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ESTIMATION OF FOOD AND NUTRIENT INTAKES FROM FOOD PURCHASE DATA IN SCOTLAND

2001-2012

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This work was carried out using data from the UK Data Archive, University of Essex http://www.data-archive.ac.uk/ Additional variables on sampling and income were provided by ONS, and SIMD data were obtained from Scottish Neighbourhood Statistics.

Executive Summary

Introduction

The prevalence of overweight and obesity in adults aged 16 to 64 in Scotland rose from 52.4% in 1995 to 62.6% in 2013 (Bromley et al., 2014). Whilst rates have remained fairly constant since 2008, Scotland has one of the highest prevalence rates of overweight and obesity in Europe (World Obesity, 2014). Obesity increases the risk of chronic conditions such as type 2 diabetes, hypertension, cardiovascular disease, certain cancers and osteoarthritis.

The results presented in this report support work by Food Standards Scotland and the Scottish Government to facilitate improvements to the diet in Scotland to help prevent obesity, as described in Supporting Healthy Choices, the Scottish Government and the previous Food Standards Agency in Scotland voluntary framework (2014) which sets out the action required to shape and better support healthier diets in Scotland. The framework is underpinned by the National Food and Drink Policy, Recipe for Success (Scottish Government, 2009), and the Preventing Overweight and Obesity Route Map (Scottish Government, 2010).

In 2013, the Revised Dietary Goals (SDGs) for Scotland (Scottish Government, 2013) were published, updating the previous Scottish Dietary Targets (SDTs) set in 1996 to "indicate the direction of travel, and assist policy development to reduce the burden of obesity and diet-related disease in Scotland" and to help to "facilitate improvements in the Scottish diet". The SDGs encompass recommendations for intakes of foods (fruit and vegetables, oily fish and red meat) and nutrients (energy, energy density, total fat, saturated fat, trans fatty acids, sugar (non-milk extrinsic sugars (NMES)), salt and fibre (non-starch polysaccharides (NSP)). Progress towards the SDGs is monitored using a combination of surveys, but principally using the secondary analysis of the Living Costs and Food Survey (LCFS), which is the annual UK food purchase survey. This is the method of choice to monitor the majority of the SDGs but it cannot be used to measure reduction in calories, high individual intakes of red and processed red meat, *trans* fatty acids, or sodium intake. The latter can only be measured robustly by analysis of 24 hour urine samples.

The LCFS is an annual household budget survey designed to collect information about household food and expenditure. Trends in population food and nutrient intakes towards evidence based goals have been monitored since 2001 using a secondary analysis of the LCFS (before 2008 known as the Expenditure and Food Survey (EFS)). The LCFS collects household food purchase and eating out data over a 14 day period. Using appropriate methodology, data on average population intakes appropriate for monitoring population level goals for specific food groups and nutrients can be produced.

Other surveys that collect data on dietary intake include the Scottish Health Survey (SHeS) (Bromley et al., 2014) and the UK National Diet and Nutrition Survey (NDNS) (Public Health England and Food Standards Agency, 2014). Neither survey provides annual data suitable for monitoring the SDGs. The SHeS does not monitor nutrients and although the NDNS in Scotland was boosted to provide a more robust analysis between 2010 and 2014, the sample size is too small to analyse trends over time and there is no previous NDNS dataset in Scotland that is large enough for comparison.

When using data from the LCFS, estimated food consumption and nutrient intakes are calculated from household food and eating out purchases. This process converts the LCFS purchase data to mean per capita food consumption and nutrient intakes to allow meaningful comparisons to be made between years. The LCFS is the most robust and cost effective method of monitoring the diet in Scotland, which includes information on foods and drinks consumed both inside and outside the home. All dietary survey methods have their limitations however, and it is useful to gather and compare evidence from a range of sources.

In 2012, Barton and Wrieden (2012) updated the first and second reports of the analysis of the food purchase data of the EFS and LCFS (Wrieden et al., 2006, Barton et al., 2010) and included revised, updated estimates of food consumption and nutrient intake for the Scottish population for 2001-2006 and new data for 2007-2009. This monitoring work has informed policy to date by reporting population trends in diet and nutrient intakes. It showed that little improvement had been made in the Scottish diet over the period 1996 to 2009 and that clear inequalities were apparent in food consumption when assessed by quintiles of the Scottish Index of Multiple Deprivation (SIMD). This current report updates the previous report, monitoring progress towards SDGs with the inclusion of data from 2010 to 2012.

Objective

The purpose of this work was to obtain robust estimates of food consumption and nutrient intakes for Scotland in order to monitor progress toward the SDGs. More specifically the aims were to calculate the results for the years 2010 to 2012, and analyse estimates by SIMD quintile.

Methods

LCFS data for each year, in its raw form, was obtained from the UK Data Archive. Data on sampling methodology were obtained from the UK Office for National Statistics (ONS) who also mapped SIMD quintiles to the data. Food consumption and nutrient intake in Scotland calculated in the previous reports (Wrieden and Barton, 2011, Barton and Wrieden, 2012) was updated by the addition of the years 2010 to 2012. Analysis was also carried out by SIMD quintile for the period of 2010 to 2012. Adjustments were made to allocate the correct proportion of each food to the appropriate food group and also made for waste. Data were analysed weighting to the Scottish population and taking account of sampling methods. Results are presented as population means (i.e. including consumers and non-consumers) for household and eating out foods combined.

Key Findings

- For the Scottish Dietary Goals (SDGs) measured using this analysis there was little progress towards meeting the goals over the period 2001 to 2012. This was apparent even amongst households in the least deprived areas.
- Despite evidence of progress towards the SDG for fruit and vegetables up to 2010, by 2012 consumption had dropped and this trend of increased intake was no longer apparent.
- Overall there were small but significant decreases in the percentage of food energy from saturated fat and non-milk extrinsic sugars (NMES) between 2001 and 2012, despite small apparent increases in saturated fat for 2012. However, no change in the percentage of food energy from

total fat was observed and population means for saturated fat, total fat and NMES remained considerably higher than the SDGs.

- Overall there was no change in average intakes of red and processed meat between 2001 and 2012 and no difference in the consumption by level of deprivation.
- Analysis by deprivation for 2010 to 2012 continued to show that households in the most deprived areas consumed significantly less fruit and vegetables, and oil rich fish than households in the least deprived areas.
- There was no difference in the consumption of total fat by level of deprivation. Energy from NMES continued to be significantly lower in households in the least deprived areas compared with households in the most deprived areas. The converse was found for saturated fat, with intakes lowest in households in the most deprived areas.
- Where a difference existed between households in the least and most deprived areas, there was no evidence to suggest that the gap in intake had decreased or increased compared to previous years.

Food/nutrient changes in relation to the Scottish Dietary Goals from 2001 to 2012
(mean intake per person per day except for oil rich fish)

Food / Nutrient	Scottish Dietary Goal	2001	2009	2012	Change Between 2001 and 2009[1]	Change Between 2001 and 2012[1]	Highest Consumption by SIMD[2]
Energy density	Average energy density of the diet to be lowered to 125 kcal/100g	171 kcal/ 100g	173 kcal/ 100g	170 kcal/ 100g	No Change	No Change	Most Deprived
Fruit and Vegetables	More than 400g	259g	279g	269g	↑	No Change	Least Deprived
Oil rich fish	Increase to one portion per person (140g) per week	26.7g	28.1g	27.5g	No Change	No Change	Least Deprived
Red Meat	Average intake of red and processed meat to be pegged at around 70g	64.6g	61.1g	61.5g	↓	No Change	No Difference
Fat	≤35% food energy	38.8%	39.0%	39.4%	No Change	No Change	No Difference
Saturated Fat	≤11% of food energy	15.5%	15.1%	15.5%	↓	↓[3]	Least Deprived
Sugar	NMES[4] to reduce to less than 11% of food energy in children and adults	15.5%	14.8%	14.4%	↓	↓	Most Deprived
Fibre	Increase in average consumption of fibre[5] to 18g	12.4g	12.9	11.8g	No Change	No Change	Least Deprived

[1]Based on P-value for Linear Association; [2]SIMD = Scottish Index of Multiple Deprivation, for 2009-2012; [3]Although the results for 2001 and 2012 were the same, there was a significant linear association for the 2001 to 2012 time period; [4]Non-milk extrinsic sugars - sugars, excluding those in milk and milk products that are not incorporated into the cellular structure of foods, such as fruit and vegetables e.g. sugar released from fruit when it is blended or juiced, table sugar, honey and added sugar in cakes, biscuit, sweets, breakfast cereals and soft drinks; [5]Non starch polysaccharide (NSP) as measured by Englyst method.

Conclusion

A robust standardised methodology has been used to calculate food and nutrient intakes on a population basis over a twelve year period. Continued monitoring over such duration allows comparisons to be made over time, enabling a clear assessment of any dietary change.

As in the previous report, little change has been found since 2001. Clear inequalities, between households in the least and most deprived areas, continue to be apparent in food consumption for the period 2010 to 2012. This work continues to be of great importance for monitoring dietary goals and informing policy on obesity, diet and social inequalities.

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List of Abbreviations Used

Defra	Department of the Environment, Food and Rural Affairs
EFS	Expenditure and Food Survey
g	gram
HH	Household
kcal	kilocalorie
LCFS	Living Costs and Food Survey
MJ	Megajoule = 1000 kilojoules
n	number
NDNS	National Diet and Nutrition Survey
NFS	National Food Survey
NMES	Non-Milk Extrinsic Sugar
NSP	Non-Starch Polysaccharides
ONS	Office for National Statistics
P	People
PP	Per Person
PW	People Weighted
RII	Relative Index of Inequality
SACN	Scientific Advisory Committee on Nutrition
SDG	Scottish Dietary Goal
SDT	Scottish Dietary Target
SHeS	Scottish Health Survey
SII	Slope Index of Inequality
SIMD	Scottish Index of Multiple Deprivation
UK	United Kingdom
WRAP	Waste and Resource Action Programme
95% CI	95% Confidence Interval
>	greater than
<	less than
%	percent / percentage

Explanatory note on some terms used in the report

Confidence Interval (CI) and 95% Confidence Interval (95% CI) of the Mean	A range of values that, it is estimated includes a population statistic at a specific level of confidence. The 95% confidence interval (95% CI) of the mean refers to the range of values 2 standard errors above and 2 standard errors below the mean. There is only a 5% chance that this range excludes the true mean of the population. The 95% confidence interval (CI) calculates the region around the mean where the true figure is likely to be. The narrower the confidence interval about the observed mean the more reliable it is.
Food Energy	The energy obtained from food and drink (excluding alcohol).
Mean	The mean intake is calculated by summing all intakes and dividing by the total number of people in the sample. Therefore it is moderated by the high and/or low consumers. When there are non-consumers in the sample (i.e. those with an intake = 0) the population average must take these into account. The 95% CI calculates the region around the mean where the true figure is likely to be. The narrower the 95% CI of the observed mean the more reliable it is.
Median	The median is the middle value of a set of figures, i.e. for an odd number of cases the median is the middle score. For an even number of cases the median is the average of the two middle scores. For normally distributed data the mean equals the median. The interquartile range represents 25% of values either side of the median. Data on food consumption and nutrient intake in a population is not usually normally distributed, some intakes will be very high or very low e.g. vitamin C or oil rich fish. For this reason it is more meaningful to give median food consumption and nutrient intake and to show interquartile ranges. This allows the proportion of low (e.g. for fruit and vegetables) or high consumers (e.g. for NMES) to be placed relative to the goal. Due to the nature of the LCFS data it is not possible to produce reliable medians.
Non-Milk Extrinsic Sugars (NMES)	Sugars, excluding those in milk and milk products that are not incorporated into the cellular structure of foods, such as fruit and vegetables e.g. sugar released from fruit when it is blended or juiced, table sugar, honey and added sugar in cakes, biscuit, sweets, breakfast cereals and soft drinks.
Percentage Food Energy (% Food Energy)	The percentage of food energy (the energy obtained from food and drink (excluding alcohol)) intake derived from a macronutrient i.e. fat, carbohydrate or protein.
Quintile	The portion of a frequency distribution containing one fifth of the total sample. For example the first quintile is the point with 1/5 of the data below it and 4/5 above it.
Scottish Index of Multiple Deprivation (SIMD)	The Scottish Index of Multiple Deprivation (SIMD) 2004, 2006 and 2009 identifies the most deprived areas across Scotland. It is based on indicators within seven individual domains of Current Income, Employment, Housing, Health, Education, Skills & Training, Geographic Access to Services & Telecommunications and Crime (which was added in 2006). SIMD is presented at data zone level, enabling small pockets of deprivation to be identified. The data zones are ranked from most deprived (1) to least deprived (6505) on the overall SIMD 2004 and on each of the individual domains. The 6505 data areas are ranked according to level of deprivation; these are then usually split into deciles with 1 being most deprived and 10 being most affluent. In this report the deciles have been combined to give quintiles. Thus Quintile 1 combines the most deprived deciles 1 and 2. SIMD 2004 was used for the analysis of data from 2001-2006 and SIMD 2009 was used for the analysis of data from 2007-2009.
Sodium	Sodium chloride is the chemical name for salt. 100 millimoles of sodium

	is equivalent to the SDG of 6g of salt based on SACN advice.
Significant	The term significant refers to statistical significance (at the 95% level). It is not intended to imply substantive importance.
Takeaway Foods	Any food bought for consumption within the home is classed as household purchases. This includes for example, fish and chips; drive through brought home; home deliveries of: pizza, Chinese and Indian meals (Defra, 2009).
UK Data Archive	The UK Data Archive is a centre of expertise in data acquisition, preservation, dissemination and promotion and is curator of the largest collection of digital data in the social sciences and humanities in the UK.
Years	For the purposes of this report, for ease of understanding, dates have been presented in the text as single years: 2001 = 2001/2002, which refers to April 2001 to March 2002 2002 = 2002/2003, which refers to April 2002 to March 2003 2003 = 2003/2004, which refers to April 2003 to March 2004 2004 = 2004/2005, which refers to April 2004 to March 2005 2005 = 2005/2006, which refers to April 2005 to March 2006 2006 onwards = refers to Jan to Dec of the year in question From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results. Removing the duplicated quarter from one of the years (2005/2006 or 2006) would have led to a smaller sample for the year in question which may have not been representative and may have been skewed due to seasonal purchases.
Periods	2001-2003 or 1st period = 2001/2002 - 2003/2004, which refers to April 2001 to March 2004 2004-2006 or 2nd period = 2004/2005 - 2006, which refers to refers to April 2004 to December 2006 2007-2009 or 3rd period refers to January 2007 to December 2009 2010-2012 or 4th period refers to January 2010 to December 2012

1. Background

1.1 Introduction

The prevalence of overweight and obesity, in adults aged 16 to 64 in Scotland, rose from 52.4% in 1995 to 62.6% in 2013, although the level has remained fairly constant since 2008 with the peak in 2010 of 63.3% (Bromley et al., 2014). Despite this, Scotland still has one of the highest prevalence rates of overweight and obesity in Europe (World Obesity, 2014). Obesity increases the risk of chronic conditions such as type 2 diabetes, hypertension, cardiovascular disease, certain cancers and osteoarthritis.

In 2010, the Scottish Government set out the route map towards healthy weight in Scotland with the aim for the majority of Scotland's population to be in a normal weight range throughout adult life thus avoiding the adverse consequences of overweight/obesity which includes a reduction in healthy life expectancy (Scottish Government, 2010). The route map outlines a range of preventative actions covering energy consumption, food product reformulation, portion sizes, stocking policies, pricing, packaging, and advertising with the aim to reduce the rising obesity levels in order to avoid the massive burden of health and social care costs. Progress towards these actions is being monitored through a set of 16 indicators and associated desired outcomes. A range of different surveys is being used to monitor these indicators including the secondary analysis of the Living Costs and Food Survey (LCFS) (which monitors the indicators of fat, saturated fat and non-milk extrinsic sugar (NMES) intake).

Trends in population food and nutrient intakes have been monitored from 2001 using the secondary analysis of the LCFS (before 2008 known as the Expenditure and Food Survey (EFS)) following the endorsement of the Working Group Report on Monitoring Scottish Dietary Targets (SDTs) who concluded that it was the most appropriate method for Scotland (Food Standards Agency in Scotland, 2004). Previous reports have monitored progress towards the SDTs and additional foods and drinks indicative of diet quality (further foods from the Scottish Diet report (Scottish Office, 1993) and takeaway foods) from 2001 to 2009 (Barton et al., 2010, Barton and Wrieden, 2012) and energy density (Wrieden and Barton 2011). This current report updates previous reports, monitoring progress towards SDGs with the inclusion of data from 2010 to 2012.

In 2013, Revised Dietary Goals for Scotland (SDG) (Scottish Government, 2013) were published (Table 1) updating the previous SDTs set in 1996 to "indicate the direction of travel, and assist policy development to reduce the burden of obesity and diet-related disease in Scotland" and to help to "facilitate improvements in the Scottish diet". The SDGs encompass recommendations for intakes of foods (fruit and vegetables, oily fish and red meat) and nutrients (energy, energy density, total fat, saturated fat, trans fatty acids, sugar (NMES), salt and fibre (non-starch polysaccharides (NSP))). Progress towards the SDGs is monitored using a combination of surveys, but principally using the secondary analysis of the Living Costs and Food Survey (LCFS).

The results presented in this report support work by Food Standards Scotland and the Scottish Government to facilitate improvements to the diet in Scotland to help prevent obesity. Further details of this work are described in Supporting Healthy Choices, the Scottish Government and the previous

Food Standards Agency in Scotland voluntary framework (2014) which sets out the action required to shape and better support healthier diets in Scotland. The framework is underpinned by the National Food and Drink Policy, Recipe for Success (Scottish Government, 2009), and the Preventing Overweight and Obesity Route Map (Scottish Government, 2010).

Table 1: Revised Dietary Goals for Scotland

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 per person per day (> 400g per 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 per person per day Average intake of the very highest consumers of red and processed meat (90g per person per 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[1] to reduce to less than 11% of food energy in children and adults
Salt	Average intake of salt to reduce to 6g per day*
Fibre	An increase in average consumption of fibre[2] to increase to 18g/day by increasing consumption of wholegrains, pulses and vegetables

*Not monitored using data from the LCFS; [1]Non-milk Extrinsic Sugars - See Explanatory Notes; [2]Non-starch polysaccharide (NSP) as measured by Englyst method.

Other surveys that collect data on dietary intake include the Scottish Health Survey (SHeS) (Bromley et al., 2013) and the UK National Diet and Nutrition Survey (NDNS) (Public Health England and Food Standards Agency, 2014). Neither survey provides annual data suitable for monitoring the SDGs. The SHeS does not monitor nutrients and although the NDNS in Scotland was boosted to provide a more robust analysis between 2010 and 2014, the sample size is too small to analyse trends over time and there is no previous NDNS dataset in Scotland that is large enough for comparison.

1.2 Purpose

The purpose of this work was to obtain robust estimates of food consumption and nutrient intakes for Scotland in order to monitor progress toward the SDGs. This work continues on from previous work to estimate food and nutrient intakes from purchase data for Scotland from the EFS for 2001-2006 (Barton et al., 2010) and EFS/LCFS for 2001-2009 (Barton and Wrieden, 2012). The results were calculated for the years 2010 to 2012 and presented for 2001 to 2012 for the population and by deprivation quintiles, derived from the Scottish Index of Multiple Deprivation (SIMD), for 2010-2012. In addition, the main contributors to intakes of energy, fat, saturated fat, NMES and NSP intakes were explored in order to inform Food Standards Scotland and Scottish Government policy on reformulation and further explain differences in the intake of some foods by deprivation which do not necessarily translate into differences in nutrient intakes (this work is detailed in a separate report) (Barton and Wrieden, 2015).

2. Methodology

2.1 Overview

The methodology reported by Barton *et al.* (2010) and Wrieden *et al*. (2014) (summarised below) was used to calculate mean food consumption, nutrient intake and energy density from LCFS data for 2010 to 2012 in order that comparisons could be made with results from previous years. LCFS data for each year, in its raw form, was obtained from the UK Data Archive, University of Essex. Population average intakes of foods, nutrients and energy density relating to the SDGs and other foods and drinks indicative of diet quality, have been calculated taking into account accepted definitions of foods. Further details on methodology, to those provided here, can be found in Appendix 1 and the advantages and disadvantages of using data from the LCFS are provided in Appendix 2.

