories, fats, salt and/or sugars. This approach can have immediate benefits to the consumer without requiring any change in behaviour. The cumulative effect of reductions in a wide range of foods has the potential to have the greatest impact on dietary intakes. The term standard products refer to those in the mainstream and therefore does not include speciality, luxury or reduced fat/salt/sugar versions of existing products.

2.2 Foods and drinks which contribute to the nutrients of public health concern

Data from the Living Costs and Food Survey (LCF)[23] have informed the prioritisation of food categories for reformulation. The food and drink categories summarised in Table 3 contribute the most total fat, saturated fat and added sugars in the Scottish diet and offer the opportunity for reformulation to support achievement of the Scottish Dietary Goals. A full list of the main contributors to fats, sugar and energy from both LCF and KWP data are detailed in Appendix 2, Tables A-H.

Table 3: Foods and drinks contributing significant percentage contribution to fats and sugar (data from the Living Costs and Food Survey secondary analysis 2001-10)

Food category using LCF definition	% contribution to total fat	% contribution to saturated fats	% contribution to added sugars (NMES)
Total confectionery and sweet biscuits	10.3	14.0	23.2
Sugar containing soft drinks	n/a	n/a	25.2
Total processed red meat	12.2	12.0	n/a
Crisps and savoury snacks	4.7	4.1	n/a
Cakes, pastries and puddings	3.3	3.7	5.8
Total milk	6.5	10.4	n/a
Total cheese	5.1	8.2	n/a
Ice cream and dairy desserts	2.1	3.5	3.5
Yoghurt and fromage frais	n/a	n/a	2.1

The data presented in Table 3 are also in line with recent market research data for Scotland from Kantar Worldpanel (KWP) which suggest a similar pattern of contribution (see Appendix 2, Tables F, G & H). Furthermore, data from surveys of children's intakes indicate that sugar sweetened beverages, confectionery, cakes, biscuits and pastries, crisps and savoury snacks provide the greatest contributions to sugar and fats in their diets[12]; these data have also informed the prioritisation of food and drink categories for reformulation.

2.2.1 Total fat including saturated fats

Population intakes of total fat in Scotland are estimated to be around 39% food energy (FE) which is above recommended levels of less than 35% FE[9]. Similarly, intakes of saturated fats are too high at around 15% FE, which is above the Scottish Dietary Goal of less than 11% FE[9].

The biggest contributors to total fat and saturated fats in the diet include total processed red meat, confectionery and sweet biscuits, total milk, total cheese, ice cream and dairy desserts, cakes, pastries and puddings, crisps and savoury snacks. These findings are supported by market research purchase data from KWP which include red meat and products, biscuits, cakes, pastries and cheese as some of the major contributors (for full details see Appendix 2, Tables F & H).

2.2.2 Added sugars

Levels of added sugars are above the dietary goal for NMES of less than 11% food energy (FE) in both children (15.6% FE in 2010)[12] and in the overall population in Scotland (14% FE in 2011)[9]. The biggest contributor to added sugars in the Scottish diet is soft drinks. Other significant contributors to added sugars are confectionery and sweet biscuits, cakes, pastries and puddings, ice cream and dairy desserts and yoghurt and fromage frais. Data from KWP show that the top contributors to added sugars are similar and include confectionery and total biscuits, regular soft drinks, cakes and pastries (see Appendix 2, Table H).

2.2.3 Salt

The FSA Scotland commissioned analysis of Scottish data from Kantar Worldpanel in 2012, showed that the main contributors to salt were similar in Scotland and across GB[18]. The categories providing the most (around 20%) of the total salt purchased into the home, were bread and rolls (9.2%), bacon (4.3%), Italian and traditional ready meals (3.5%), cheddar and hard pressed cheese (2.5%) and fat spreads (2.3%). Other top 20 contributors to salt in Scotland included sausages, sweet and savoury biscuits, crisps and cakes (see Appendix 2, Figure A for the top 20 contributors).