2.2 Coding Frames

The detailed coding frames, reported by Barton *et al.* (2010) and Wrieden and Barton (2011), compiled for both household and eaten out food purchases, were used for the analysis. They list foods/drinks (and codes) which form part of each food based dietary goal (or food group of interest) (Appendix 3) or are included within the food and milk method of calculating energy density and provide details of conversion factors applied to the food weights (Appendix 4).

2.2.1 Conversion Factor

Conversion factors were applied to food purchases to estimate the actual amount of each food that was consumed. They were calculated (for each food code) for the proportion of fruit, vegetable, meat etc. in a composite food; for the proportion of food in a food grouping (where it bridges more than one food grouping); raw to cooked weight (where appropriate) and proportion of inedible waste.

2.2.2 Edible Waste

Estimates of edible waste for the UK population published by WRAP (2008) have been mapped by Defra to each of the food codes used in the LCFS (Appendix 5). Inedible waste (i.e. bone) was taken into account when calculating the conversion factor for each food code (Appendices 3 and 4).

2.3 Data Handling

Appendix 6 provides a flowchart which illustrates the data handling process for data from each year, which were then merged in SPSS to obtain one working data file. Data on sampling strata and clusters, and SIMD (as quintiles), were obtained from the UK ONS. Data on SIMD quintiles by postcode were initially obtained from Scottish Neighbourhood Statistics and sent to ONS to link to anonymised case IDs.

In brief, the raw LCFS data was linked to a table constructed from the coding frame, which listed each food grouping, each food within these groupings and the appropriate conversion and waste factors to be applied to the calculations. Household consumption minus waste (based on purchases), for two weeks, for each food code was multiplied by the appropriate conversion factor and summed by food

grouping. This was then divided by the number of individuals in the household and divided by 14 to obtain the mean daily consumption per person.

For nutrients: household consumption data minus waste (based on purchases) for each food code was multiplied by the appropriate nutrient content per gram (nutrient databank provided by Defra) to provide the nutrient intake per food. The food composition data included within this databank originate from the NDNS, with each of the Defra food codes having at least one NDNS composition code. Where more than one NDNS code is required to make up a food type from the EFS/LCFS, a weighted average nutrient composition is calculated based on market share estimates. The nutrient composition data was supplied to Defra by the FSA for 2001-2009 and by the Department of Health and Public Health England for 2010 onwards.

Household, eaten out and combined nutrient intakes for foods were then summed for each household. These were then divided by the number of individuals in the household and divided by 14 to obtain the mean daily intake per person for each nutrient.

Energy density was calculated for food and milk (Wrieden et al., 2014) in 3 stages and quintiles of energy density were calculated by year (to negate any difference in energy density over time).

1. Calculating Weight of Food/Milk - The total weight of food/milk for each household was calculated by summing the weights of each food after making adjustments for waste and multiplying by the adjustment factors described previously.
2. Calculating Energy Content of Food/Milk - The total energy from food/milk for each household was calculated by summing the energy content of each food after making adjustments for waste only, as the nutrient values in the database are based on the foods in their purchased form not in the form they are consumed.
3. Calculating energy density - the energy density values per 100g for each household were calculated by dividing the total household energy content for food/milk (2) by the total household weight for food/milk (1) and multiplying by 100.

2.4 Analysis of Data and Presentation of Results

Food and nutrient data were exported from Access to SPSS and merged with the additional variables file as described in Appendix 1. Due to the multi-staged stratified sampling procedure of the LCFS, data were analysed using Descriptive Statistics and General Linear Models within the Complex Samples module of SPSS, version 19 (SPSS Inc., Chicago, IL, USA). Sampling of the EFS/LCFS is designed in such a way to ensure that the results are representative of the population of the UK (Office for National Statistics, 2012) and each of the survey regions, of which Scotland is one. The data were weighted according to the sampling methodology (of the original data collected by ONS (Office for National Statistics, 2010) to reduce the effect of non-response bias and to ensure that data were representative of the population) in order that estimates obtained more accurately reflected that of the Scottish population and household composition. The weights are produced in two stages: firstly the data are weighted to compensate for non-response (sample-based weighting) and secondly the sample distribution is weighted so that it matches the population distribution in terms of region, age

group and sex (population based weighting) (Department for Environment Food & Rural Affairs (Defra), 2013b). The weights were provided by Defra.

General linear modelling was used to obtain mean, 95% confidence intervals (95% CI) and an indication of statistical significance for differences and trends. Linear associations between food consumption/nutrient intake and year or SIMD quintile were assessed by linear regression. Wald tests were used to give an indication of statistical significance for differences and trends and adjustment for multiple comparison was made using least significance difference method.
Results are presented as population per capita means (i.e. including consumers and non-consumers) for household and eaten out foods combined, in g per day for foods and drinks with the exception of fish which is expressed in g per week. Nutrient intakes are presented as kcal/100g for energy density; percentage of food energy for fat, saturated fat and NMES; and g per day for NSP. In addition energy intake is presented as mega joules (MJ) and kcal for comparison purposes. SIMD results are presented in quintiles with quintile 1 representing the most deprived fifth of the population and quintile 5 the least deprived.

In addition, for SIMD, the Slope Index of Inequality (SII) was calculated as a measure of inequality of food consumption and nutrient intake. The Slope Index of Inequality (SII) is a measure of absolute inequality (ScotPHO, 2007) used to assess the absolute difference between the least and most deprived individuals. The SII was derived by ranking each household by SIMD (within the 3 year period SIMD was investigated within i.e. 2001-2003, 2004-2006, 2007-2009 and 2010-2012). The rank scores obtained were divided by the sample size (for the appropriate 3 year period) to obtain a value between 0 and 1, weighted to the relative distribution across SIMD quintiles. Linear regression analysis (weighted least squares) of the mean intake within each SIMD quintile was used to calculate the SIIs for each food / nutrient. The regression (or slope) coefficient from the regression analysis is the SII. For interpretation purposes the SII is the mean difference in intake between the hypothetically most deprived relative to the hypothetically least deprived person in the population (Shaw *et al*., 2007). In order to compare a measure of inequality across populations or years, the relative index of inequality (RII) was calculated, which is the SII divided by the overall population mean food consumption or nutrient intake. This helps when making comparisons of the magnitude of the association between the same socio-economic position measures over time. For both SII and RII, the underlying assumption is that there is a linear gradient across the deprivation variable. Further detail is provided in Appendix 8.

Food consumption and nutrient intakes (means) relating to the SDGs (Table 1) and other foods, drinks and nutrients indicative of diet quality are presented from 2001 through to 2012 (see explanatory notes for further details on sampling years). Food consumption and nutrient intakes for Scotland are also presented for combined year's data from the LCFS for SIMD. Data from 2010 to 2012 are combined and presented by quintiles of the SIMD distribution (with data from Barton *et al.* (2010) and Barton and Wrieden (2012) from 2001 to 2003, 2004 to 2006 and 2007 to 2009 provided in appendix 7 for comparison purposes).

Results tables by SIMD also provide SII and RII figures with 95% confidence intervals (95% CI). Appendix 8 presents these figures for 2001-2003, 2004-2006, 2007-2009 and 2010-2012 together to allow for a comparison to be made over time of absolute and relative differences. A positive SII indicating that consumption / intake is higher in the least deprived and a negative figure indicating that consumption / intake is greatest in the most deprived.

Tables have been re-organised since the 2001-2009 report to match the SDGs (Table 1) such that foods that were previously dietary targets and not re-affirmed as SDGs have been placed in the "Foods Indicative of Diet Quality" tables and vice versa.

3. Results

3.1 Food Consumption Relating to the Scottish Dietary Goals

For the Scottish Dietary Goals (SDGs) measured using this analysis there was little progress towards meeting the goals over the period 2001 to 2012.

3.1.1 Food Consumption Relating to the Scottish Dietary Goals by Year

Fruit and Vegetables

Between 2001 and 2012 there was no significant increase in intakes of fruit and vegetables. Table 2 and Figure 1 shows that there was a small increase in mean consumption of fruit and vegetables in the population from 2001 to 2010. Intakes of fruit and vegetables (including fruit and vegetable juices and baked beans) had gradually increased from 259g/day in 2001 to 286g/day in 2010 however intakes were 269g/day in 2012. This equates to just over three portions per day and is considerably lower than the goal of 400g or five portions per day. The small increase in total fruit and vegetables to 2010 was due to an increase in fruit consumption with no significant change to vegetable consumption over the period. Inclusion of fruit juice increases fruit and vegetable consumption figures by the equivalent of half a portion per day; however the proportion of fruit to fruit juice remained similar over the time period.

Mean fruit and vegetable consumption remains about one and a half portions short of the '5 a day' population goal

There was no significant increase in fruit and vegetable consumption over the 12 year period to 2012

Oil Rich Fish

There was no significant change in oil rich fish consumption between 2001 and 2012, despite a gradual increase of oil rich fish from 26.7g/week in 2001 to 38.9g/week in 2005. Intakes in 2012 were 27.5g/day (Table 2, Figure 3) which is considerably less than the SDG of 140g/week.

The increase in oil rich fish consumption seen from 2001-2005 has not continued and mean intakes remain around a fifth of what they should be

Total Red Meat

There has been no significant change in the intake of total red meat since 2001. Mean daily consumption appears to have decreased slightly between 2001 and 2012 with intakes in 2012 of 61.5g compared to 64.6g in 2001 (Table 2, Figure 5). This was partly accounted for by a fall in the other red meat products group (which includes the meat portion of sausages, meat pies, corned beef, burgers and pate and is a component of total red meat).

3.1.2 Food Consumption Relating to the Scottish Dietary Goals by SIMD Quintile (2010-2012)

Fruit and Vegetables

Table 3 and Figure 2 shows a continued clear gradient in fruit and vegetable consumption by SIMD quintile. In the most deprived quintile (Quintile 1), mean daily consumption was 205g compared with 311g in the least deprived quintile (Quintile 5) for 2010 to 2012. This positive linear trend was highly significant, P<0.001.

Just over two and a half portions of fruit and vegetables were consumed in the most deprived fifth of the population compared to almost four portions in the least deprived fifth

Oil rich fish

Consumption of oil rich fish was also highest in the least deprived quintile (Quintile 5) with mean weekly consumption 39.2g compared to 19.0g in the most deprived (Table 3, Figure 4). This difference is due to fewer consumers of oil rich fish in the most deprived quintile, rather than lower intakes by consumers. Intakes are considerably lower than the SDG for all quintiles of SIMD.

Total Red Meat

There was no statistical difference in total red meat intake by SIMD (Table 3, Figure 6), with mean intakes in all quintiles not exceeding 70g/day.

Results tables for 2001-2003, 2004-2006 and 2007-2009 from Barton *et al*., (2012) are provided in Appendix 7 for comparison. Comparison over time shows that results from the earlier time periods provided similar differences to those presented for 2010-2012 with statistically significant results being consistent over the 4 time periods with the exception of those for total red meat.

Analysis by SII and RII confirm the above differences by SIMD (for fruit and vegetables, oil rich fish and total red meat), in absolute and relative terms. Appendix 8 provides the results of the SII and RII analysis over time showing that there has been no significant change in inequalities and that absolute and relative inequalities in food intakes have not changed appreciably between 2001 and 2012. The magnitude of the inequalities is substantial for some foods, e.g. fruit and vegetables where the difference is the equivalent of two portions.

Table 2: Consumption of Scottish Dietary Goal Foods by Year, 2001 to 2012 - EFS / LCFS data (g/person/day with the exception of fish g/person/week)

Food	Scottish Dietary Goal	2001 Mean 95% CI	2002 Mean 95% CI	2003 Mean 95% CI	2004 Mean 95% CI	2005 Mean 95% CI	2006[1] Mean 95% CI	2007 Mean 95% CI	2008 Mean 95% CI	2009 Mean 95% CI	2010 Mean 95% CI	2011 Mean 95% CI	2012 Mean 95% CI	*P-value for Linear Association*
Fruit and Vegetables[2, 3]	400g per day	259 241, 278	262 242, 282	247 227, 267	267 244, 290	284 264, 304	276 257, 296	291 267, 315	285 265, 304	279 258, 299	286 260, 311	249 228, 270	269 244, 293	*0.234*
Fruit[2]		133 119, 146	136 121, 152	129 115, 143	140 126, 154	153 139, 167	148 136, 160	165 148, 183	154 139, 169	145 131, 158	150 133, 166	132 118, 145	140 120, 159	*0.282*
Vegetables[3]		126 118, 135	126 118, 134	118 109, 127	127 116, 137	131 122, 140	128 117, 139	125 115, 136	131 121, 141	134 122, 146	136 119, 153	117 108, 127	129 120, 139	*0.352*
Oil Rich Fish	140g per week	26.7 22.7, 30.8	28.8 22.5, 35	30.9 24.7, 37.2	31.9 25.5, 38.3	38.9 23.3, 54.5	34.4 27.4, 41.4	30.1 24.6, 35.5	30.3 23.9, 36.7	28.1 23.4, 32.7	25.9 21.8, 30.1	34.9 26.2, 43.5	27.5 22.8, 32.2	*0.798*
Total Red Meat[4]	70g per day	64.6 59.9, 69.3	64.5 60.7, 68.4	66.3 62.2, 70.3	61.1 57.3, 64.9	62.1 58.3, 65.9	60.1 56.3, 63.9	64.8 58.6, 71.0	58.1 52.3, 63.9	61.1 57.0, 65.1	60.2 55.4, 64.9	62.0 55.2, 68.7	61.5 57.1, 65.9	*0.051*
n Households		*619*	*585*	*546*	*590*	*566*	*577*	*500*	*494*	*543*	*464*	*495*	*477*	
n People		*1414*	*1342*	*1266*	*1329*	*1285*	*1365*	*1093*	*1058*	*1222*	*1030*	*1088*	*1063*	
n People Weighted[5]		*5015*	*4967*	*4952*	*4948*	*4939*	*4906*	*5040*	*5143*	*5181*	*5109*	*5117*	*5111*	

Household and eating out consumption combined. [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Fruit includes fruit and vegetable juice; [3]Vegetables include baked beans; [4]Meat portion only – see appendices 1 & 3 for methodology; [5]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Table 3: Consumption of Scottish Dietary Goal Foods by SIMD Quintile, 2010 to 2012 Combined - LCFS data (g/person/day, fish g/person/week)

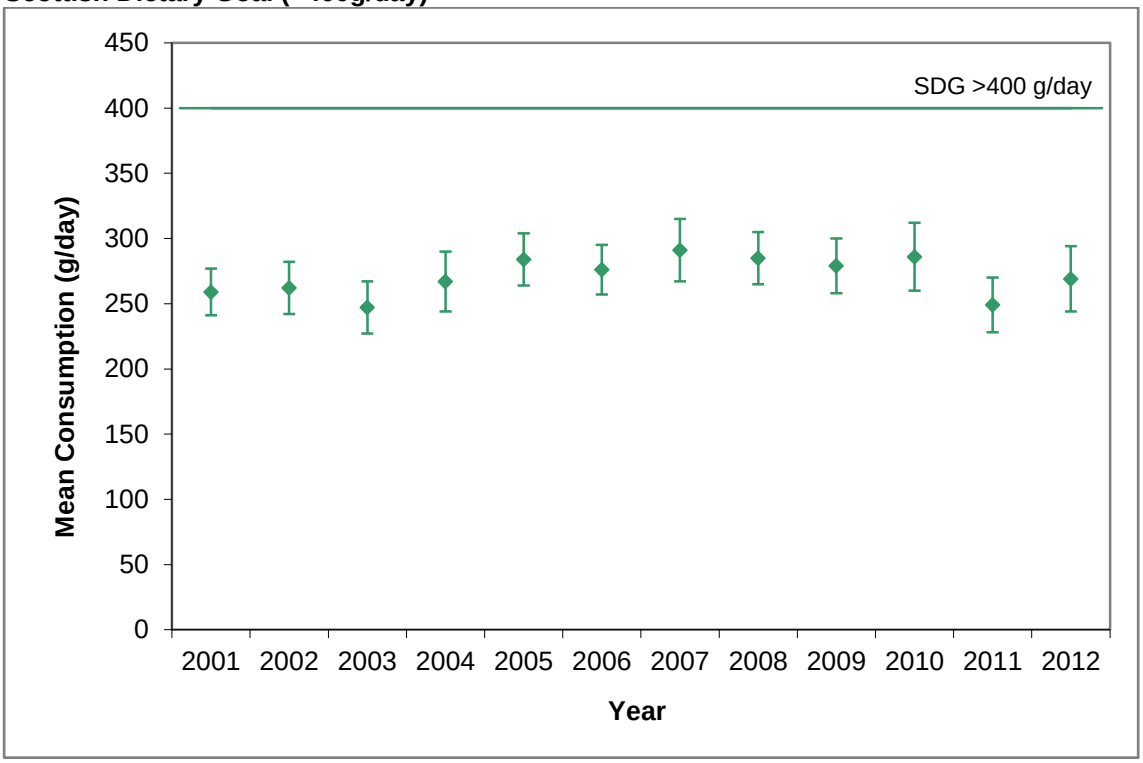
Food	Scottish Dietary Goal	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII** 95% CI	RII*** 95%CI
Fruit and Vegetables[1,2]	400g per day	205	222	299	303	311	***<0.001***	148	0.55
		175, 235	201, 244	254, 344	281, 325	286, 336		105, 192	0.39, 0.72
Fruit[1]		99.8	110	163	159	169	***<0.001***	95.2	0.68
		87.6, 112	94.9, 126	133, 194	143, 175	152, 186		66.6, 123.7	0.48, 0.88
Vegetables[2]		105	112	135	144	142	***<0.001***	53.3	0.42
		83.2, 127	102, 122	118, 152	130, 157	129, 155		27.6, 79.0	0.22, 0.62
Oil Rich Fish	140g per week	19.0	29.2	28.2	31.4	39.2	***<0.001***	22.6	0.77
		15.1, 22.9	17.8, 40.7	19.8, 36.6	22.1, 40.7	30.9, 47.5		10.9, 34.2	0.37, 1.16
Total Red Meat[3]	70g per day	63.4	58.8	64.9	62.7	56.7	*0.347*	-5.5	-0.09
		53.6, 73.2	54.9, 62.8	60.4, 69.4	57.2, 68.1	51.0, 62.4		-17.0, 6.0	-0.28, 0.10
n Households		*303*	*285*	*251*	*279*	*318*		*1436*	*1436*
n People		*667*	*588*	*561*	*650*	*715*		*3181*	*3181*
n People Weighted[4]		*3340*	*2819*	*2763*	*3031*	*3383*		*15336*	*15336*

Household and eating out consumption combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]Fruit includes fruit and vegetable juice; [2]Vegetables include baked beans; [3]Meat portion only – see appendices 1 & 3 for methodology; [4]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Figure 1: Mean (with 95% CI) fruit and vegetable consumption by year 2001 - 2012 compared to Scottish Dietary Goal (>400g/day)



Fruit = Fruit including fruit (and vegetable) juice; Vegetables = Vegetables including baked beans

Figure 2: Mean (with 95% CI) fruit and vegetable consumption by SIMD quintile compared to Scottish Dietary Goal (>400g/day)

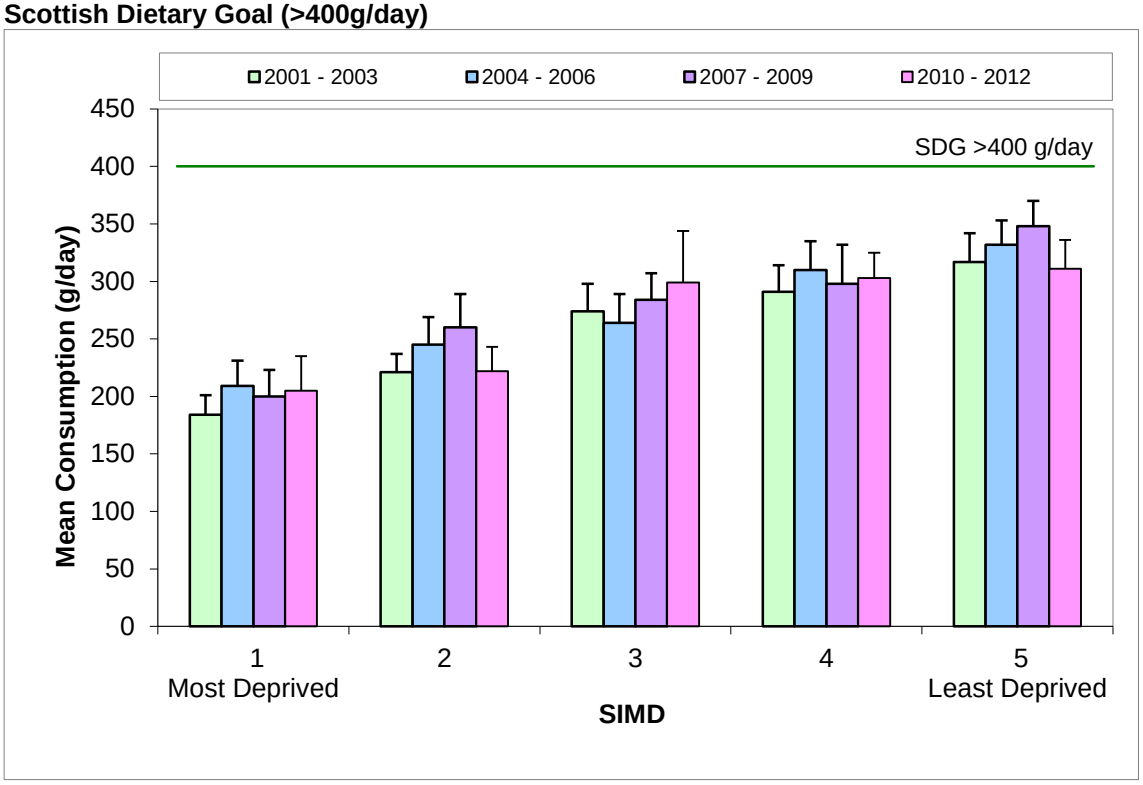


Figure 3: Mean (with 95% CI) oil rich fish consumption by year 2001 - 2012 compared to Scottish Dietary Goal (140g/week)

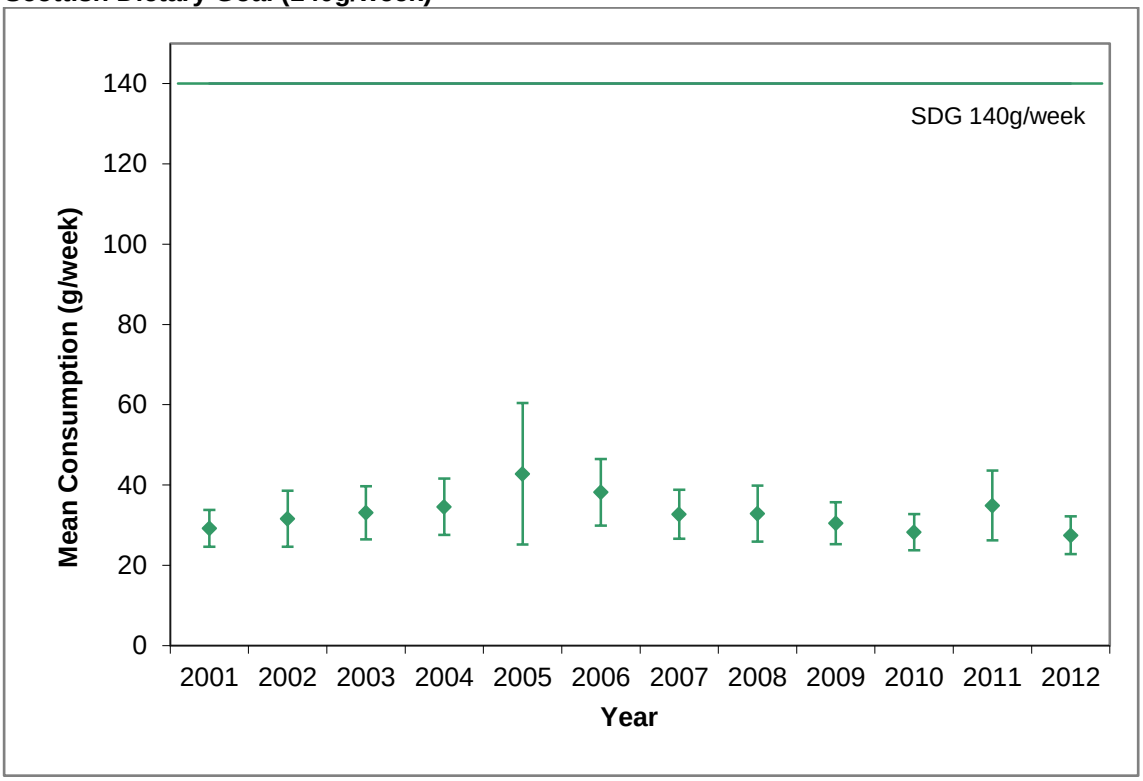


Figure 4: Mean (with 95% CI) oil rich fish consumption by SIMD quintile compared to Scottish Dietary Goal (140g/week)

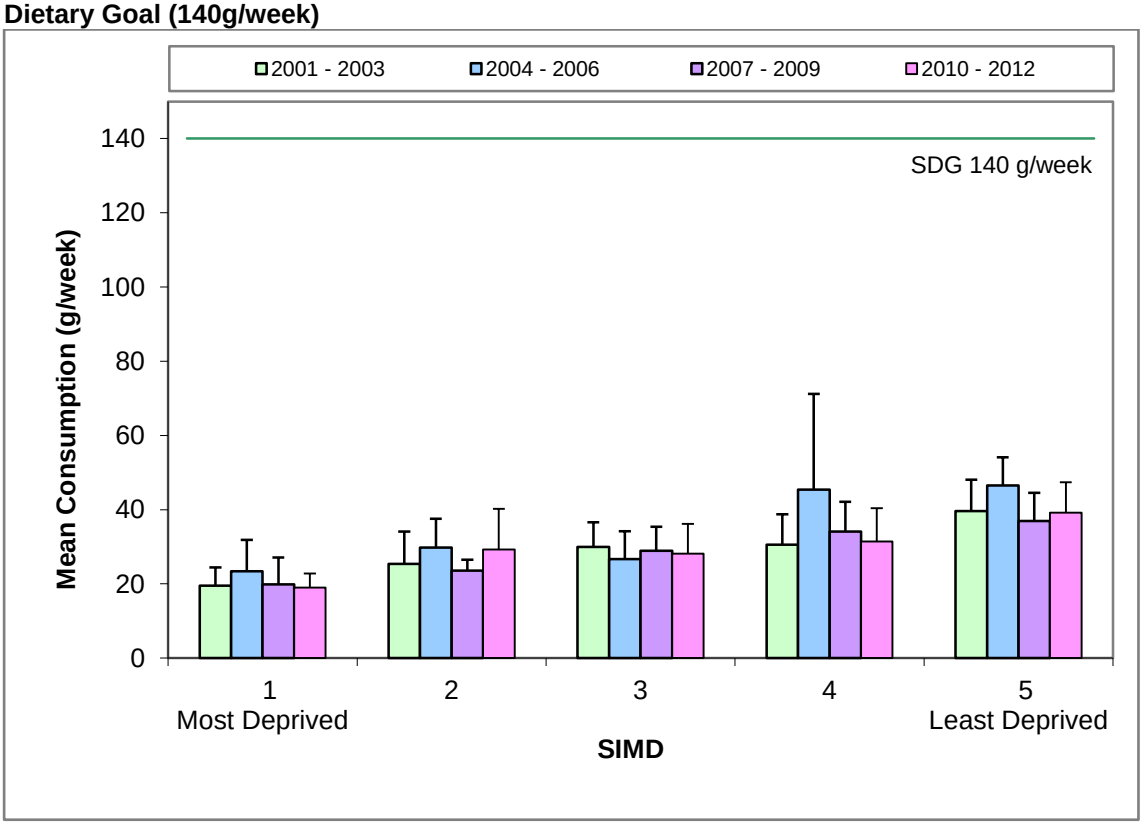


Figure 5: Mean (with 95% CI) total red meat consumption by year 2001 - 2012 compared to Scottish Dietary Goal (<70/day)

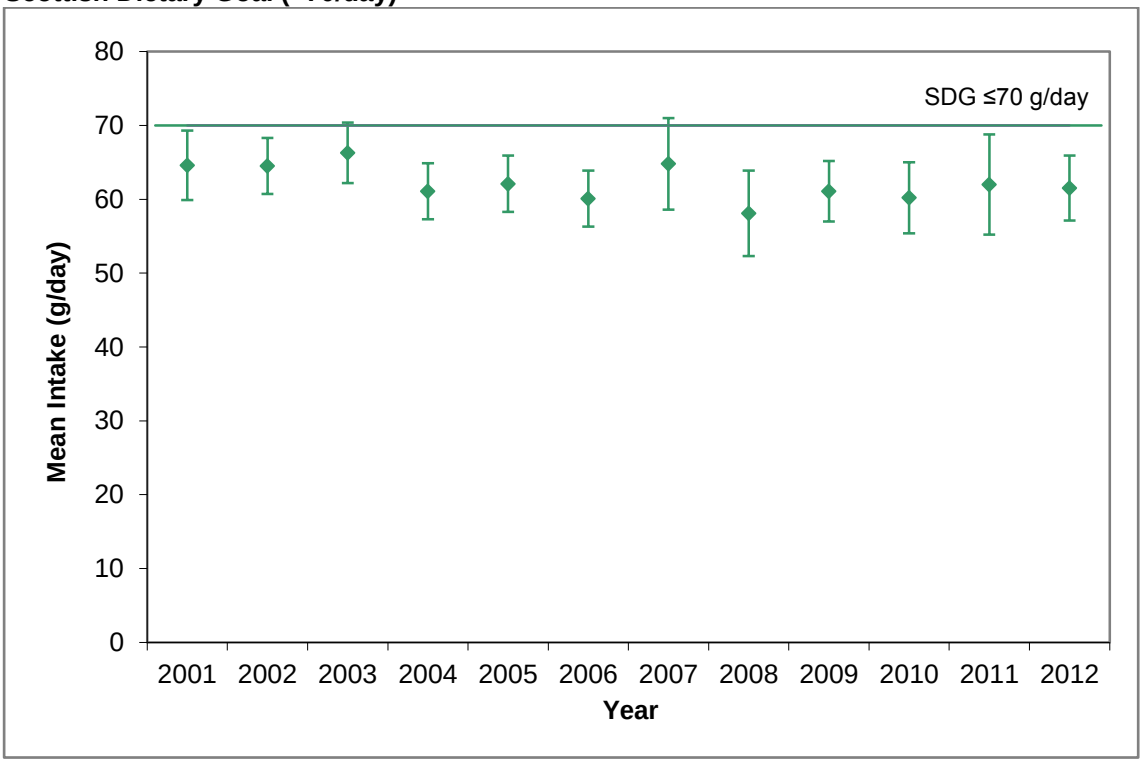
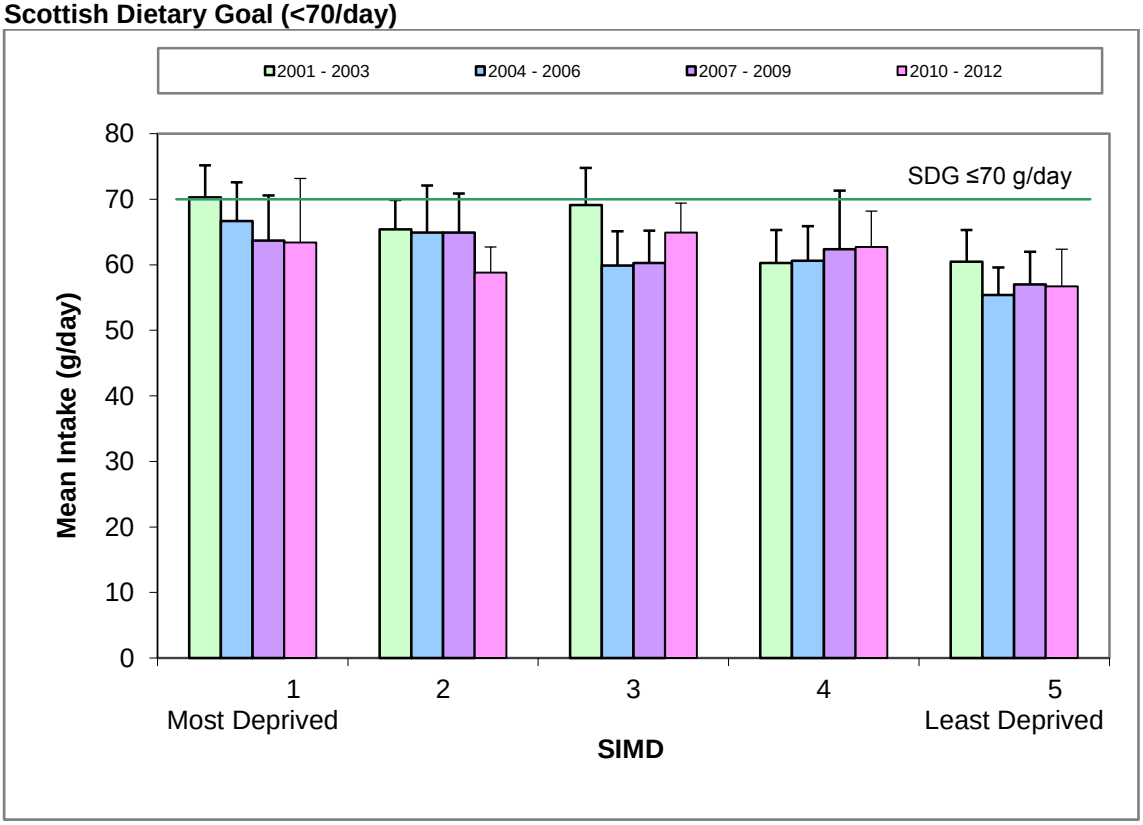


Figure 6 : Mean (with 95% CI) total red meat consumption by SIMD quintile compared to Scottish Dietary Goal (<70/day)



3.2 Nutrient Intake Relating to the Scottish Dietary Goals

There was little change in consumption of the SDG nutrients between 2009 and 2012 and none of the SDGs were met by 2012.

3.2.1 Nutrient Intake Relating to the Scottish Dietary Goals by Year

There has been no significant change in energy density (Table 4, Figure 7), percentage of energy from total fat (Table 4, Figure 9), or intakes of NSP (Table 4, Figure 15) between 2001 and 2012. A significant reduction was found for the percentage of energy from saturated fat (Table 4, Figure 11) and NMES (Table 4, Figure 13), although intakes appear to have risen in 2012. The percentage of food energy contributed by saturated fat was 15.5% in 2012 (P-value of linear association = 0.018). For NMES, the percentage of food energy contributed rose from 2001 to 2003 (from 15.5% to 16.1%) but has steadily fallen to 14.4% in 2012, despite a rise to 15.4% in 2010. The overall fall in % energy from NMES was statistically significant (P-value of linear association < 0.001).

Saturated fat and non-milk extrinsic sugar intakes (expressed as a percentage of food energy) have fallen slightly between 2001 and 2012

3.2.2 Nutrient Intake Relating to the Scottish Dietary Goals by SIMD Quintile (2010-2012)

Energy density was significantly lower in the least deprived quintile (Quintile 5) at 168kcal/100g, compared with 179kcal/100g in the most deprived quintile (Quintile 1) (P-value of linear association = 0.011) (Table 5 and Figure 8).

Energy density was highest in the most deprived fifth of the population

No significant difference was found in percentage of energy from total fat (Table 5, Figure 10). Saturated fat intake was significantly lower in the most deprived quintile (Quintile 1) at 14.9% of food energy compared with 15.5% in the least deprived quintile (Quintile1) (P-value of linear association = 0.033) (Table 5 and Figure 12).

Saturated fat intake (expressed as a percentage of food energy) was highest in the least deprived fifth of the population

NMES intake was significantly lower in the least deprived quintile (Quintile 5) at 14.1% of food energy, compared with 15.1% of food energy in the most deprived quintile (Quintile 1) (P-value of linear association = 0.031) (Table 5, Figure 14).

Non-milk extrinsic sugar intake (expressed as a percentage of food energy) was highest in the most deprived fifth of the population (which also had the highest consumption of soft drinks)

A significant difference was also found in intakes of NSP by SIMD quintile with intakes significantly higher in the least deprived quintile (Quintile 5) at 12.9g/day, compared with 11.1g/day in the most deprived quintile (Quintile 1) (Table 5, Figure 16) (P-value of linear association <0.001). However mean energy density and intakes of both NMES and NSP in the least deprived quintile of SIMD still failed to meet recommended amounts.

Non-starch polysaccharide intake was highest in the least deprived fifth of the population

Results tables for 2001-2003, 2004-2006 and 2007-2009 from previous reports (Barton et al., 2010, Barton and Wrieden, 2012) are provided in Appendix 7 for comparison.

Analysis by SII and RII confirm the above differences by SIMD in absolute and relative terms. Appendix 8 provides the results of the SII and RII analysis over time showing that there has been no significant change in inequalities from 2001 to 2012.

Table 4: Intake of Scottish Dietary Goal Nutrients by Year, 2001 to 2012 - EFS / LCFS data (units/person/day)

Nutrient	Scottish Dietary Goal	2001	2002	2003	2004	2005	2006[1]	2007	2008	2009	2010	2011	2012	*P-value for Linear Association*
		Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	
Energy Density kcal/100g	125kcal/100g	171	169	172	172	171	168	173	171	173	175	175	170	*0.234*
		168, 175	166, 172	169, 175	168, 176	167, 175	165, 172	169, 176	167, 175	168, 177	171, 178	170, 180	166, 174	
% Food Energy - Fat	≤35%	38.8	38.7	38.9	38.6	38.9	38.7	38.6	39.0	39.0	38.7	39.0	39.4	*0.214*
		38.1, 39.6	38.1, 39.2	38.2, 39.7	38.0, 39.2	38.2, 39.6	38.0, 39.4	38.0, 39.3	38.3, 39.6	38.4, 39.6	37.8, 39.7	38.4, 39.7	38.5, 40.4	
% Food Energy - Saturated Fat	≤11%	15.5	15.6	15.6	15.4	15.4	15.7	15.3	15.3	15.1	15.0	15.0	15.5	***0.018***
		15.2, 15.8	15.3, 15.9	15.2, 16.0	15.1, 15.7	15.1, 15.7	15.3, 16.0	15.0, 15.6	15.0, 15.7	14.8, 15.4	14.5, 15.5	14.7, 15.4	15.1, 15.9	
% Food Energy - NMES	<11%	15.5	15.6	16.1	15.5	15.2	15.0	14.9	15.0	14.8	15.4	14.0	14.4	***<0.001***
		14.9, 16.1	15.1, 16.1	15.3, 16.8	14.8, 16.2	14.6, 15.9	14.4, 15.7	14.4, 15.5	14.4, 15.6	14.2, 15.5	14.7, 16.1	13.2, 14.9	13.7, 15.2	
NSP	18g/day	12.4	12.4	12.1	12.2	12.5	12.4	12.7	12.8	12.9	13.0	11.9	11.8	*0.856*
		11.9, 12.9	11.9, 12.9	11.6, 12.7	11.6, 12.8	12.0, 13.0	11.8, 13.0	12.0, 13.3	12.0, 13.6	12.2, 13.5	12.1, 13.8	11.2, 12.5	11.2, 12.4	
Food Energy - kcal		2066	2047	2044	1997	1999	1977	2081	2013	2022	2056	1856	1913	***0.003***
		1999, 2133	1983, 2111	1964, 2124	1921, 2073	1917, 2081	1909, 2045	1982, 2180	1892, 2135	1951, 2093	1950, 2162	1758, 1953	1827, 2000	
Food Energy - MJ		8.7	8.6	8.6	8.4	8.4	8.3	8.7	8.5	8.5	8.5	7.8	8.0	***0.001***
		8.4, 9.0	8.3, 8.9	8.3, 8.9	8.1, 8.7	8.1, 8.7	8.0, 8.6	8.3, 9.2	7.9, 9.0	8.2, 8.8	8.0, 8.9	7.4, 8.2	7.7, 8.4	
n Households		*619*	*585*	*546*	*590*	*566*	*577*	*500*	*494*	*543*	*464*	*495*	*477*	
n People		*1414*	*1342*	*1266*	*1329*	*1285*	*1365*	*1093*	*1058*	*1222*	*1030*	*1088*	*1063*	
n People Weighted[2]		*5015*	*4967*	*4952*	*4948*	*4939*	*4906*	*5040*	*5143*	*5181*	*5109*	*5117*	*5111*	