2.3 Categories contributing most to the nutrients of public health concern

The food and drink categories detailed below have been highlighted for reformulation due to their significant contribution to fats and/or added sugars and may therefore be considered as having potential for overall calorie reductions. The basis for including each of the categories is discussed below.

a) Soft drinks with added sugars

Sugar containing soft drinks make the biggest contribution to added sugars in the population; they contribute to over a quarter of added sugars in the diet and also make a significant contribution to overall energy intakes[9]. Sugary soft drinks also provide the greatest contribution to added sugars in the diet of intake in children and young people[12,13]. Purchase data from KWP is in line with dietary intake data (see Appendix 2, Table H). Intakes of sugary drinks also vary by deprivation; those living in more deprived areas have the highest levels of consumption. This trend is consistent across the population, including children.

Soft drinks are also one of the most promoted food and drink categories; data from KWP data indicates that they have been increasingly promoted between 2011 and 2013. More than 50% of (sugar containing) soft drinks sold are on promotion. When eating out of the home, sugar containing soft drinks are the most popular category consumed by both adults and children.

b) Biscuits, confectionery, cakes, sweet pies and pastries

Data from the LCF survey show that total confectionery and sweet biscuits contribute significantly to all of the nutrients of public health concern.[23] When cakes, pastries and puddings are included, this combined category provides the biggest contribution to calories, fats and added sugars in the Scottish diet (see Table 2 and full details are available in Appendix 2, Tables A-H). Furthermore, biscuits, confectionery, cakes, sweet pies and pastries are among the most highly purchased categories when eating out of the home (see Figure 3).

A recent analysis of progress against the salt targets in Scotland[18] showed that biscuits and cakes were also significant contributors to salt intake, with sweet biscuits, savoury biscuits and cakes all in the top 20 of the food categories considered. Sweet biscuits alone were estimated to contribute around 2% of the salt purchased into the home from all the food categories analysed with a slightly higher contribution in Scotland compared to GB[18].

Intakes of confectionery are significantly greater in the more deprived areas and are also highly promoted; more than 50% of confectionery was purchased on promotion in 2013.

c) Processed meat (savoury pies, sausages and burgers)

The LCF survey shows the contribution that the total processed red meat[h] makes to nutrients in the diet. The processed meat category is within the top three largest contributors for calories, total fat and saturated fats[23]. Data from KWP indicate a similar contribution of processed meat products to fat and saturated fats. Sausages, savoury pies and pasties are also amongst the most promoted food categories.

Sausages and other meat products (e.g. bridies, Scotch pies, other meat pies and meat puddings) were also significant contributors to salt intake and in the top 20 salt providers of the food categories considered[18]. Sausages alone were estimated to contribute more than 2% of the salt from all the food categories analysed based on purchase into the home.

Those living in the more deprived areas consume more processed meat products and derive more of their calories and saturated fats from processed meat products[24]. Data from KWP support these findings with purchase of sausages and burgers being highest in the most deprived.

This is also a very popular category when eating out of the home. Burgers are the third fastest growing category in Scotland with pies and pastries, cheeseburgers and sausages also popular choices (in the top 25). The category is also widely promoted within the out of home setting; over half of all cheeseburgers eaten out are purchased on promotion.

d) Dairy (milk, cheese, yoghurt and fromage frais and ice cream)

Milk and dairy products, such as cheese and yoghurt, are good sources of protein and calcium and form an important part of a healthy balanced diet. Dairy products also contribute significantly to fat, saturated fats and sugar in the diet. Milk contributes significantly to both fat and saturated fats and consumption patterns vary with deprivation; whole milk is consumed most in the most deprived[9].

Cheese makes a large contribution to saturated and total fat. The cheddar and hard cheese category also provided the fourth largest contribution towards salt intakes in Scotland in 2012 which contributed around 2.5% to salt intake for foods purchased into the home[18].