Household and eating out intakes combined. [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Table 5: Intake of Scottish Dietary Goal Nutrients by SIMD, 2010 to 2012 Combined - LCFS data (units/person/day)

	Scottish Dietary Goal	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII** 95% CI	RII*** 95%CI
Energy Density kcal/100g	125kcal/100g	179	174	172	174	168	***0.011***	-11.4	-0.07
		173, 184	168, 180	166, 178	168, 180	163, 173		-19.8, -3	-0.11, -0.02
% Food Energy - Fat	≤35%	39.0	38.7	39.3	39.0	39.3	*0.487*	0.5	0.01
		38.0, 40.0	37.7, 39.7	38.0, 40.6	38.2, 39.9	38.6, 40.1		-1, 2	-0.02, 0.05
% Food Energy - Saturated Fat	≤11%	14.9	14.9	15.5	15.2	15.5	***0.033***	0.7	0.05
		14.4, 15.4	14.5, 15.3	14.8, 16.2	14.7, 15.7	15.0, 16.0		0.1, 1.4	0, 0.09
% Food Energy - NMES	<11%	15.1	15.0	14.6	14.2	14.1	***0.031***	-1.4	-0.1
		14.2, 15.9	13.9, 16.2	13.6, 15.6	13.4, 15.1	13.3, 14.9		-2.7, -0.1	-0.18, -0.01
NSP	18g/day	11.1	11.3	12.9	13.0	12.9	***<0.001***	2.6	0.22
		10.3, 11.9	10.6, 12.0	11.9, 13.9	12.1, 13.9	12.1, 13.6		1.5, 3.8	0.12, 0.31
Food Energy - kcal		1885	1837	2057	2005	1934	0.183	126	0.06
		1762, 2007	1705, 1968	1932, 2182	1876, 2135	1818, 2050		-67, 319	-0.03, 0.16
Food Energy - MJ		7.9	7.6	8.6	8.3	8.1	0.192	0.5	0.06
		7.3, 8.4	7.1, 8.2	8.1, 9.1	7.8, 8.9	7.6, 8.5		-0.3, 1.3	-0.04, 0.16
n Households		*303*	*285*	*251*	*279*	*318*		*1436*	*1436*
n People		*667*	*588*	*561*	*650*	*715*		*3181*	*3181*
n People Weighted[1]		*3340*	*2819*	*2763*	*3031*	*3383*		*15336*	*15336*

Household and eating out intakes combined. *Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality. [1]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Figure 7: Mean (with 95% CI) energy density (food and milk) by year 2001 - 2012 compared to Scottish Dietary Goal (<35% food energy)

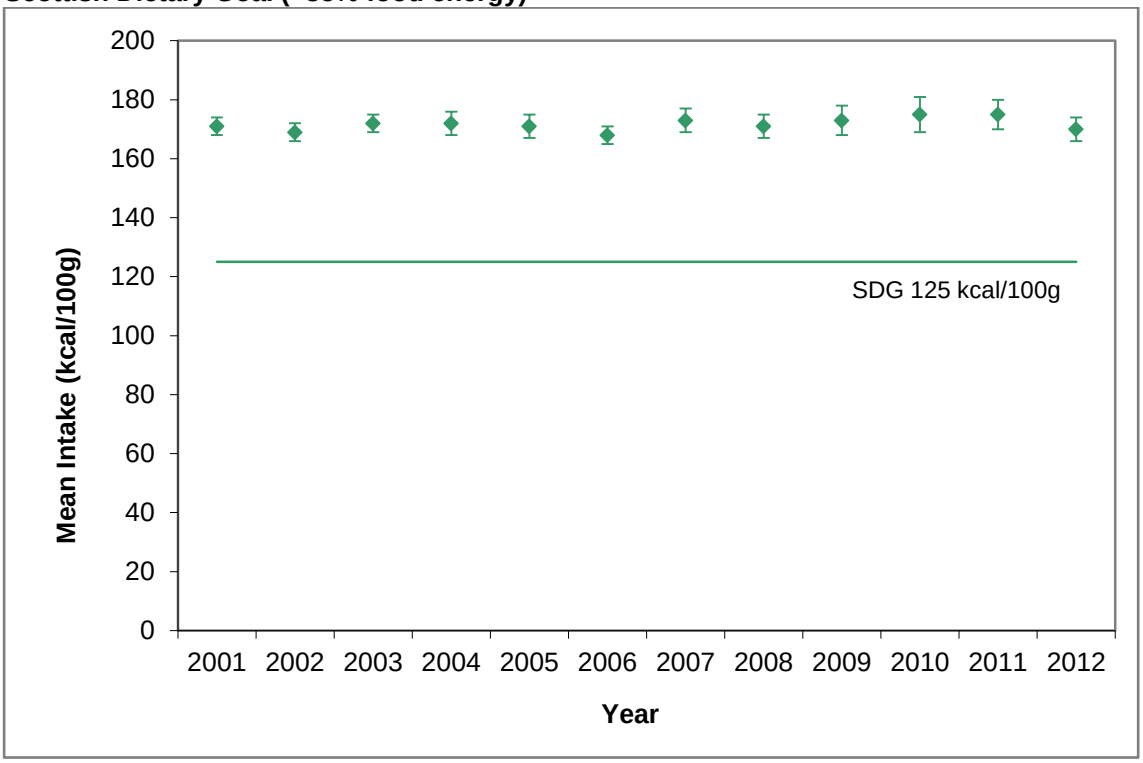


Figure 8: Mean (with 95% CI) energy density (food and milk) by SIMD quintile compared to Scottish Dietary Goal (<35% food energy)

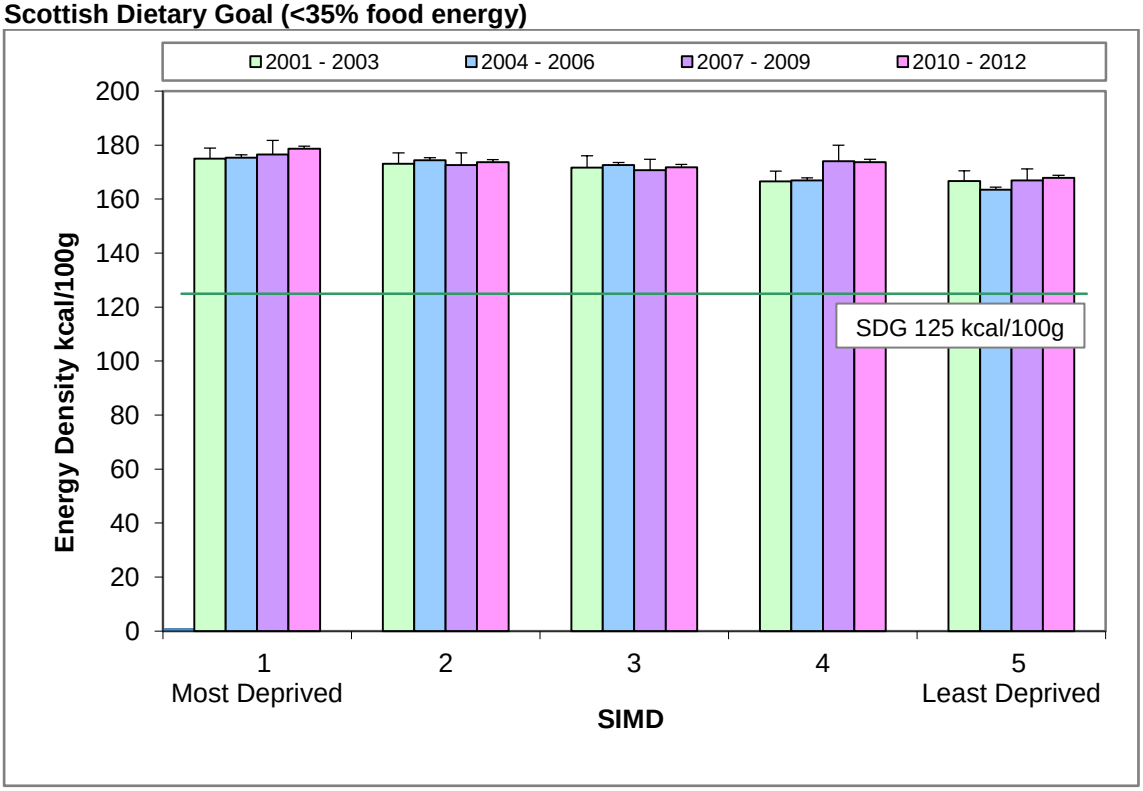


Figure 9: Mean (with 95% CI) fat intake by year 2001 - 2012 compared to Scottish Dietary Goal (<35% food energy)

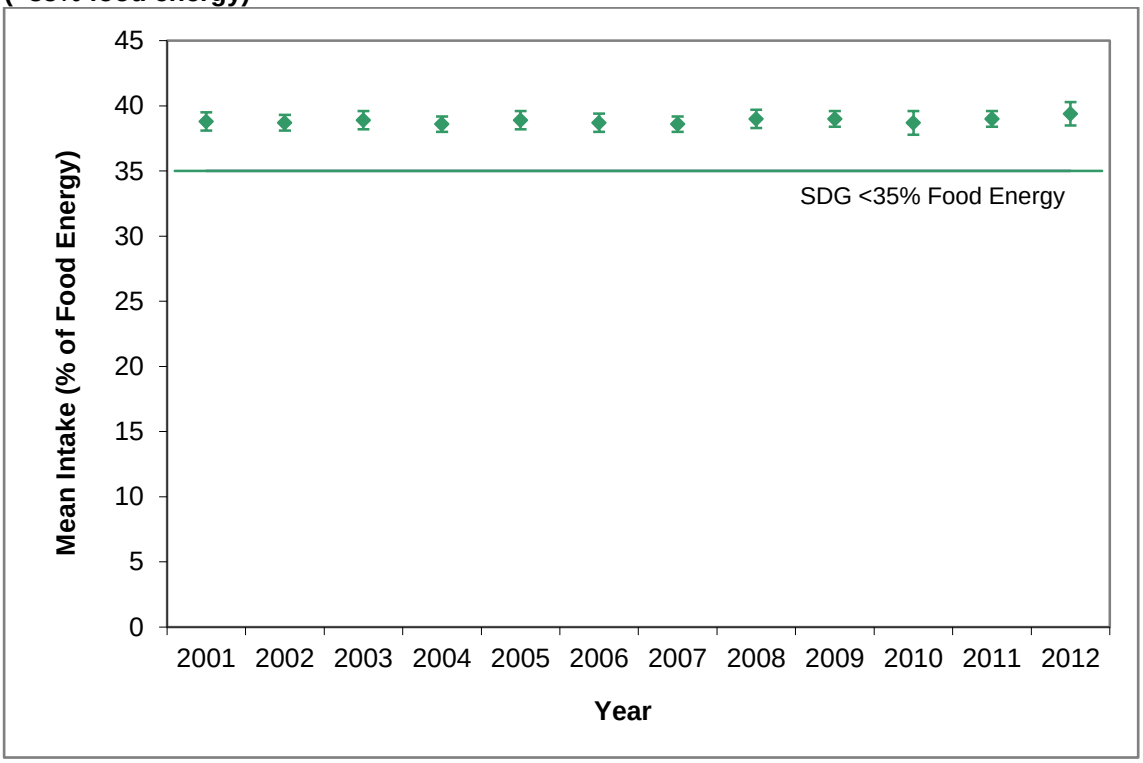


Figure 10: Mean (with 95% CI) fat intake by SIMD quintile compared to Scottish Dietary Goal (<35% food energy)

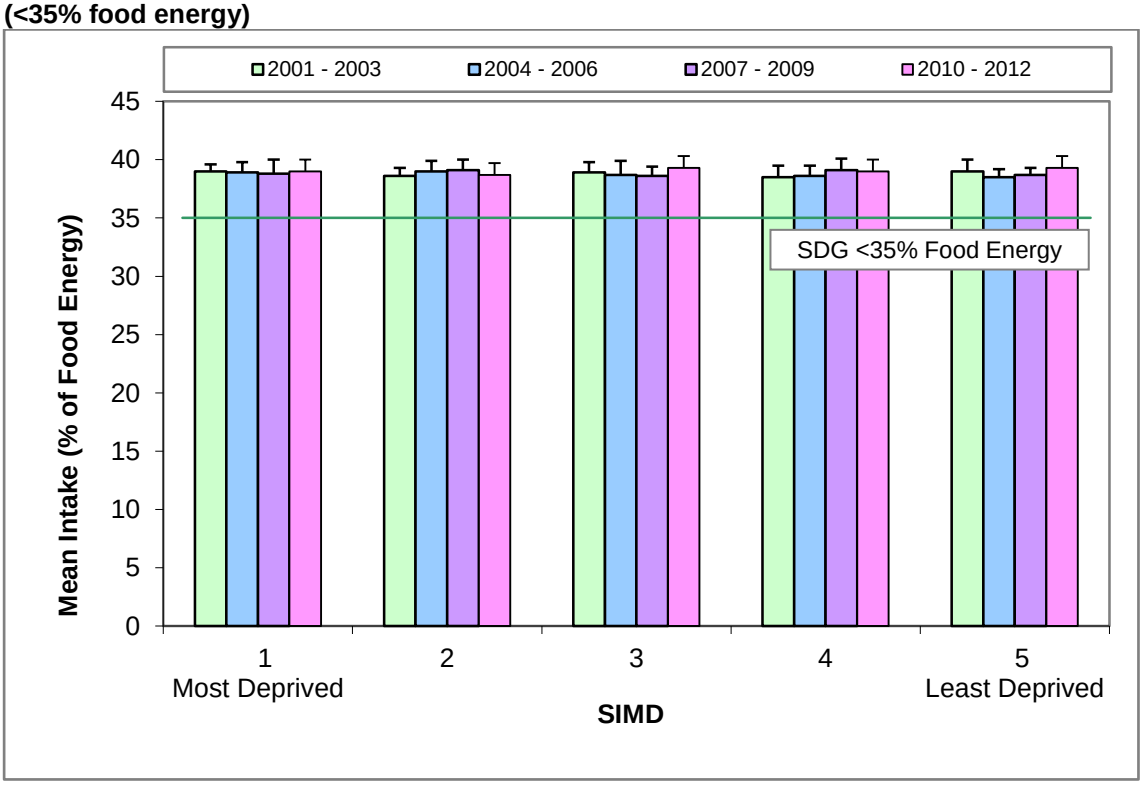


Figure 11: Mean (with 95% CI) saturated fat intake by year 2001 - 2012 compared to Scottish Dietary Goal (<11% food energy)

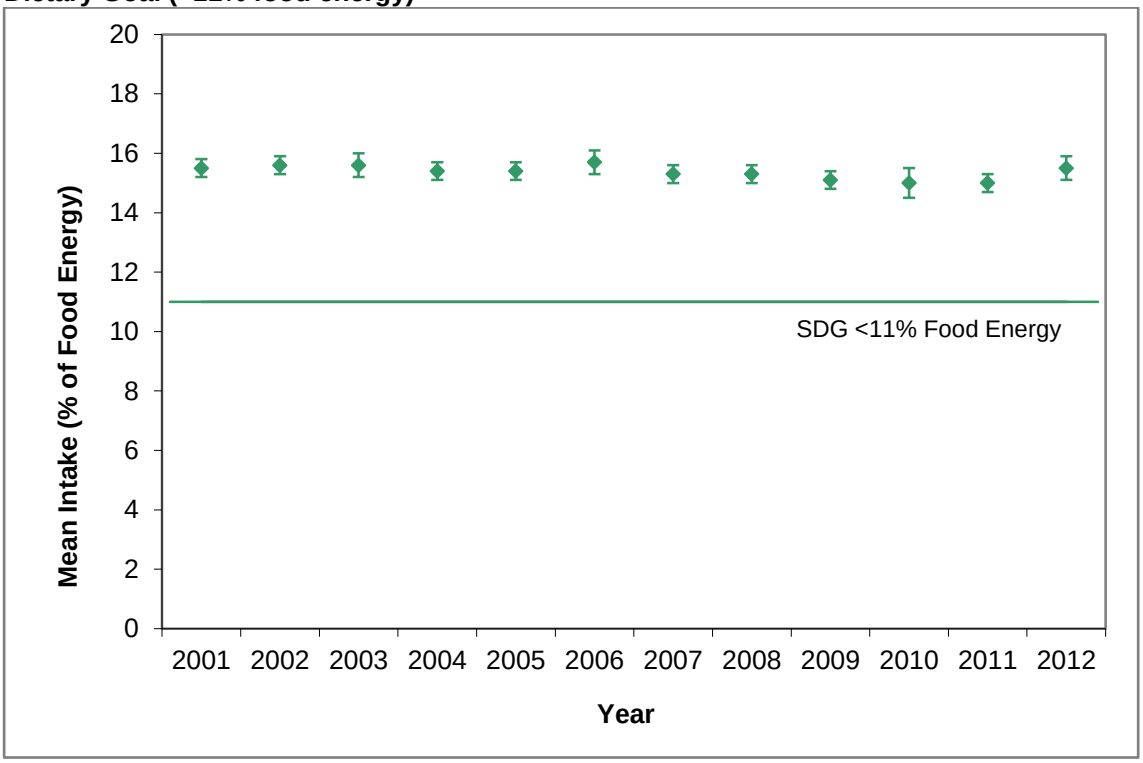


Figure 12: Mean (with 95% CI) saturated fat intake by SIMD quintile compared to Scottish Dietary Goal (<11% food energy)

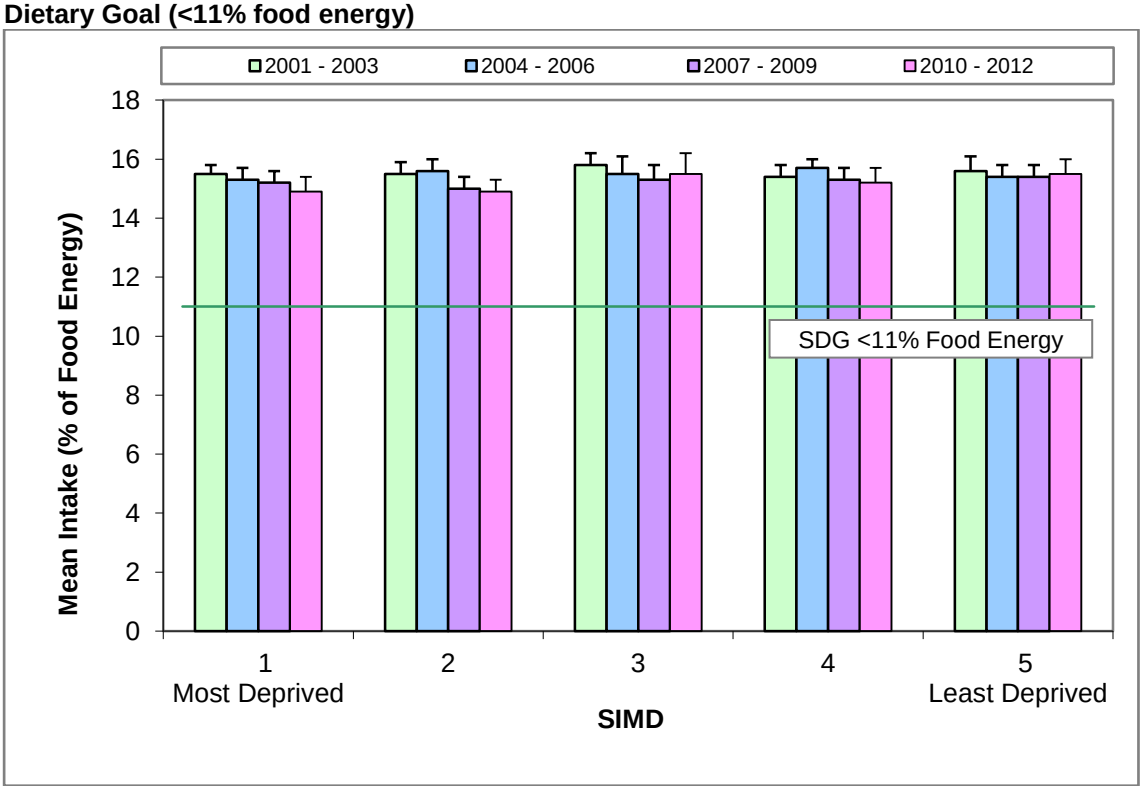


Figure 13: Mean (with 95% CI) NMES intake by year 2001 - 2012 compared to Scottish Dietary Goal (<11% food energy)

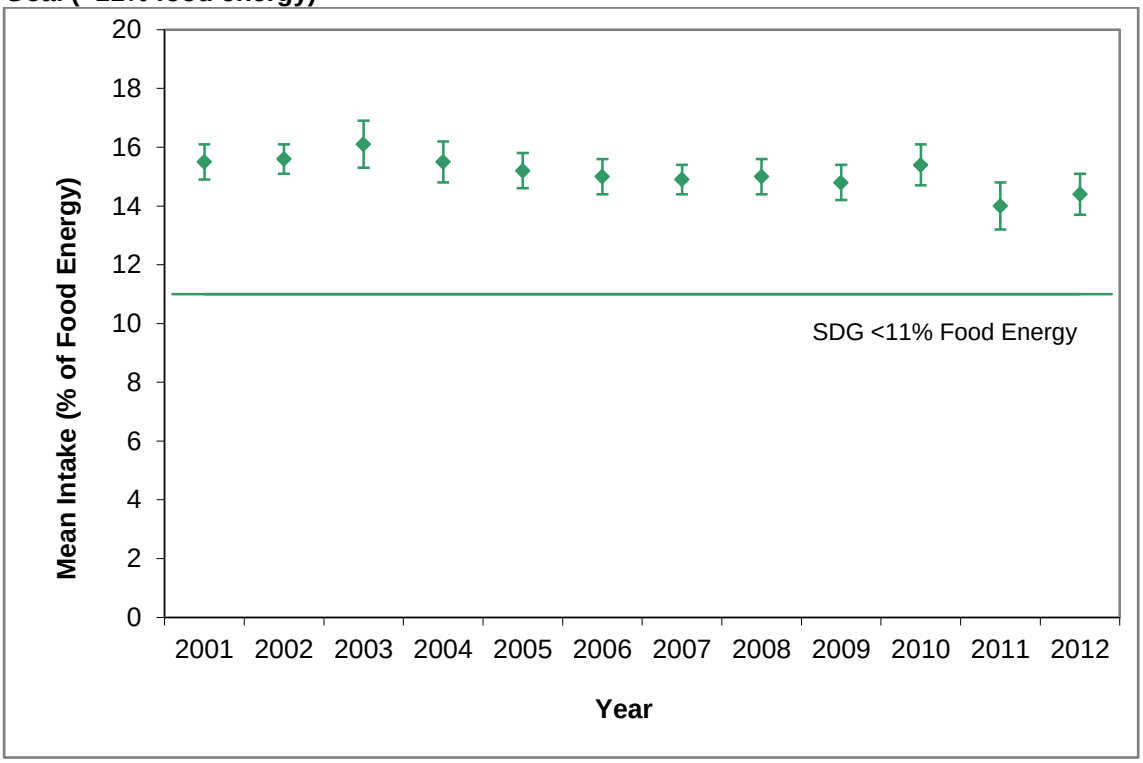


Figure 14: Mean (with 95% CI) NMES intake by SIMD quintile compared to Scottish Dietary Goal (<11% food energy)

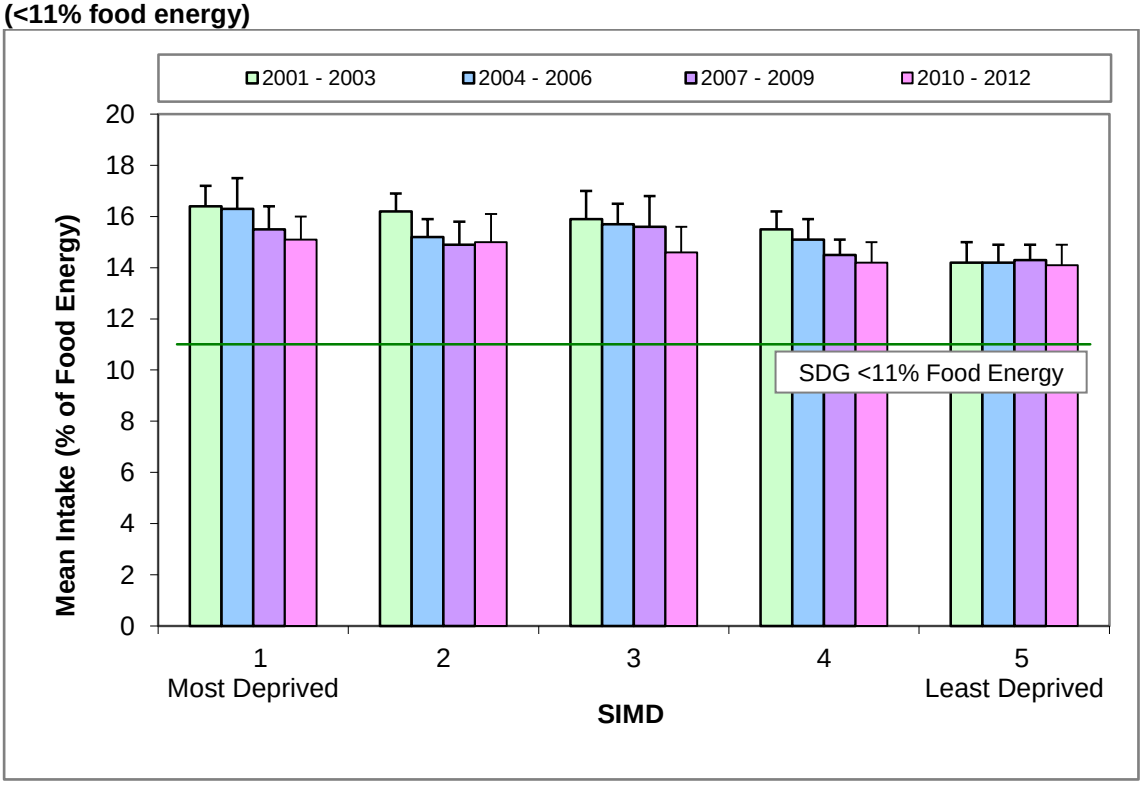


Figure 15: Mean (with 95% CI) NSP intake by year 2001 - 2012 compared to Scottish Dietary Goal (18 g/day)

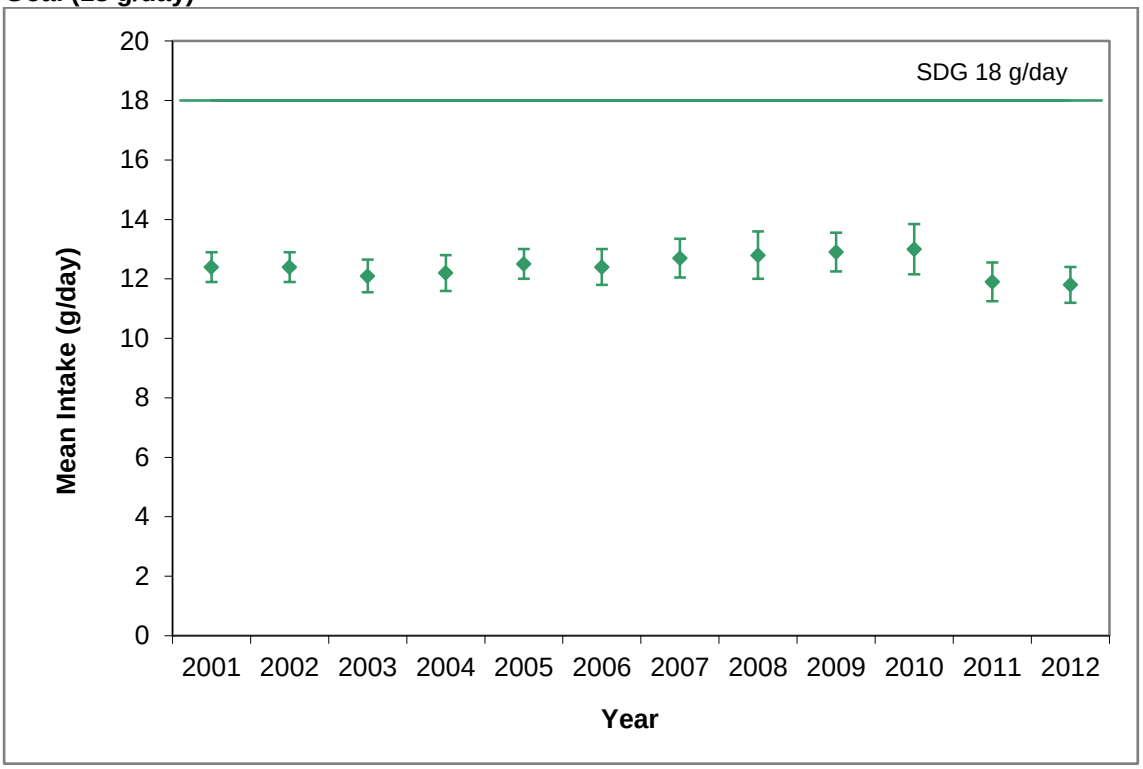
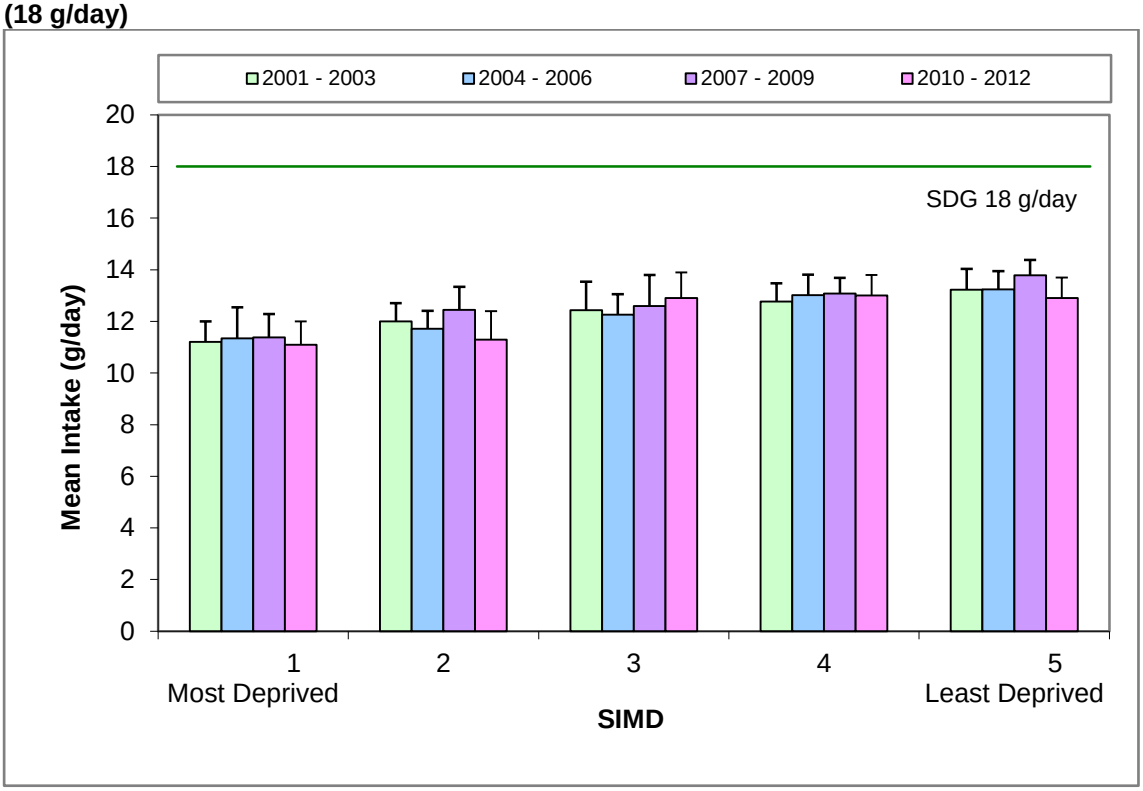


Figure 16: Mean (with 95% CI) NSP intake by SIMD quintile compared to Scottish Dietary Goal (18 g/day)



3.3 Consumption of Additional Foods and Drinks Indicative of Diet Quality

3.3.1 Food Consumption by Year

Total daily bread consumption gradually decreased over the period 2001 to 2012 (from 111g to 93.4g), such that the mean consumption in 2012 was significantly lower than that in 2001 (P-value of linear association <0.001), (Table 6). This was accounted for by a steady decrease in white bread. However daily intakes of brown/wholemeal bread have increased (P-value of linear association 0.005) from 18.2g in 2001 to 23.6g in 2008 and were 19.7g in 2012. In 2012, 21% of bread consumed was brown/wholemeal compared to 16% in 2001.

Total breakfast cereal consumption remained fairly constant from 2001 to 2006 then fluctuated in the period to 2012 with intakes in 2012 of 19.5g/day (Table 6). Daily intakes of high fibre breakfast cereals have significantly increased from 10.0g in 2001 to 13.8g in 2009 and were 10.9g in 2012 (P-value of linear association = 0.014).

Mean consumption of cakes, sweet biscuits and pastries have remained fairly constant with intakes in 2012 of 37g/day (Table 6). Similarly mean consumption of total confectionery has remained fairly constant with intakes of 21g in 2012. The trends in sugar containing soft drinks mirrored that of NMES (i.e. increased slightly from 2001 to 2003 but then fell again towards 2009, increased in 2010 and then dramatically decreased in 2011) (Table 6, Figure 17). The observation that sugar containing soft drink consumption mirrored the trend in NMES is important, as a key part of strategies to reduce obesity is reducing intake of sugar containing soft drinks.

Table 7 shows that bacon and ham intakes have remained constant over the period of 2001 to 2012, however other meat products have shown an overall significant decrease over time (P-value for linear association = 0.018). Total daily milk consumption has decreased from 250g in 2001 to 217g in 2012 (P-value of linear association <0.001). This has been caused by a decrease in whole milk from 91.6g/day to 45.4g/day (P-value of linear association <0.001). White fish consumption has ranged between 70.2g/week and 96.3g/week however the increase at 2007 appears to have declined with intakes in 2012 of 70.2g/week. There has been a significant decrease in fresh potato consumption between 2001 and 2012 (P-value of linear association <0.001) with intakes in 2012 of 46.5g/day compared with 65.8g/day in 2001. Daily processed potato consumption (e.g. chips) has decreased slightly over the period from 32.8g in 2001 to 26.8g in 2008 and was 32g in 2012 (P-value for linear association = 0.043), as has the consumption of savoury snacks, 14.6g in 2001 to 12.1g in 2012 (P-value for linear association = 0.002). Takeaway food consumption has remained fairly constant at around 20g/day.

3.3.2 Food Consumption by SIMD

Consumption of brown/wholemeal bread and breakfast cereals (all types and wholegrain/high fibre) were highest in the least deprived quintile (Quintile 5) (Table 8).

Sugar containing soft drink consumption was significantly higher in the most deprived quintile of SIMD (Quintile 1) with mean daily consumption 229g compared to 170g in the least deprived quintile (Quintile 5) (Table 8, Figure 18). However the reduction over time in soft drink consumption appears

to be greater in the more deprived quintiles (Figure 18). Conversely, consumption of cakes, sweet biscuits and pastries was highest in the least deprived quintile (Quintile 5), with intakes of 40.4g/day compared to 31g/day in the most deprived quintile (Quintile 1) (Table 8).
Table 9 shows that consumption of foods in the other red meat products group, whole milk and processed potatoes were significantly highest in the most deprived quintile of SIMD (Quintile 1); conversely consumption of semi-skimmed milk and white fish was highest in the least deprived quintile. Mean consumption of whole milk was more than two and a half times more in the most deprived compared to the least deprived quintile.

Results tables for 2001-2003, 2004-2006 and 2007-2009 from previous reports (Barton et al., 2010, Barton and Wrieden, 2012) are provided in Appendix 7 for comparison. Comparison over time shows that results from the earlier time periods 2001-2003, 2004-2006, 2007-2009 provided similar differences to those presented for 2010-2012 with statistically significant results being consistent over the 4 time periods with the exception of those for potatoes, total bread, sugar and preserves, cakes and pastries and total milk. Earlier surveys showed that consumption of potatoes, sugar and preserves and total milk were significantly lower in the least deprived for 2001-2003 but no significant differences were found in later time periods. Total bread consumption was highest in the most deprived for 2001-2003 and 2007-2009 but not for the other two time periods; consumption of cakes and pastries was only significant in 2007-2009, with greater consumption in the least deprived, and total red meat consumption was significantly higher in the most deprived quintile for the first two time periods.

Analysis by SII and RII confirm the above differences by SIMD in absolute and relative terms. Appendix 8 provides the results for the SII and RII analysis for food consumption over time with regards to deprivation showing that there has been no significant change in inequalities from 2001 to 2012 for the majority of foods / drinks and that absolute and relative inequalities in food/nutrient intakes have not changed appreciably between 2001 and 2012.
A significant difference was found over time for SII for sugar free and total soft drink consumption, however this is difficult to explain due to changes in consumption patterns over the four time periods. For 2001 to 2003, consumption of sugar free drinks was highest in the least deprived, for 2004 to 2006 consumption was highest in the most deprived and for 2007 to 2009 and 2010 to 2012 there was little difference. This suggests that the difference in sugar free soft drink consumption has disappeared. For total soft drink consumption, it would appear that the gradient between most deprived and least deprived is reducing.