[h] Category includes, sausages, meat pies, corned beef, burgers and pâté

Yoghurt and fromage frais make a more modest contribution to intakes of fat and saturated fats. This category does however make a greater contribution to added sugars, particularly in children. In the 2010 survey of children's intake, yoghurt and fromage frais were the fourth largest contributor to added sugars providing a contribution of around 7%. At a population level this category contributes 2.1% towards total added sugars.

The current legislative requirements regarding the composition of 'ice cream' (i.e. a minimum of 5% fat and 2.5% milk protein) and 'dairy ice cream' (i.e. a minimum of 5% fat exclusively from milk) will fall when most of the Food Labelling Regulations 1996 are revoked on 13 December 2014. However, there is an EU-wide ice cream industry code of practice which sets compositional standards for these products[25]. While the code continues the requirement for 'dairy ice cream' to contain a minimum of 5% fat (exclusively from dairy), it does not set a minimum fat content for 'ice cream'. This offers the opportunity to develop new products or reformulate existing ones to reduce fat levels below 5% and still use the term 'ice cream' in future. There is a large variation in fat content of the ice cream products that are currently on the market (between around 5-21%) and therefore many products still have scope to reduce the fat content. There is also the possibility of reducing added sugars in these products which would also contribute to a reduction in calories. In terms of purchases made when eating out of the home, ice cream remains the seventh most popular choice for children.

e) Savoury snacks

Crisps and savoury snacks contribute significantly to total fat and calorie intake (see Appendix 2, Tables 2 and 6). Savoury snacks are also one of the top contributors to salt intake, with a slightly higher contribution of salt from potato crisps in Scotland compared to GB[18].

Consumption of savoury snacks has been shown to increase with age in children and young people[12,13]. There is also an association with socio-economic group, with consumption of savoury snacks highest in the more deprived areas[12,13]. Similar trends are also found at a population level with savoury snacks providing a greater contribution to calories and saturated fats in the most deprived areas[9].

3. Summary and References

3. SUMMARY AND REFERENCES

3.1 Summary

This paper provides a summary of the evidence to support the approach taken within Supporting Healthy Choices. While we recognise the improvements that industry has made particularly in reformulation, there is clearly much more that needs to be done to reformulate food and drinks that contribute significantly towards energy, fats, sugars and salt to drive a measureable improvement in dietary intakes and towards achieving the dietary goals.

A combined approach including industry efforts to reformulate healthier products, consumer education, addressing the balance of promotions on offer to consumers and improvements to out of home catering are all required in order that positive dietary changes are achieved.

FSA Scotland will continue to monitor population intakes of foods and nutrients, and trends in purchase and promotions following sign up to the commitments within the Supporting Healthy Choices document.

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23 **http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1586_Contributing_Foods_Short_Report_final_17-3-2014.pdf**

24 **http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1279_S14035_Finalredmeat.pdf**

25 **http://euroglaces.eu/en/upload/docs/Edible_ices_codes/Code%20for%20Edible%20Ices%20Version%202013.pdf**

Appendices

Appendix 1

Revised Dietary Goals for Scotland **Published April 2013**

Calories	A reduction in calorie intake by 120 kcal/person/day Average energy density of the diet to be lowered to 125 kcal/100g by reducing intake of high fat and/or sugary products and by replacing with starchy carbohydrates (e.g. bread, pasta, rice and potatoes), fruits and vegetables
Fruit & Vegetables	Average intake of a variety of fruit and vegetables to reach at least 5 portions/person/day (>400g/day)
Oily Fish	Oil rich fish consumption to increase to one portion per person (140g) per week
Red Meat	Average intake of red and processed meat to be pegged at around 70g/person/day Average intake of the very highest consumers of red and processed meat (90g/person/day) not to increase
Fats	Average intake of total fat to reduce to no more than 35% food energy Average intake in saturated fat to reduce to no more than 11% food energy Average intake of trans fatty acids to remain below 1% food energy
Sugar	Average intake of NMES[i] to reduce to less than 11% of food energy in children and adults
Salt	Average intake of salt to reduce to 6g/day
Fibre	An increase in average consumption of fibre[j] to 18g/day by increasing consumption of wholegrains, pulses and vegetables

i NMES (Non-Milk Extrinsic Sugars) are also known as added or free sugars and are found in sweets, biscuits, soft drinks, added to breakfast cereals, table sugar, honey and fruit juice. They are not in milk or integrally present in the cells of food such as fruit and vegetables

j Non starch polysaccharide (NSP) as measured by Englyst method

Revised Dietary Goals for Scotland – basis of recommendations & monitoring

	Dietary Goal	Basis of recommendations	Monitoring change
Calories	A reduction in calorie intake by 120 kcal/person/day	Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight **http://www.scotland.gov.uk/Resource/Doc/302783/0094795.pdf**	Data on prevalence of overweight and obesity in from Scottish Health Survey Analysis of commercial data on total calories purchased
	Average energy density of the diet to be lowered to 125 kcal/100g by reducing intake of high fat and/or sugary products and by replacing with starchy carbohydrates (e.g. bread, pasta, rice and potatoes), fruits and vegetables.	Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight **http://www.scotland.gov.uk/Resource/Doc/302783/0094795.pdf**	Secondary analysis of Scottish data from the Living Costs and Food (LCF) module of the Integrated Household Survey
Fruit & Vegetables	Average intake of fruit and vegetables to reach at least 5 portions/person/day (>400g/day)	**http://www.nhs.uk/livewell/5aday/pages/5adayhome.aspx/Department of Health** Nutritional Aspects of the Development of Cancer. Report on health and social subjects 48. London: HMSO, 1998 World Health Organization. Diet, Nutrition and the Prevention of Chronic Diseases. Report of a Joint WHO/FAO Expert Consultation. Technical report series no 916. Geneva: 2003	Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey
Oily Fish	Oil rich fish consumption to increase to one portion per person (140g) per week	Scientific Advisory Committee on Nutrition. Advice on fish consumption: benefits & risks. London: TSO, 2004	Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey

Red Meat	Average intake of red and processed meat to be pegged at around 70g/person/day	SACN Iron and Health Report **http://www.sacn.gov.uk/pdfs/sacn_iron_and_health_report_web.pdf**	Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey
	Average intake of the very highest consumers of red and processed meat (90g/person/day) not to increase		
Fats	Average intake of total fat to reduce to no more than 35% food energy[k]	Department of Health. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Report on health and social subjects 41. London: HMSO, 1991	Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey
	Average intake in saturated fat to reduce to no more than 11% food energy	Department of Health. Nutritional Aspects of Cardiovascular Disease. Report on health and social subjects 46. London: HMSO, 1994 World Health Organization. Diet, Nutrition and the Prevention of Chronic Diseases. Report of a Joint WHO/FAO Expert Consultation. Technical report series no 916. Geneva: 2003	Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey
	Average intake of trans fatty acids to remain below 1% food energy	Scientific Advisory Committee on Nutrition. Update on trans fatty acids and health. London: TSO, 2007	National Diet and Nutrition Survey including the Scottish boost
Sugar	Average intake of NMES[l] to reduce to less than 11% of food energy in children and adults	Department of Health. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Report on health and social subjects 41. London: HMSO, 1999	Population data: Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey Children: Children's dietary survey

[k] All values as expressed as % food energy

[l] NMES (Non-Milk Extrinsic Sugars) are also known as added or free sugars and are found in sweets, biscuits, soft drinks, added to breakfast cereals, table sugar, honey and fruit juice. They are not in milk or integrally present in the cells of food such as fruit and vegetables

Salt	Average intake of salt to reduce to 6g/day	Scientific Advisory Committee on Nutrition. Salt and Health. London: TSO, 2003	Urinary sodium survey
Fibre	An increase in average consumption of fibre (non-starch polysaccharide) to 18g/day by increasing consumption of wholegrains, pulses and vegetables	Department of Health. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Report on health and social subjects 41. London: HMSO, 1991	Secondary analysis of Scottish data from the LCF module of the Integrated Household Survey