Table 6: Consumption of Additional Foods and Drinks Indicative of Diet Quality (Table A) by Year, 2001 to 2012 - EFS / LCFS data (g/person/day)

Food	2001 Mean 95% CI	2002 Mean 95% CI	2003 Mean 95% CI	2004 Mean 95% CI	2005 Mean 95% CI	2006[1] Mean 95% CI	2007 Mean 95% CI	2008 Mean 95% CI	2009 Mean 95% CI	2010 Mean 95% CI	2011 Mean 95% CI	2012 Mean 95% CI	*P-value for Linear Association*
Total Bread	111	109	102	100	100	102	97.9	92.9	94.7	94.4	86.1	93.4	***<0.001***
	106, 117	104, 113	95.7, 109	95.1, 105	94.6, 106	96.1, 108	93.0, 103	89.0, 96.9	90.0, 100	89.4, 99.5	80.0, 92.2	87.4, 99.4	
Brown/Wholemeal Bread	18.2	18.9	17.0	22.4	22.2	23.6	23.5	23.6	21.4	23.0	22.6	19.7	***0.005***
	16.3, 20.1	16.5, 21.4	14.9, 19.0	19.9, 24.8	19.5, 24.9	20.9, 26.3	20.5, 26.4	20.8, 26.4	19.7, 23.2	19.9, 26.0	18.7, 26.4	17.9, 21.5	
Total Breakfast Cereal	19.6	19.6	19.2	20.8	19.3	19.3	22.3	21.6	23.2	22.0	21.8	19.5	*0.062*
	17.4, 21.8	17.2, 22.0	16.4, 21.9	18.5, 23.0	17.1, 21.5	17.1, 21.4	19.5, 25.2	18.5, 24.6	20.7, 25.8	19.3, 24.6	19.2, 24.3	16.9, 22.1	
High Fibre Breakfast Cereal	10.0	10.5	10.3	11.1	11.1	11.1	13.5	12.8	13.8	12.3	12.4	10.9	***0.014***
	8.4, 11.7	8.7, 12.2	8.5, 12.1	9.2, 13.0	9.6, 12.7	9.3, 12.9	11.6, 15.3	10.3, 15.4	11.9, 15.8	10.3, 14.3	10.2, 14.7	8.9, 13.0	
Cakes and Pastries	18.1	16.9	16.9	17.7	16.4	18.1	17.4	19.1	16.1	17.7	15.2	16.3	*0.182*
	16.0, 20.2	15.0, 18.7	14.9, 18.8	15.6, 19.7	15.1, 17.8	16.3, 20.0	15.3, 19.5	16.9, 21.2	14.6, 17.5	15.5, 19.8	13.6, 16.8	14.6, 18.0	
Sweet Biscuits	21.7	23.3	22.1	21.3	19.6	22.4	24.0	23.9	22.9	21.9	19.4	20.7	*0.332*
	20.0, 23.4	21.1, 25.5	20.0, 24.2	19.4, 23.3	17.5, 21.7	20.0, 24.8	21.3, 26.6	21.1, 26.8	20.6, 25.3	19.4, 24.5	17.5, 21.3	18.4, 23.0	
Cakes, Sweet Biscuits and Pastries	39.8	40.2	39.0	39.0	36.0	40.6	41.4	43.0	39.0	39.6	34.6	37.0	*0.166*
	36.9, 42.7	36.8, 43.6	35.5, 42.5	35.7, 42.3	33.3, 38.8	37.1, 44.0	37.3, 45.4	38.6, 47.4	35.7, 42.3	35.7, 43.5	31.9, 37.3	34.0, 39.9	
Sugar and Preserves	19.3	17.0	19.8	18.0	15.5	17.4	18.9	18.1	16.9	18.3	15.7	17.5	*0.306*
	16.8, 21.9	14.9, 19.2	16.4, 23.1	16.0, 20.0	13.4, 17.5	14.5, 20.3	15.7, 22.0	15.1, 21.1	13.7, 20.2	15.3, 21.4	12.8, 18.6	14.0, 20.9	
Chocolate Confectionery	13.5	14.9	15.8	14.6	13.7	13.8	15.1	15.5	15.2	14.3	13.4	14.3	*0.785*
	11.6, 15.5	13.1, 16.7	13.8, 17.8	12.5, 16.7	12.0, 15.4	12.0, 15.5	12.2, 18.1	13.2, 17.9	13.1, 17.3	11.8, 16.8	11.7, 15.2	12.2, 16.4	
Sugar Confectionery	7.6	7.9	7.9	7.1	6.8	6.6	6.8	6.5	7.0	7.1	6.7	7.1	*0.090*
	6.5, 8.7	6.6, 9.1	6.9, 8.8	6.2, 8.1	5.5, 8.0	5.4, 7.8	5.9, 7.6	5.0, 8.0	5.9, 8.2	6.1, 8.2	5.7, 7.7	6.0, 8.1	
Total Confectionery	21.2	22.8	23.7	21.8	20.5	20.3	21.9	22.0	22.2	21.4	20.1	21.4	*0.314*
	18.6, 23.7	20.3, 25.2	21.3, 26.2	19.4, 24.1	18.2, 22.8	17.9, 22.8	18.5, 25.3	18.8, 25.2	19.5, 24.8	18.2, 24.6	17.8, 22.5	19.1, 23.6	
Sugar Containing Soft Drinks	234	241	260	246	233	222	220	213	213	231	156	151	***<0.001***
	208, 260	215, 266	235, 284	219, 272	204, 263	196, 248	194, 245	185, 242	185, 241	203, 258	132, 180	130, 172	
Sugar Free Soft Drinks	98.2	108	106	85.0	84.9	112	86.3	100	78.3	120	98.2	137	*0.058*
	83.0, 113	89.2, 126	86.3, 126	72.4, 97.6	67.4, 102	91.3, 132	65.6, 107	81.0, 119	62.3, 94.3	91.9, 149	78.2, 118	110, 163	
Total Soft Drinks	332	348	366	331	318	334	306	313	291	351	254	288	***<0.001***
	305, 359	315, 382	337, 395	299, 362	280, 356	299, 369	269, 342	271, 355	259, 324	317, 386	221, 287	255, 320	
n Households	*619*	*585*	*546*	*590*	*566*	*577*	*500*	*494*	*543*	*464*	*495*	*477*	
n People	*1414*	*1342*	*1266*	*1329*	*1285*	*1365*	*1093*	*1058*	*1222*	*1030*	*1088*	*1063*	
n People Weighted[2]	*5015*	*4967*	*4952*	*4948*	*4939*	*4906*	*5040*	*5143*	*5181*	*5109*	*5117*	*5111*	

Household and eating out consumption combined. [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Table 7: Consumption of Additional Foods and Drinks Indicative of Diet Quality (Table B) by Year, 2001 to 2012 - EFS/ LCFS data (g/person/day)

Food	2001 Mean 95% CI	2002 Mean 95% CI	2003 Mean 95% CI	2004 Mean 95% CI	2005 Mean 95% CI	2006[1] Mean 95% CI	2007 Mean 95% CI	2008 Mean 95% CI	2009 Mean 95% CI	2010 Mean 95% CI	2011 Mean 95% CI	2012 Mean 95% CI	*P-value for Linear Association*
Bacon and Ham	12.4	11.7	12.4	11.4	11.8	11.9	12.0	11.9	12.7	12.0	13.3	12.5	*0.246*
	11.1, 13.7	10.5, 12.9	11.1, 13.8	10.4, 12.4	10.8, 12.8	10.6, 13.2	10.8, 13.2	10.5, 13.2	11.6, 13.9	10.9, 13.2	12.0, 14.7	10.7, 14.3	
Other Red Meat Products[2,3]	28.8	28.6	30.9	27.1	28.6	25.5	28.5	24.9	27.7	26.9	25.3	27.9	***0.018***
	26.1, 31.6	26.5, 30.7	28.9, 32.9	24.8, 29.5	26.2, 30.9	23.2, 27.7	26.4, 30.5	21.8, 27.9	25.4, 30.1	24.4, 29.5	23.1, 27.4	25.4, 30.5	
Butter	6.1	5.7	5.6	6.1	6.8	7.3	7.4	6.3	5.7	7.3	7.0	7.4	***0.024***
	5.2, 7.1	4.9, 6.6	4.3, 6.9	5.1, 7.0	5.6, 8.0	6.0, 8.5	6.2, 8.6	5.2, 7.4	4.8, 6.7	6.4, 8.2	5.4, 8.7	6.1, 8.7	
Whole Milk	91.6	85.2	89.7	68.1	59.2	71.4	59.2	52.9	59.5	44.9	45.1	45.4	***<0.001***
	75.8, 107	72.9, 97.5	74.1, 105	56.2, 79.9	47.1, 71.2	56.9, 85.8	48.1, 70.3	38.0, 67.8	46.0, 72.9	36.8, 53.1	31.0, 59.2	37.1, 53.8	
Semi-skimmed Milk	126	125	125	124	136	127	139	137	138	139	123	143	*0.062*
	111, 140	113, 138	112, 137	110, 138	122, 150	113, 141	125, 153	121, 154	120, 156	124, 153	104, 141	127, 159	
Skimmed Milk	14.8	12.5	9.2	13.4	14.1	14.4	13.8	18.9	17.8	13.9	19.2	12.3	*0.113*
	8.9, 20.8	8.6, 16.5	6.0, 12.5	8.6, 18.2	9.1, 19.1	10.6, 18.1	9.2, 18.5	13.9, 23.8	13.0, 22.6	8.3, 19.5	9.4, 29.0	7.9, 16.7	
Total Milk	250	249	245	227	225	233	234	226	232	218	205	217	***<0.001***
	235, 266	235, 264	227, 263	210, 243	211, 239	217, 248	220, 248	207, 245	214, 251	201, 235	185, 226	200, 233	
White Fish	94.3	90.8	90.3	84.8	84.5	94.7	96.3	91.0	91.2	91.0	82.4	70.2	***0.035***
	84.8, 104	81.6, 100	80, 101	75.7, 93.9	73.4, 95.6	84.4, 105	82.7, 110	78.8, 103	81.5, 110	75.9, 106	64.2, 101	61.5, 78.9	
Fresh Potatoes	65.8	58.1	56.1	53.7	57.3	59.8	53.4	54.0	50.1	49.4	42.7	46.5	***<0.001***
	57.7, 73.9	51.9, 64.3	50.5, 61.6	47.8, 59.7	52.1, 62.5	52.0, 67.5	47.1, 59.8	46.6, 61.4	44.2, 56.0	42.7, 56.1	37.0, 48.3	41.5, 51.6	
Processed Potatoes	32.8	32.8	31.9	28.0	27.5	28.1	28.7	26.8	29.1	28.6	27.1	32.0	***0.043***
	29.7, 36.0	29.8, 35.7	28.9, 34.9	25.5, 30.5	24.2, 30.8	25.3, 30.8	25.5, 32.0	23.3, 30.3	26.1, 32.0	24.9, 32.2	24.4, 29.8	27.5, 36.6	
Savoury Snacks	14.6	14.4	14.6	12.0	12.5	12.4	13.5	12.3	13.5	13.5	11.5	12.1	***0.002***
	13.3, 16.0	13.1, 15.7	13.5, 15.8	10.8, 13.2	11.1, 13.9	11.3, 13.5	11.9, 15.1	10.6, 14.0	12.3, 14.7	12.1, 15.0	10.0, 12.9	10.9, 13.3	
Takeaway Foods	19.9	23.9	21.0	19.9	20.5	21.0	21.0	18.1	21.3	18.5	17.4	22.3	*0.126*
	17.2, 22.6	21.0, 26.8	18.4, 23.7	16.8, 22.9	17.2, 23.7	18.1, 23.9	17.7, 24.4	15.5, 20.6	17.9, 24.6	15.1, 22.0	15.3, 19.5	18.5, 26.0	
n Households	*619*	*585*	*546*	*590*	*566*	*577*	*500*	*494*	*543*	*464*	*495*	*477*	
n People	*1414*	*1342*	*1266*	*1329*	*1285*	*1365*	*1093*	*1058*	*1222*	*1030*	*1088*	*1063*	
n People Weighted[4]	*5015*	*4967*	*4952*	*4948*	*4939*	*4906*	*5040*	*5143*	*5181*	*5109*	*5117*	*5111*	

Household and eating out consumption combined. [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Meat portion only – see appendices 1 & 3 for methodology; [3]Other Red Meat products includes the meat portion of sausages, meat pies, corned beef, burgers and pate and is a component of total red meat; [4]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Table 8: Consumption of Additional Foods and Drinks Indicative of Diet Quality (Table A) by SIMD, 2010 to 2012 Combined - LCFS data (g/person/day)

Food	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII** 95% CI	RII*** 95%CI
Total Bread	90.7 84.5, 97.0	89.1 83.5, 94.8	100 87.9, 113	90.9 82.9, 99	86.7 78.7, 94.6	*0.613*	-3.6 -17.8, 10.5	-0.04 -0.19, 0.11
Brown/Wholemeal Bread	17.2 13.7, 20.8	20.6 17.9, 23.4	23.1 19.3, 26.9	22.8 19.4, 26.2	25.1 21.6, 28.5	***0.004***	9.3 3.1, 15.4	0.43 0.14, 0.71
Total Breakfast Cereal	15.9 13.0, 18.8	19.7 16.8, 22.7	22.3 18.8, 25.9	23.2 18.9, 27.5	24.4 20.8, 28.1	***<0.001***	10.7 5.0, 16.3	0.51 0.24, 0.77
High Fibre Breakfast Cereal	7.4 5.9, 8.8	11.4 9.3, 13.5	12.6 9.8, 15.5	13.5 10.0, 17.0	14.8 12.4, 17.1	***<0.001***	8.8 5.5, 12.2	0.74 0.46, 1.02
Cakes and Pastries	13.1 10.9, 15.3	14.9 12.5, 17.3	18.0 15.1, 21.0	17.3 14.9, 19.7	18.7 16.6, 20.9	***<0.001***	7.1 3.6, 10.5	0.43 0.22, 0.64
Sweet Biscuits	17.9 15.6, 20.2	19.5 15.9, 23.2	20.8 18.2, 23.4	23.5 21.2, 25.9	21.7 18.6, 24.8	***0.005***	5.8 1.9, 9.8	0.28 0.09, 0.47
Cakes, Sweet Biscuits and Pastries	31.0 27.2, 34.8	34.4 29.4, 39.5	38.8 34.4, 43.2	40.8 36.7, 44.9	40.4 36.5, 44.3	***<0.001***	12.9 7.0, 18.8	0.35 0.19, 0.51
Sugar and Preserves	16.6 13.7, 19.5	19.0 14.5, 23.4	19.4 14.4, 24.5	16.0 11.3, 20.6	15.4 12.7, 18.2	*0.302*	-2.6 -7.7, 2.5	-0.15 -0.45, 0.14
Chocolate Confectionery	12.5 10.6, 14.5	14.7 12.0, 17.5	16.2 12.8, 19.5	13.8 11.4, 16.2	13.3 10.3, 16.2	*0.860*	0.4 -3.6, 4.4	0.03 -0.26, 0.31
Sugar Confectionery	7.6 6.2, 9.0	6.8 5.4, 8.3	7.1 5.6, 8.5	7.4 5.9, 8.9	6.0 4.9, 7.2	*0.229*	-1.4 -3.7, 0.9	-0.20 -0.53, 0.12
Total Confectionery	20.1 17.5, 22.6	21.6 18.3, 24.8	23.2 19.5, 27.0	21.1 17.9, 24.3	19.3 15.7, 22.9	*0.683*	-1.0 -6.1, 4.0	-0.05 -0.29, 0.19
Sugar Containing Soft Drinks	229 198, 261	159 134, 183	181 151, 212	151 129, 173	170 138, 203	***0.006***	-66.3 -113, -19.8	-0.37 -0.63, -0.11
Sugar Free Soft Drinks	97.6 69.2, 126	118 85.2, 150	133 105, 161	143 105, 181	106 81.0, 130	*0.343*	19.7 -23.0, 62.5	0.17 -0.19, 0.53
Total Soft Drinks	327 281, 373	276 241, 312	314 279, 349	294 249, 339	276 236, 316	*0.095*	-46.5 -101, 8.1	-0.16 -0.34, 0.03
n Households	*303*	*285*	*251*	*279*	*318*		*1436*	*1436*
n People	*667*	*588*	*561*	*650*	*715*		*3181*	*3181*
n People Weighted[1]	*3340*	*2819*	*2763*	*3031*	*3383*		*15336*	*15336*

Household and eating out intakes combined. *Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality. [1]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Table 9: Consumption of Additional Foods and Drinks Indicative of Diet Quality (Table B) by SIMD, 2010 to 2012 Combined - LCFS data (g/person/day)

Food	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII** 95% CI	RII*** 95%CI
Bacon and Ham	11.7 9.8, 13.7	11.9 10.4, 13.4	14.0 11.6, 16.4	13.2 11.6, 14.8	12.4 10.7, 14.1	*0.358*	1.3 -1.6, 4.3	0.11 -0.13, 0.34
Other Red Meat Products[1,2]	31.9 29.1, 34.8	26.0 23.2, 28.8	27.7 25.1, 30.4	26.2 22.4, 30.0	21.8 18.9, 24.7	***<0.001***	-10.8 -15.4, -6.2	-0.40 -0.58, -0.23
Butter	6.0 4.8, 7.3	6.9 5.2, 8.7	7.7 6.0, 9.3	7.8 6.0, 9.5	7.8 6.2, 9.5	*0.103*	2.3 -0.5, 5.0	0.32 -0.07, 0.70
Whole Milk	74.2 51.3, 97.2	39.4 27.9, 50.8	45.5 32.2, 58.9	37.7 28.3, 47.2	27.5 18.9, 36.1	***0.001***	-50.7 -78.4, -23.0	-1.12 -1.74, -0.51
Semi-skimmed Milk	107 85.5, 129	140 121, 159	153 128, 178	137 118, 156	140 123, 158	***0.041***	33.7 1.6, 65.9	0.25 0.01, 0.49
Skimmed Milk	10.8 5.1, 16.5	11.7 6.3, 17.1	28.1 14.2, 42.0	10.8 5.4, 16.2	15.6 9.8, 21.4	*0.365*	4.6 -5.4, 14.6	0.30 -0.36, 0.96
Total Milk	214 195, 233	205 181, 229	245 219, 270	207 183, 231	200 182, 219	*0.415*	-14.2 -48.8, 20.4	-0.07 -0.23, 0.10
White Fish	69.3 51.4, 87.2	69.5 52.3, 86.7	83.8 66.6, 101	81.7 65.4, 97.9	100 86.4, 114	***0.014***	38.1 8.2, 68.0	0.47 0.10, 0.84
Fresh Potatoes	46.3 36.4, 56.2	45.6 38.5, 52.7	45.6 38.6, 52.7	54.4 47.1, 61.8	39.7 34.2, 45.2	*0.649*	-3.1 -15.4, 9.3	-0.07 -0.33, 0.20
Processed Potatoes	34.7 29.3, 40.0	30.3 26.1, 34.4	30.5 26.3, 34.7	27.5 23.5, 31.6	23.5 20.6, 26.3	***0.001***	-13.2 -20.3, -6.0	-0.45 -0.69, -0.21
Savoury Snacks	13.1 11.1, 15.1	12.0 10.3, 13.8	12.2 10.6, 13.9	13.2 11.6, 14.8	11.3 9.5, 13.1	*0.325*	-1.4 -4.2, 1.4	-0.12 -0.34, 0.11
Takeaway Foods	20.3 15.5, 25.0	20.7 16.2, 25.1	21.8 17.4, 26.2	17.0 12.3, 21.7	17.6 14.5, 20.7	*0.212*	-4.5 -11.7, 2.8	-0.23 -0.61, 0.14
n Households	*303*	*285*	*251*	*279*	*318*		*1436*	*1436*
n People	*667*	*588*	*561*	*650*	*715*		*3181*	*3181*
n People Weighted[3]	*3340*	*2819*	*2763*	*3031*	*3383*		*15336*	*15336*

Household and eating out intakes combined. *Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality. [1]Meat portion only – see appendices 1 & 3 for methodology; [2]Other Red Meat products includes the meat portion of sausages, meat pies, corned beef, burgers and pate and is a component of total red meat; [3]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Figure 17: Mean (with 95% CI) sugar containing soft drink consumption by year 2001 – 2012