Appendix 2

Table A: Percentage contribution of foods groups[m] providing more than 1% of energy (calories) in Scotland from Living Cost and Food Survey secondary analyses 2001-10

Food Group		% Contribution to Energy (kcal)		
		All	Household	Eaten Out
1	Total Confectionery and Sweet Biscuits	9.8	9.1	0.7
2	Bread and Rolls	8.2	8.0	0.2
3	Total Processed Red Meat	7.4	6.5	0.9
4	Total Milk	6.1	6.0	0.1
5	Unclassified Foods	5.7	1.5	4.2
6	Total Fruit and Vegetables	4.8	4.7	0.2
7	Total Spreading Fats	4.7	4.6	0.0
8	Sugar Containing Soft Drinks	3.9	3.1	0.8
9	Alcoholic Drinks	3.9	2.6	1.3
10	Total Breakfast Cereal	3.6	3.6	0.0
11	Crisps and Savoury Snacks	3.3	2.9	0.4
12	Cakes, Pastries and Puddings	3.1	2.6	0.5
13	Pasta, Rice and Noodles	2.8	2.7	0.2
14	Total Cheese	2.6	2.5	0.0
15	Unprocessed Red Meat	2.5	2.4	0.1
16	Processed Potatoes	2.4	1.7	0.7
17	Cooking Oil	2.4	2.4	0.0
18	Sugar	2.2	2.2	0.0
19	Poultry	1.8	1.7	0.1
20	Savoury Sauces and Dressings	1.7	1.6	0.1
21	Ice Cream and Dairy Desserts	1.6	1.5	0.1
22	Potatoes	1.5	1.4	0.2
23	Ready Meals	1.5	1.5	0.0
24	Sandwiches	1.4	0.2	1.3
25	Other Baked Goods	1.4	1.2	0.1
26	Pizza	1.1	0.9	0.2
27	Yoghurt and Fromage Frais	1.1	1.0	0.0
28	Other Foods	7.6		

[m] A full list of the breakdown of each of the categories is available in the published paper: **http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1586_Contributing_Foods_Short_Report_final_17-3-2014.pdf**

Table B: Percentage contribution of foods groups[n] providing more than 1% of fat in Scotland from Living Cost and Food Survey secondary analyses 2001-10

Food Group		% Contribution to Total Fat		
		All	Household	Eaten Out
1	Total Spreading Fats	12.3	12.2	0.1
2	Total Processed Red Meat	12.2	10.9	1.3
3	Total Confectionery and Sweet Biscuits	10.3	9.7	0.6
4	Unclassified Foods	6.9	1.5	5.4
5	Total Milk	6.5	6.4	0.1
6	Cooking Oil	6.4	6.4	-
7	Total Cheese	5.1	5.0	0.0
8	Crisps and Savoury Snacks	4.7	4.1	0.6
9	Unprocessed Red Meat	3.9	3.8	0.1
10	Cakes, Pastries and Puddings	3.3	2.7	0.6
11	Savoury Sauces and Dressings	2.7	2.5	0.2
12	Poultry	2.3	2.2	0.1
13	Processed Potatoes	2.2	1.5	0.7
14	Ice Cream and Dairy Desserts	2.1	1.9	0.2
15	Bread and Rolls	1.8	1.7	0.1
16	Ready Meals	1.7	1.7	-
17	Sandwiches	1.7	0.2	1.5
18	Eggs	1.6	1.4	0.2
19	Nuts	1.3	1.3	0.0
20	Cream	1.2	1.2	0.0
21	Pizza	1.0	0.8	0.2
22	Eaten Out Main Meal Component	1.0	-	1.0
23	Total Fruit and Vegetables	1.0	0.9	0.1
24	Other Foods	6.6		

[n] A full list of the breakdown of each of the categories is available in the published paper: **http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1586_Contributing_Foods_Short_Report_final_17-3-2014.pdf**

Table C: Percentage contribution of foods groups[o] providing more than 1% of saturated fat in Scotland from Living Cost and Food Survey secondary analyses 2001-10

Food Group		% Contribution to Total Saturated Fats		
		All	Household	Eaten Out
1	Total Confectionery and Sweet Biscuits	14.0	13.2	0.9
2	Total Spreading Fats	14.0	13.8	0.2
3	Total Processed Red Meat	12.0	10.7	1.3
4	Total Milk	10.4	10.2	0.2
5	Total Cheese	8.2	8.1	0.1
6	Unclassified Foods	5.5	1.8	3.7
7	Unprocessed Red Meat	4.3	4.1	0.1
8	Crisps and Savoury Snacks	4.1	3.4	0.7
9	Cakes, Pastries and Puddings	3.7	3.1	0.6
10	Ice Cream and Dairy Desserts	3.5	3.2	0.3
11	Cream	2.0	1.9	0.0
12	Cooking Oil	1.9	1.9	-
13	Poultry	1.7	1.5	0.1
14	Sandwiches	1.3	0.2	1.1
15	Ready Meals	1.2	1.2	-
16	Eggs	1.1	1.0	0.1
17	Processed Potatoes	1.1	0.9	0.2
18	Savoury Sauces and Dressings	1.1	0.9	0.2
19	Bread and Rolls	1.1	0.9	0.2
20	Pizza	1.0	0.9	0.2
21	Other Foods	7.0		

[o] A full list of the breakdown of each of the categories is available in the published paper: **http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1586_Contributing_Foods_Short_Report_final_17-3-2014.pdf**

Table D: Percentage contribution of food groups[p] providing more than 1% of Non-Milk Extrinsic Sugars (NMES) in Scotland from Living Cost and Food Survey secondary analyses 2001-10

Food Group		% Contribution to Total NMES		
		All	Household	Eaten Out
1	Sugar Containing Soft Drinks	25.2	20.4	4.8
2	Total Confectionery and Sweet Biscuits	23.2	21.0	2.3
3	Sugar	14.5	14.5	0.0
4	Total Fruit and Vegetables	7.3	6.9	0.4
5	Cakes, Pastries and Puddings	5.8	5.1	0.7
6	Jam, marmalade, honey and sweet spreads	4.2	4.2	0.1
7	Ice Cream and Dairy Desserts	3.5	3.2	0.3
8	Total Breakfast Cereal	3.3	3.3	0.0
9	Alcoholic Drinks	3.0	1.0	2.0
10	Savoury Sauces and Dressings	2.4	2.4	0.0
11	Yoghurt and Fromage Frais	2.1	2.1	0.0
12	Unclassified Foods	1.0	0.7	0.4
13	Other Foods	4.5		

[p] A full list of the KWP food and drink categories is available in Table J of this appendix

Table E: The top 20 food and drink categories[q] contributing to energy (calories) purchases into the home in Scotland from KWP retail purchase data, year ending September 2013

Category	Percentage contribution to energy (kcal) purchase
Total Bread and Morning Goods	11.6%
Total Biscuits	6.3%
Fresh Fruit and Vegetables	6.3%
Total Red Meat and Products	5.6%
Total Milk	5.5%
Yellow Fats	5.2%
Total Ambient Take Home Confectionery	4.8%
Savoury Home Cooking	4.6%
Total Cakes and Pastries	3.9%
Total Alcohol	3.8%
Total Breakfast Cereals	3.5%
Take Home Savouries	3.4%
Total Cheese	2.8%
Regular Soft Drinks	2.5%
Total Poultry and Products	2.4%
Table Sugar	2.4%
Total Plain and Sweet Potatoes	2.4%
Ready Meals	1.9%
Plain Starchy Carbohydrates	1.9%
Sweet Home Cooking	1.8%