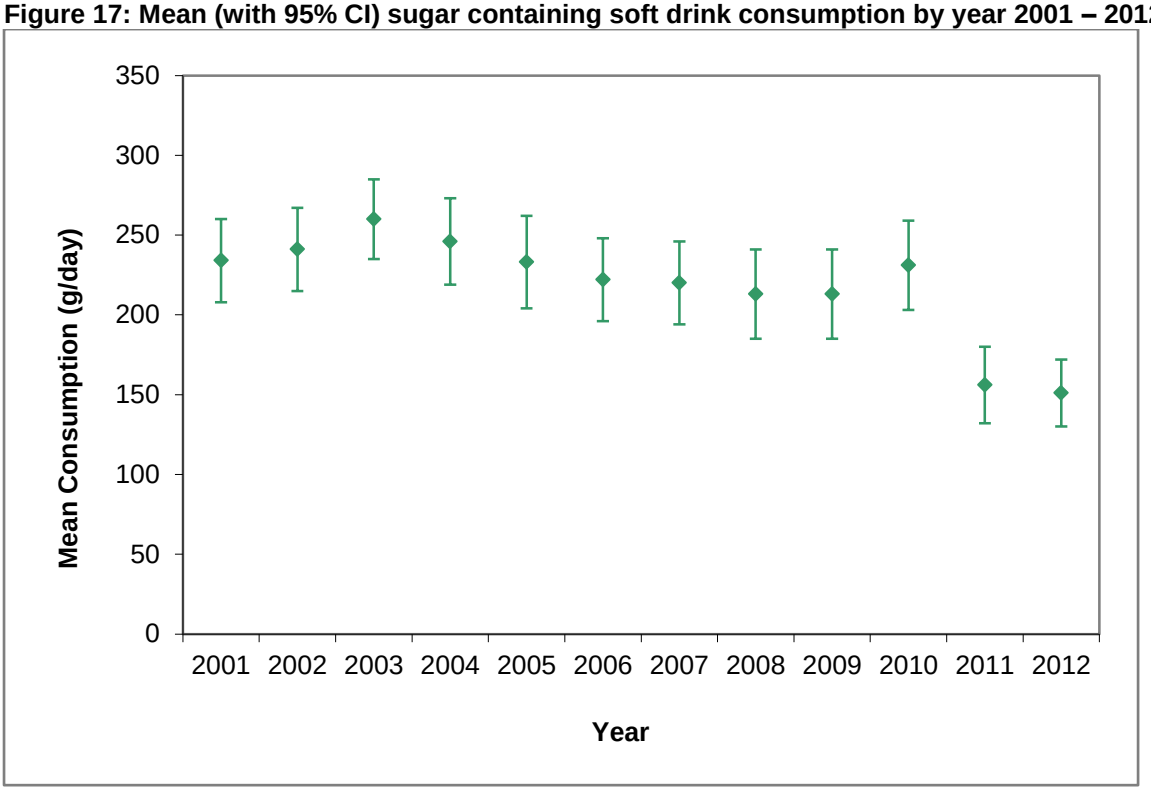
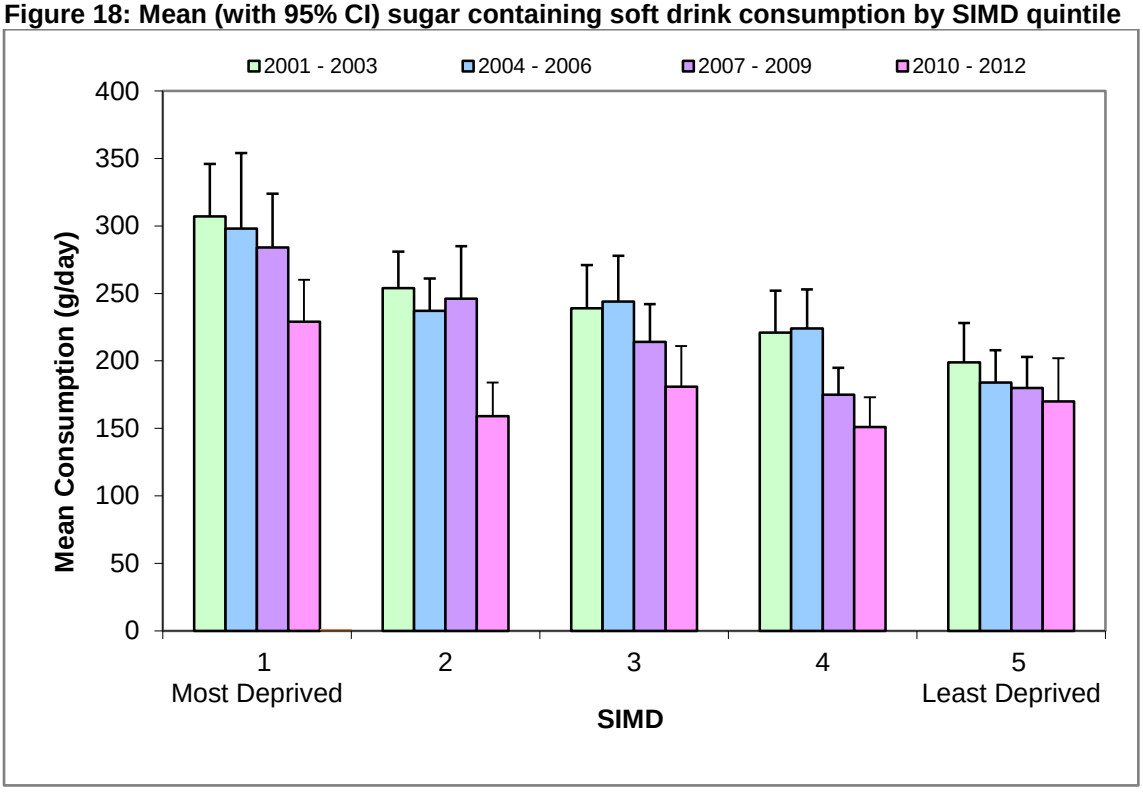


Figure 18: Mean (with 95% CI) sugar containing soft drink consumption by SIMD quintile



4. Discussion

Food consumption and nutrient intake for Scotland calculated in previous reports (Barton et al., 2010, Wrieden and Barton, 2011, Barton and Wrieden, 2012) were updated by the addition of the years 2010, 2011 and 2012 to give trend data from 2001 through to 2012; this has been related to the SDGs. A summary of the results for the SDGs measured here are presented in Table 10. These have been calculated using a standardised methodology developed by Barton *et al*., (Barton et al., 2010) using the household and eating out data from the LCFS, currently the only method of monitoring the complete diet over time in Scotland. Although there have been fluctuations over the 12 years little change was found in intakes of foods and nutrients between 2001 and 2012.

Table 10: Food/nutrient changes in relation to the Scottish Dietary Goals from 2001 to 2012 (mean per person per day except for oil rich fish)

Food / Nutrient	Scottish Dietary Goal	2001	2009	2012	Change Between 2001 and 2009[1]	Change Between 2001 and 2012[1]	Highest Consumption by SIMD[2]
Energy density	Average energy density of the diet to be lowered to 125 kcal/100g	171 kcal/ 100g	173 kcal/ 100g	170 kcal/ 100g	No Change	No Change	Most Deprived
Fruit and Vegetables	More than 400g	259g	279g	269g	↑	No Change	Least Deprived
Oil rich fish	Increase to one portion per person (140g) per week	26.7g	28.1g	27.5g	No Change	No Change	Least Deprived
Red Meat	Average intake of red and processed meat to be pegged at around 70g	64.6g	61.1g	61.5g	↓	No Change	No Difference
Fat	≤35% food energy	38.8%	39.0%	39.4%	No Change	No Change	No Difference
Saturated Fat	≤11% of food energy	15.5%	15.1%	15.5%	↓	↓[3]	Least Deprived
Sugar	NMES[4] to reduce to less than 11% of food energy in children and adults	15.5%	14.8%	14.4%	↓	↓	Most Deprived
Fibre	Increase in average consumption of fibre[5] to 18g	12.4g	12.9	11.8g	No Change	No Change	Least Deprived

[1]Based on P-value for Linear Association; [2]SIMD = Scottish Index of Multiple Deprivation, for 2009-2012; [3]Although the results for 2001 and 2012 were the same, there was a significant linear association for the 2001 to 2012 time period; [4]Non-milk extrinsic sugars - sugars, excluding those in milk and milk products that are not incorporated into the cellular structure of foods, such as fruit and vegetables e.g. sugar released from fruit when it is blended or juiced, table sugar, honey and added sugar in cakes, biscuit, sweets, breakfast cereals and soft drinks; [5]Non starch polysaccharide (NSP) as measured by Englyst method.

Results from the LCFS suggest lack of progress towards the SDGs. The small statistically significant increase in mean consumption of fruit and vegetables found in the 9 year period from 2001 to 2009 has now stalled with consumption in 2012 being lower than that seen in the period 2007-2010. It is possible that this increase was not maintained because of the recession. Mean fruit and vegetable consumption remains around 1.5 portions below the population target of 5 portions per day. Little or no change has been found in the trends of consumption of the food based SDGs over the period 2001-2012. Intakes of saturated fat as a percentage of food energy in 2012 were the same as those in 2001, however a significant difference was found when observing the trend between 2001 and 2012. Intakes of saturated fat were lower in the most deprived compared to the least deprived but remained above the SDG across all deprivation quintiles. A significant decrease in the percentage of energy from NMES was observed, this was in line with a significant reduction in sugar containing soft

drink consumption. However, intakes of NMES across all the deprivation quintiles were approximately 3 times the draft guideline recently proposed by the SACN (Scientific Advisory Committee on Nutrition (SACN), 2014). This was that free sugars (similar to NMES but with the exclusion of sugars in cooked and dried fruit) should constitute no more than 5% of energy.

Further investigation has been carried out on the contribution of different foods to fat and saturated fat in order to determine why the clear differences in the intake of some foods by deprivation do not necessarily translate into differences in macronutrient intakes. For example, consumption of whole milk and processed meat is higher in the most deprived groups compared to the least deprived groups, but not total fat and saturated fat intake. In the period 2010-2012, for the first time since this monitoring work began, cakes, sweet biscuits and pastries were found to be significantly higher in the least deprived compared to the most deprived quintile. This may explain why, in part, the percentage of saturated fat was found to be slightly, but significantly higher in the least deprived. In addition, cheese and butter contribute significantly more to fat and saturated fat in least deprived compared to most deprived (for more detail see the accompanying report (Barton and Wrieden, 2015).

Results from the Scottish sample of the 2008/09-2011/12 NDNS have recently been published (Bates et al., 2014). Despite differences in the methods used to collect this data, figures relevant to the food based SDGs are comparable given the proportion of the different age groups in the population - see summary table of key measures from both surveys related to the SDGs.

Table 11: Comparison of mean food/nutrient intakes in relation to the Scottish Dietary Goals between LCFS 2012 and NDNS report for Scotland 2008-2012 (mean per person per day except for oil rich fish)

Food / Nutrient	Scottish Dietary Goal (SDG)	LCFS 2012		NDNS report for Scotland 2008-2012					
		Population	SDG	1.5-3	4-10	11-18	19-64	65+	SDG
Fruit and Vegetables	More than 400g	269g	Goal not met	188g	186g	164g	254g	307g	Goal not met
Oil rich fish	Increase to one portion per person (140g) per week	27.5g	Goal not met	7g	14g	14g	42g	63g	Goal not met
Red Meat	Average intake of red and processed meat to be pegged at around 70g	61.5g	Goal met	31g	48g	59g	72g	63g	Goal not met for adults 19-64 years
Fat	≤35% food energy	39.4%	Goal not met	34.4%	33.8%	34.0%	35.0%	35.2%	Goal met
Saturated Fat	≤11% of food energy	15.5%	Goal not met	14.9%	13.4%	12.8%	12.9%	13.9%	Goal not met
Sugar	NMES to reduce to less than 11% of food energy in children and adults	14.4%	Goal not met	12.0%	14.8%	15.4%	12.0%	11.5%	Goal not met
Fibre	Increase in average consumption of fibre to 18g	11.8g	Goal not met	8.3g	10.5g	11.5g	13.0g	13.0g	Goal not met

The most recent NDNS results for Scotland suggest that the adult population are meeting the Dietary Reference Value for fat of no more than 35% of food energy (Bates et al., 2014). These figures differ from the 38-39% of food energy estimated for 2009-2012 from the LCFS data for both UK and Scotland alone (Department for Environment Food & Rural Affairs (Defra), 2013a). Three possible reasons for these differences that highlight the difficulties in deciding whether the Scottish population is meeting the target for fat consumption are: 1. The results from the LCFS include individuals of all ages. Whilst Scottish estimates from the NDNS for children ages 4-18 for 2008/09-2011/12 were similar to those of adults at 33.9% and 34.1% for boys and girls respectively (Bates et al., 2014b) they do not include higher intakes of whole milk (and therefore higher fat intakes) in pre-school children which the LCFS does. 2. LCFS participants may purchase quantities of fats and oils that are to be consumed over a longer period (than the 2 week survey period), which it is assumed will be balanced by those who do not purchase these items during the period due to having them in storage. However, fats and oils used for cooking (particularly frying) are also not likely to be fully consumed, and are often disposed down domestic drains. It is therefore difficult for waste studies such as those by WRAP (WRAP, 2014; Waste and Resource Action Programme Survey (WRAP), 2008) to accurately estimate such waste. The 10% used in the current study (in line with previous work (Wrieden et al., 2006) for foods where no WRAP data was available) is likely to be an underestimate (causing higher than actual estimated intakes) and requires further investigation. 3. There is some evidence that people often under-report foods high in fat and/or sugar (Goris et al., 2000; Poppitt et al., 1998). The recent report by the UK Scientific Advisory Committee on Nutrition (2011) highlights that the NDNS has reported energy intakes to be consistently below the estimated average requirement (Department of Health, 1991) at a time when overweight and obesity in the UK is rising, and suggest that under-reporting may explain this discrepancy. The UK NDNS 2008/09-2011/12 (Bates et al., 2014a) report indicates that reported energy intake in 16 to 64 year olds was on average 34% lower than total energy expenditure measured using the doubly labelled water technique. For children aged 4 to 10 years it was reported as being 12% lower, for children aged 11 to 15 years 26% lower, and for adults aged 65 years 29% lower. Data was not available separately for Scotland due to small numbers of participants in the doubly labelled water population for Scotland (Bates et al., 2014b). It is therefore likely that under-reporting is part of the reason for the lower fat intakes reported in the NDNS.

Similar food consumption patterns were found when comparing the two sets of data (LCFS and NDNS) in relation to SIMD with higher intakes of fruit and vegetables and oil rich fish in the least deprived quintiles and little difference in total red meat consumption. Results in relation to fat intake by SIMD showed a similar trend in both surveys with no difference. However results from the LCFS found that the most deprived had lower saturated fat intakes than the least deprived with the NDNS finding no significant difference. However the percentage of energy from NMES was lower and fibre (in terms of g of NSP) was higher in the least deprived quintiles in both the NDNS (except for NMES in children) and the LCFS.

Despite some similarities being found in food consumption and nutrient intake between the two surveys, it must be appreciated that that the LCFS results are based on purchase data and are expressed per capita i.e. are an average of all ages so comparison of the results with other studies

should be carried out with caution. In addition the figures for waste used to adjust the purchase data are from a UK WRAP survey of 2008 (Waste and Resource Action Programme Survey (WRAP), 2008) and do not account for reductions in waste over recent years (WRAP, 2014). WRAP waste figures for Scotland were published in 2009 (WRAP Scotland, 2009), but these could not be used in the current analysis as data was not available as a percentage of individual foods/food groups and therefore no mapping to Defra food codes could be carried out using this data. Nevertheless, the fact that the LCFS provides a continuous survey of a representative sample of households in Scotland allows both comparison to be made over time and the ability to consider any inconsistencies in the data, enabling a clearer assessment to be made of any dietary change.

Any changes in nutrient intake due to recent product re-formulation are unlikely to have been found over the current three years being studied (2010-2012) as work with Food Standards Scotland and the food industry is ongoing, and this will be monitored in future years. The food composition data used for this analysis are updated on a rolling basis, however some of the market share data are out-dated, and require to be updated. Work is on-going to update these market shares using data provided by Kantar Worldpanel (a commercial market research company) (Department for Environment Food & Rural Affairs (Defra), 2010). Data for 2010 onwards have been obtained by Defra from the Department of Health and Public Health England (due to the responsibility for nutrition passing from the FSA to the Department of Health) and work continues to update nutrient compositions on a rolling basis (Department for Environment Food & Rural Affairs (Defra), 2013b).

Conclusion

In summary, there was little progress towards meeting the SDGs over the period 2001 to 2012, this was apparent even within the lowest deprivation quintiles. Despite evidence of progress towards the SDG for fruit and vegetables up to 2010, by 2012 consumption had dropped and this trend was no longer evident.

A slight but significant decreasing trend in the percentage of energy from NMES and saturated fat was apparent. It was of particular concern that foods targeted for increased consumption were significantly lower in the most deprived groups of the population. However, no evidence was found to suggest that the gap between the most and least deprived is increasing with the same very small improvements being found across all quintiles of Scottish Index of Multiple Deprivation (SIMD). This work continues to be of great importance for monitoring the evidence based dietary goals, and informing policy on obesity, diet and social inequalities.

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6. APPENDICES

Appendix 1: Further Detail on Methodology

The Living Costs and Food Survey / Expenditure and Food Survey

The Living Costs and Food Survey (LCFS) (before 2008 known as the Expenditure and Food Survey (EFS)) is a continuous survey of households in the UK commissioned jointly by the Office for National Statistics (ONS) and the Department for Environment and Rural Affairs (Defra). The LCFS is an annual household budget survey designed to collect information about household food and expenditure. It provides a valuable source of information about food purchases of the population which can be translated into estimates of food consumption and nutrient intake (Wrieden *et al.*, 2006). The survey however is not designed to measure intakes of specific individuals. The LCFS collects household food purchase and eating out data from every person over 7 years of age in each household over a 14 day period. However, LCFS data requires considerable secondary analysis to group the foods relevant to the SDGs and calculate statistically meaningful figures. Due to the nature of household food purchase data, the LCFS cannot be used to give information on median intakes or classify consumption by age or gender (further advantages and disadvantages of the LCFS are discussed in Appendix 2). Therefore the prevalence of individuals who are particularly high or low consumers of specific foods cannot be determined. The calculation of mean per capita consumption and nutrient intakes, with 95% confidence intervals is not straightforward and requires a series of factors to be applied to the data. This process is essential if any meaningful comparisons are to be made between years and groups classified by socio-economic factors such as deprivation (using the Scottish Index of Multiple Deprivation (SIMD)) (Scottish Government, 2009b).

Changes to Methodology over Time

Methods for the secondary analysis of the food purchase data of the LCFS and its predecessor the Expenditure and Food Survey (EFS) have been further developed and improved since the original report (Wrieden et al., 2006). For example in the original analysis all food purchase data was adjusted by subtracting 10% to take account of wastage following a similar procedure used by the Department of the Environment and Rural Affairs (Defra) in their analysis of the National Food Survey and EFS and LCFS data. Following the publication of the Waste and Resource Action Programme survey (WRAP 2008), Defra provided new figures which were based on more recent estimations of waste which varied according to food group. In the second and third reports of the analysis of the food purchase data of the EFS and LCFS (Barton et al., 2010, Barton and Wrieden, 2012) the data from 2001 onwards was revised to incorporate improvements to the methodology as follows:

1. Account for free food (e.g. from school meals, meals on wheels etc.). Defra adjusted the EFS data since the results of the secondary analysis published in 2006 (Wrieden et al., 2006) and have backdated these changes to 2001.
2. Adjust for waste using new factors, following the publication of the 2008 WRAP report (Waste and Resource Action Programme Survey (WRAP), 2008).
3. Include factors to account for the LCFS sampling methodology.
4. Make use of a refined coding frame to allocate specific proportions of foods to appropriate food groupings.

Coding Frames

The detailed coding frame reported by Barton *et al.* (Barton et al., 2010) compiled for both household and eaten out food purchases was re-ordered in line with the SDGs and used for the analysis (Appendices 3 and 4). This was based on that reported by Wrieden *et al*., 2006 which provides further detail on its derivation and on the disaggregation of foods where appropriate. The coding frame is based on 522 food codes allocated by Defra to household or eaten out food purchases. It lists groupings of foods (and codes) which form part of each dietary goal (or food group of interest) and gives details of conversion factors applied to the food weights. Conversion factors are necessary to apply the proportion of the food code applicable to the target food – for example, the vegetable contribution of vegetarian dishes is x0.4, a factor calculated from the NDNS adults 19-64 (Henderson *et al*., 2002). Where no factor was necessary, a factor of 1.0 was applied. Due to the type of data is not possible to put a ceiling on the contribution that fruit juice and baked beans make to total fruit and vegetable intake and "5-a-day" as often happens in dietary survey reporting. It was decided following the Wrieden et al. (2006) report to only report total fruit and vegetable intake rather than with and without fruit juice and baked beans. This decision was based on the fact that average fruit juice intake from 2001-2003 was 42g/day and average baked bean consumption was 12g/day, therefore well below the ceilings usually applied to fruit juice and baked beans of one 80g portion per day.

The coding frame for energy density (Appendix 4) was compiled in a similar way (Wrieden and Barton, 2011), it indicates which foods/drinks were included within the food and milk method of calculating energy density methods and list conversion factors. Foods which may not be consumed in their purchased state e.g. flour, stock cubes, jelly cubes were given a conversion factor of 1 as it was not possible to tell how these foods may be prepared and subsequently consumed.

Categorisation of Foods

The Defra EFS coding frames for household and eaten out food purchases were examined and foods forming part of each dietary goal (or other foods and drinks indicative of diet quality) were selected and categorised accordingly.

Conversion Factor

The conversion factors are applied to food purchases to estimate the actual amount of each food that is consumed. A conversion factor was calculated (for each food code, for household and eating out purchases); for the proportion of fruit, vegetable, meat etc. in a composite food; for the proportion of food in food grouping (where it bridges more than one food grouping); raw to cooked weight (where appropriate); proportion of inedible waste; and estimate of edible waste. Data for these conversion factors were taken from the 1st, 2nd, 5th and 6th supplements of the 5th edition of McCance and Widdowson's composition of foods (Holland *et al.,* 1992a; Holland *et al.,* 1992b; Chan *et al.,* 1995; Chan *et al.,* 1996). Where this data was not available from the above sources, information was sought from manufacturers' label data or market share data supplied by the Food Standards Agency. For details see Appendices 3 and 4.

Edible Waste

Estimates of waste for the UK population were first published by WRAP in 2008. The annex of the report on the 2007 EFS (Defra, 2008) expands on the information available in the WRAP report and provides waste information at a more detailed level. Defra have mapped waste figures, based on those in the WRAP report, to each of the food codes used in the LCFS. This information was obtained from Defra and used to assign a waste factor to each food code. The waste figures were provided for single and multiple adult households and were linked to the appropriate type of household prior to analysis. The figures published by WRAP account for edible waste; inedible waste (i.e. bone) was taken into account when calculating the conversion factor for each food code. WRAP waste figures for Scotland were published in 2009 (WRAP Scotland, 2009), however these could not be used in the current analysis as data was not available as a percentage of individual foods/food groups and therefore no mapping to Defra food codes could be carried out on this regional data. Likewise the UK 2009 update (WRAP, 2009) did not provide waste as a percentage of individual foods/food groups. For details see Appendix 5.