[q] A full list of the KWP food and drink categories is available in Table J of this appendix

Table F: The top 20 food and drink categories[r] contributing to total fat purchases into the home in Scotland from KWP retail purchase data, year ending September 2013

Category	Percentage contribution to total fat purchase
Yellow Fats	14.5%
Total Red Meat and Products	8.9%
Savoury Home Cooking	8.1%
Total Biscuits	6.7%
Total Milk	5.8%
Total Cheese	5.5%
Total Ambient Take Home Confectionery	4.9%
Take Home Savouries	4.9%
Total Bread and Morning Goods	4.9%
Total Cakes and Pastries	4.5%
Total Sausages	2.7%
Total Poultry and Products	2.6%
Savoury Pies and Pasties	2.4%
Ready Meals	2.1%
Total Cream	1.7%
Total Pickle, Table Sauce and Condiment	1.6%
Frozen Processed Potatoes	1.5%
Fresh Fruit and Vegetables	1.2%
Total Puddings and Desserts	1.2%
Total Breakfast Cereals	1.2%

[r] A full list of the KWP food and drink categories is available in Table J of this appendix

Table G: The top 20 food and drink categories[s] contributing to saturated fat purchases into the home in Scotland from KWP retail purchase data, year ending September 2013

Category	Percentage contribution to saturated fats purchase
Yellow Fats	14.6%
Total Red Meat and Products	9.2%
Total Milk	9.0%
Total Cheese	9.0%
Total Biscuits	8.4%
Total Ambient Take Home Confectionery	7.4%
Total Cakes and Pastries	5.2%
Total Bread and Morning Goods	3.4%
Savoury Home Cooking	3.1%
Total Cream	2.9%
Total Sausages	2.7%
Savoury Pies and Pasties	2.6%
Ready Meals	2.1%
Total Puddings and Desserts	1.9%
Total Poultry and Products	1.8%
Ice Cream	1.7%
Take Home Savouries	1.6%
Total Yoghurt	1.4%
Edible Ices and Frozen Dairy Desserts	1.3%
Sweet Home Cooking	1.2%

[s] A full list of the KWP food and drink categories is available in Table J of this appendix

Table H: The top 20 food and drink categories[t] contributing to total sugar purchases into the home in Scotland from KWP retail purchase data, year ending September 2013

Category	Percentage contribution to total sugar purchase
Fresh Fruit and Vegetables	13.1%
Dairy Products	11.8%
Total Fruit	11.7%
Table Sugar	10.7%
Total Ambient Take Home Confectionery	10.6%
Regular Soft Drinks	10.2%
Total Milk	8.9%
Total Biscuits	6.7%
Total Cakes and Pastries	5.8%
Sweet Home Cooking	5.3%
Total Bread and Morning Goods	3.7%
Total Vegetables and Salad Leaves	3.2%
Total Breakfast Cereals	3.1%
Pure Fruit Juice	2.6%
Total Yoghurt	2.4%
Breakfast Spreads	2.2%
Total Puddings and Desserts	2.1%
Ice Cream	1.7%
Total Alcohol	1.7%
Total Pickle, Table Sauce and Condiment	1.5%

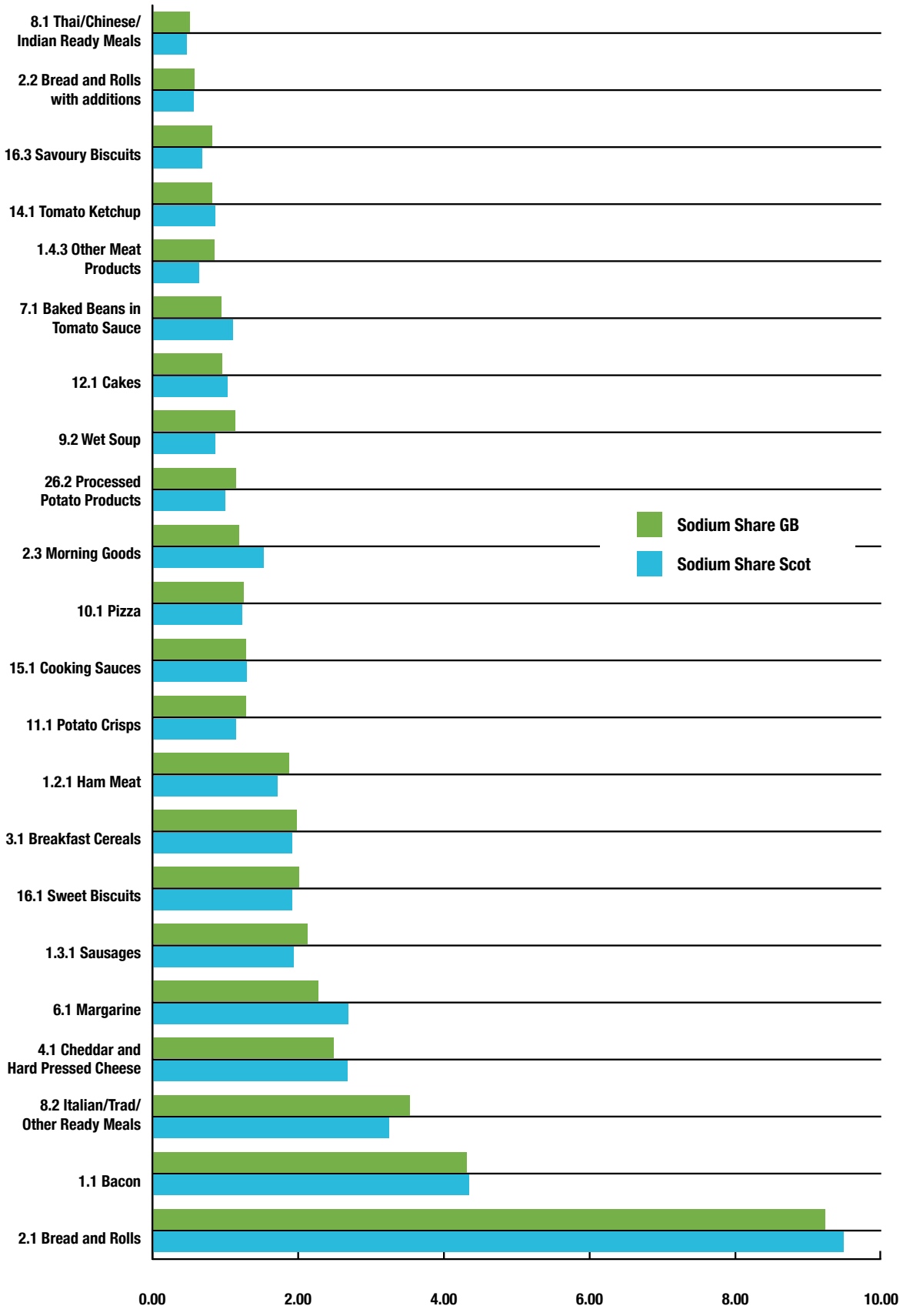
[t] A full list of the KWP food and drink categories is available in Table J of this appendix

Table J: List of Kantar Worldpanel (KWP) definitions

Category	Kantar 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 couscous excluding potatoes and sweet potatoes
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.
Take Home Savouries	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
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 and 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

Category	Kantar Definition
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
Sweet Biscuits	All sweet biscuits including digestive biscuits, shortbread, custard creams and chocolate biscuit bars etc.
Total Ambient Take Home 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 and 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 Soft Drinks (Ambient)	All ambient and chilled soft drinks, including squash, fruit juice and all carbonated drinks
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

Figure A: Percentage sodium contributions to the take home diet for Scotland and Great Britain (based on Kantar Worldpanel data for FSA Scotland)



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