Data Handling

LCFS data for each year, in its raw form, was obtained from the UK Data Archive, University of Essex. The data comprised 3 files for each year – an Access database (Microsoft Corporation, 2003) containing raw data (at the household level) for food and drink purchases; and 2 SPSS files – one containing information on each household (HH file) and the other containing information on each person within each household (PP file). Appendix 6 provides a flowchart which illustrates the data handling process for data from each year, which are then merged in SPSS to obtain one working data file. The Scottish sample of the LCFS for each year was extracted from the Access database and the HH and PP SPSS files. Each household was allocated a new ID due to overlap in Case IDs between years.

Data on sampling strata and clusters and SIMD, quintile were obtained from the UK ONS. Data on SIMD by postcode were initially obtained from Scottish Neighbourhood Statistics and sent to ONS to link to anonymised case ID's.

Food Purchase Data

The Access database containing the Scottish food purchase data was linked to a table constructed from the coding frame, which listed each food grouping, each food within these groupings and the appropriate conversion factor to be applied to the calculations (where no factor was necessary 1.0 was applied). This table also contained data on waste for single and multiple adult households. Single and multiple adult households were selected in turn, the appropriate adjustment was then made for waste and the databases re-joined.

Household consumption (based on purchases) for each food code was multiplied by the appropriate conversion factor and summed by food grouping. This was then divided by the number of individuals in the household and divided by 14 to obtain the mean daily consumption per person.

For nutrients: household consumption data minus waste (based on purchases) for each food code was multiplied by the appropriate nutrient content per gram (provided by Defra) to provide the nutrient

intake per food. Household, eaten out and combined nutrient intakes for foods were then summed for each household. These were then divided by the number of individuals in the household and divided by 14 to obtain the mean daily intake per person for each nutrient.

Derivation of Additional Variables Required for Analysis Purposes

Additional descriptive variables for each household were extracted from the two SPSS files described previously and merged with data on sampling strata and clusters and SIMD, to form a SPSS file containing all additional variables.

Analysis of Data

The food consumption and nutrient intake data were exported to SPSS and merged with the additional variables file. Due to the multi-staged stratified sampling procedure of the LCFS, data were analysed using Descriptive Statistics and General Linear Models within the Complex Samples module of SPSS, version 19 (SPSS Inc., Chicago, IL, USA) and weighted according to the Scottish population.

The data were weighted so that estimates obtained for mean food consumption and nutrient intake more accurately reflected that of the Scottish population. The weights were provided by Defra.

Linear associations between food consumption/nutrient intake and year or SIMD quintile were assessed by linear regression within the general linear modelling section of the complex samples methodology module of SPSS, and a p-value for linear association was produced.

Appendix 2: Advantages and Disadvantages of the LCFS

The EFS/LCFS and their predecessor, the NFS, are annual household budget surveys designed to collect information about household food and expenditure. Further details about the design of the EFS/NFS are discussed in an earlier report (Wrieden *et al.*, 2003). The EFS/LCFS provide a valuable source of information about the food purchases of the population which can be translated into estimates of food consumption and nutrient intake (Wrieden *et al*., 2006). The survey however is not designed to measure intakes of specific individuals. The LCFS collects household food purchase data from every person over 7 years of age in each household for a 14 day period. The length of time the food diaries are kept (14 days) is a major strength of this study, as for most foods and nutrients the balance of intake is over more than 7-10 days. Methods that assess diet over shorter periods of time, e.g. three to four or less days, are less likely to give an accurate measure of intake. Due to the nature of the data collected in household budget surveys it is not possible to produce median intakes. Therefore, the prevalence of individuals who are particularly high or low consumers of a food, food group or nutrient cannot be determined.

Advantages

- The LCFS includes around 550 households (approximately 1,300 people) per year in mainland Scotland.
- It collects information over a period of 14 days on food and drink purchases and includes foods eaten within the household and those eaten out.
- The LCFS records food acquisitions rather than consumption and is therefore possibly less susceptible to under-reporting and non-response bias than weighed intake dietary surveys (Chesher, 1997).
- The LCFS is one of the few publically available sources of information on food purchased out of the home. This can be compared with consumption in the home.
- It can be used to assess all the SDGs (except salt and NMES in children), using the varieties and composition of food groups which were developed for the Barton *et al.* (2010) report.
- Data is collected continuously and published annually; it is possible to merge datasets over a number of years.
- Further information can be gained by linkage of data from the LCFS to the SIMD (for more information see Scottish Government, 2009b & Scottish Executive, 2004 respectively).

Disadvantages

- The information collected is based on food purchased rather than actually eaten, so specific wastage factors are incorporated for different food groups, based on recent research by WRAP (2008). Although this is an improvement on the previously used 10% estimation of waste for all foods, the figures are based on research carried out in England and do not include flat dwelling households.
- Results obtained are an estimate of the consumption of a typical average household member so no information can be derived regarding the consumption by specific sub-groups e.g. children.
- Median and other distributional characteristics relating to consumption cannot be estimated.

Appendix 3: Monitoring SDG's Coding Frame

This updated and simplified coding frame is based on that reported by Wrieden et al., 2006, which provides information on the disaggregation of foods where appropriate.

1. Dietary Goal: Average intake of a variety of fruit and vegetables to reach at least 5 portions per day (>400g per day)

- Fruit including fruit (and vegetable) juice
- Vegetables including baked beans
- Fruit and Vegetables including fruit (and vegetable) juice and baked beans (addition of 1 and 2)

Household Fruit - including fruit (and vegetable) juice

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
19603	Vegetable juices e.g. tomato juice, carrot juice	1	0.1	0.1
21001	Fresh oranges	1	0.3382	0.2325
21401	Other fresh citrus fruits	1	0.0536	0.041
21701	Fresh apples	1	0.6627	0.2772
21801	Fresh pears	1	0.1442	0.1929
22101	Fresh stone fruit	1	0.2036	0.1797
22201	Fresh grapes	1	0.0833	0.0778
22701	Other fresh soft fruit	1	0.433	0.2521
22801	Fresh bananas	1	0.1545	0.082
22901	Fresh melon	1	0.2848	0.1797
23101	Other fresh fruit	1	0.1404	0.0938
23301	Tinned peaches, pears & pineapples	0.6	0.0806	0.0899
23601	All other tinned or bottled fruit	0.52	0.0806	0.0899
24001	Dried fruit	3.71	0.0806	0.0899
24101	Frozen strawberries, apple slices, peach halves, oranges and other frozen fruits	1	0.0806	0.0899
24801	Pure fruit juices	1	0.1	0.1

Eating Out Fruit - including fruit (and vegetable) juice

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
200101	All citrus fruit, fresh e.g. orange, grapefruit	1	0	0
200102	Banana, fresh	1	0	0
200103	Apples, fresh	1	0	0
200104	Pears, fresh	1	0	0
200105	Stone fruit, fresh e.g. apricot, plum, peach, cherry, avocado	1	0	0
200106	Grapes, fresh	1	0	0
200107	Soft fruit/berries, fresh e.g. strawberries, blackberries - no cream/ice cream	1	0	0
200108	Melon, fresh	1	0	0
200109	Pineapple, fresh	1	0	0
200110	Fresh fruit salad, without cream/ice cream	1	0	0
200111	Other fresh fruit (kiwi, passion) & 'fruit', type not specified	1	0	0
200112	Free school fruit	1	0	0
200201	Dried fruit e.g. sultanas, raisins	3.71	0	0
200301	Tinned, stewed/baked or processed fruit - without cream/ice cream	1	0	0
240301	Fruit filling e.g. peaches for pancakes	1	0	0
260204	PURE fruit juices	1	0	0
260205	Vegetable juices e.g. tomato juice, carrot juice	1	0	0
290205	Fruit and other pies/pastries	0.5	0	0

Household Vegetables - including baked beans

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
16201	Cabbages, fresh	1	0.7014	0.4155
16301	Brussels sprouts, fresh	1	0.1701	0.0794
16401	Cauliflower, fresh	1	0.1449	0.1019
16701	Lettuce & leafy salads	1	0.5069	0.3519
16702	Prepared lettuce salads	1	0.6023	0.4633
16801	Peas, fresh	1	0.0917	0.0417
16901	Beans, fresh	1	0.5589	0.3071
17101	Other fresh green vegetables	1	0.2589	0.1589
17201	Carrots, fresh	1	0.3835	0.1681
17301	Turnips & swede, fresh	1	0.1231	0.0669
17401	Other root vegetable, fresh	1	0.225	0.1511
17501	Onions, leeks, shallots, fresh	1	0.2143	0.1408
17601	Cucumbers, fresh	1	0.3717	0.2357
17701	Mushrooms, fresh	1	0.1483	0.104
17801	Tomatoes, fresh	1	0.1582	0.0926
18301	Stewpack, stirfry pack, pack of mixed vegetables	1	0.3429	0.2301
18302	Stem vegetables	1	0.6075	0.453
18303	Marrow, courgettes, aubergine, pumpkin and other fresh vegetables	1	0.1691	0.1147
18304	Fresh herbs	1	0.1267	0.091
18401	Tomatoes, canned or bottled	1	0.1582	0.0926
18501	Peas, canned	1	0.0917	0.0417
18802	Baked beans in sauce	1	0.0828	0.0309
18803	Other canned beans & pulses	1	0.2589	0.1589
19101	Other canned vegetables	1	0.2589	0.1589
19201	Dried pulses other than air-dried	6.19	0.2589	0.1589
19501	Air-dried vegetables	14.39	0.3429	0.2301
19602	Tomato puree and vegetable purees	5.2	0.1267	0.091
20301	Peas, frozen	1	0.0917	0.0417
20401	Beans, frozen	1	0.5589	0.3071
20601	Ready meals & other vegetable products - frozen or not frozen	0.4	0.2563	0.29
20604	All vegetable takeaway products	0.4	0.2563	0.29
20801	Other frozen vegetables	1	0.2589	0.1589
29601	Pizzas - frozen and not frozen	0.16	0.2563	0.29
29602	Takeaway pizza	0.16	0.2563	0.29
31801	Soups - canned or cartons	0.3	0.2563	0.29
32001	Soups - from takeaway	0.3	0.2563	0.29
32201	Meals on wheels - items not specified	0.2	0.2563	0.29

Eating Out Vegetables - including baked beans

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
100103	Vegetable or fruit based curry	0.4	0	0
100104	Dhal & Dhal dishes	0.4	0	0
100106	Other Indian dishes	0.4	0	0
100108	Indian buffet or shared meal or unspecified Indian meal	0.2	0	0
100201	Chinese or Thai meat or fish based dishes excluding curry	0.2	0	0
100202	Chop suey and fu yung dishes	0.2	0	0
100203	Chinese or Thai vegetable based main course dishes	0.4	0	0
100204	Chinese or Thai curry	0.2	0	0
100206	Other Chinese or Thai dishes	0.2	0	0
100207	Chinese or Thai buffet or shared meal or unspecified Chinese or Thai meal	0.2	0	0
100301	All other ethnic meals	0.2	0	0
110601	Meat and vegetable stews, casseroles or hotpots	0.2	0	0
110602	Chicken or turkey stews, casseroles or hotpots	0.2	0	0
110603	Meat lasagne, cannelloni, moussaka and other meat-based oven baked dishes	0.2	0	0
130201	Pizza - cheese & tomato, vegetable; incl Pizza, type not specified	0.4	0	0
130202	Pizza - meat, fish or poultry	0.16	0	0
150101	Lettuce & cress	1	0	0
150102	Other green vegetables e.g. spinach, cabbage, sprouts	1	0	0
150201	Peppers - raw/cooked	1	0	0
150202	Courgettes, marrow, aubergine, pumpkin, plantain, cucumbers	1	0	0
150203	Peas & sweetcorn	1	0	0
150204	Baked Beans and other beans (not green beans) & pulses	1	0	0
150205	Tomato - fresh, raw	1	0	0
150206	Tomato - cooked or processed	1	0	0
150301	Carrots	1	0	0
150302	Onions - raw or cooked incl 'onions' type not specified	1	0	0
150303	Onions - fried	1	0	0
150304	Other root vegetables/ tubers e.g. turnip, parsnip, radish, beetroot	1	0	0
150401	Mushrooms - raw or cooked	1	0	0
150501	Mixed vegetables and 'veg' type not specified.	1	0	0
150502	Other vegetables e.g. artichoke, asparagus	1	0	0
150503	Vegetables in batter or breadcrumbs and deep fried veg e.g. onion rings	0.4	0	0
150504	Onion and other vegetable bhajis & pakora	0.4	0	0
150601	Veggie burger, bean burger, veggie sausage, nut roast	0.4	0	0

Eating Out Vegetables - including baked beans (continued)

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
150602	Vegetable lasagne, veg cannelloni, veg moussaka and other oven baked vegetable based dishes	0.4	0	0
150603	Stuffed vegetables (e.g. stuffed pepper) and vegetable based starter	0.4	0	0
150604	Vegetable based stews & casseroles and veg-based pies	0.4	0	0
160101	Mixed salad, main course - without dressing	1	0	0
160102	Mixed salad, side dish - without dressing; incl 'salad' type not specified	1	0	0
160103	Green salad - without dressing	1	0	0
160201	Vegetable/ fruit and nut salad - with dressing	0.4	0	0
160301	Meat salad e.g. beef, lamb salads	0.2	0	0
160302	Chicken or turkey salad	0.2	0	0
160303	Fish salad e.g. tuna, salmon salads	0.2	0	0
160401	Cheese salad including ploughman’s	0.2	0	0
160402	Egg salad	0.2	0	0
160501	Other salads e.g. Greek, Florida, Russian	0.2	0	0
160601	Salad buffet or buffet meal where items not specified	0.2	0	0
170105	Noodles with meat, vegetables etc.	0.2	0	0
180102	Vegetable-based soups	0.3	0	0
180104	Soups, other; incl soup not specified	0.3	0	0
230207	Vegetarian based sandwich on white bread or roll	0.4	0	0
230208	Vegetarian based sandwich on brown bread or roll	0.4	0	0
230209	Vegetarian based sandwich bread not specified	0.4	0	0
240102	Meat-based sauce e.g. Bolognese, chilli con carne	0.2	0	0
240104	Tomato-based sauce containing vegetables, incl ratatouille	0.4	0	0
240203	Coleslaw	0.4	0	0
240302	Vegetable filling	0.4	0	0
240701	Unspecified meal e.g. 'meal', 'school meal' or 'meal at work'	0.2	0	0

2. Dietary Goal: Oil rich fish consumption to increase to one portion per person (140g) per week

NB: Factors are multiplied by 7 in order that fish calculations can be carried out alongside those for other foods as the fish target is in grams per week and the other targets are in grams per day

Household Oil Rich Fish

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
10601	Herring & other blue fish, fresh or chilled	7	0.096	0.0418
10602	Herring & other blue fish, frozen	7	0.096	0.0418
10701	Salmon, fresh or chilled	7	0.096	0.0418
10702	Salmon, frozen	7	0.096	0.0418
10801	Blue fish, dried or salted or smoked	7	0.096	0.0418
11901	Tinned salmon	7	0.096	0.0418
12001	Other tinned or bottled fish	1.33	0.096	0.0418
12103	Ready meals & other fish products - frozen or not frozen	1.05	0.2563	0.29

Eating Out Oil Rich Fish

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
120201	Trout, tuna and salmon only - fresh - without sauce/dressing	7	0	0
120202	Other fatty fish - without sauce/dressing e.g. herring, mackerel, sardines	7	0	0
120401	Kippers and other smoked fish e.g. smoked salmon	7	0	0
120603	Fish based pie or other dish e.g. paella, kedgeree, tuna	1.05	0	0
160303	Fish salad e.g. tuna, salmon salads	0.7	0	0

3. Dietary Goal: Average intake of red and processed meat to be pegged at around 70g per person per day. Average intake of the very highest consumers of red and processed meat (90g per person per day) not to increase

Household Total Red Meat

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
5502	Bacon and ham joints, uncooked	0.69104	0.2041	0.133
5505	Bacon and ham rashers, uncooked	0.65825	0.2041	0.133
5801	Cooked ham & bacon	1	0.2041	0.133
3102	Beef: joints (including sides) on the bone	0.561	0.0815	0.0457
3103	Beef: joints (boned)	0.632697	0.0815	0.0457
3104	Beef steak (less expensive)	0.636751	0.0815	0.0457
3105	Beef steak (more expensive)	0.728463	0.0815	0.0457
3106	Beef, minced	0.82	0.0815	0.0457
3107	All other beef and veal	0.62	0.0815	0.0457
3601	Mutton	0.617767	0.0224	0.0262
3602	Lamb joints	0.589275	0.0224	0.0262
3603	Lamb chops	0.549128	0.0224	0.0262
3604	All other lamb	0.714897	0.0224	0.0262
4101	Pork joints	0.570298	0.2041	0.133
4102	Pork chops – uncooked	0.588	0.2041	0.133
4103	Pork fillets and steak	0.65	0.2041	0.133
4104	All other pork – uncooked	0.625934	0.2041	0.133
4603	Ox liver	0.91	0.0815	0.0457
4604	Lambs liver	0.78	0.0224	0.0262
4605	Pigs liver	0.88	0.2041	0.133
4607	All other liver	0.884907	0.0584	0.0401
5101	All offals other than liver	0.56119	0.0584	0.0401
6201	Corned beef/ corned meat (canned or sliced)	1	0.0815	0.0457
6601	Other cooked meat	0.954007	0.0584	0.0401
7102	Other canned meat and canned meat products	0.532811	0.0584	0.0401
7801	Other meat (rabbit, venison, etc) – uncooked	0.594	0.0584	0.0401
7901	Sausages (uncooked) - pork	0.78	0.0584	0.0401
8001	Sausages (uncooked) - beef	0.779	0.0584	0.0401
8302	Meat pies	0.271562	0.2563	0.29
8303	Sausage rolls	0.28	0.2563	0.29
8401	Meat pies, pasties and puddings	0.27445	0.2563	0.29
8501	Burgers	0.73	0.0584	0.0401
8901	COMPLETE meat-based ready meals	0.144783	0.2563	0.29
8902	Other convenience meat products	0.240481	0.2563	0.29
9301	Pâté	1	0.1324	0.0755
9302	Delicatessen type sausages: cooked or cured	1	0.0584	0.0401
9403	Meat pastes and spreads	1	0.1324	0.0755
9501	Takeaway meat pies & pasties	0.266316	0.2563	0.29
9502	Burger & bun eg hamburger	0.485	0.2563	0.29
9503	Kebabs	0.5	0.2563	0.29
9504	Sausages & saveloys	1	0.2563	0.29
9505	MEAT- based meals incl Indian & Chinese takeaways	0.208303	0.2563	0.29
9506	Miscellaneous meats	0.649653	0.2563	0.29

Eaten Out Total Red Meat

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
100101	Meat or fish based curry with sauce	0.0928	0	0
100102	Meat or fish based curry without sauce	0.5	0	0
100201	Chinese or Thai meat or fish based dishes excluding curry	0.17	0	0
100202	Chop suey and fu yung dishes	0.09	0	0
110101	Steak - without sauce e.g. braised, sirloin	1	0	0
110102	Roast meat with sauce or gravy	0.64	0	0
110103	Pork chops with sauce or gravy	0.81	0	0
110104	Lamb chops with sauce or gravy	0.67	0	0
110105	Spare ribs	1	0	0
110106	Bacon	1	0	0
110107	Gammon or ham	1	0	0
110108	All offal including liver, kidney, tongue	1	0	0
110204	Game with sauce or gravy	0.71	0	0
110301	Small or single burgers	0.39	0	0
110302	Large or double burgers	0.58	0	0
110401	Kebabs - all types including chicken	0.5	0	0
110402	Plain sausages e.g. beef, pork	1	0	0
110403	Other sausages	1	0	0
110404	Hot dogs and sausage sandwiches	0.1769	0	0
110501	Meat pies (pastry topped) and pasties	0.16	0	0
110502	Meat pies (potato topped e.g. shepherd's pie)	0.1963	0	0
110503	Sausage roll (pastry)	0.28	0	0
110601	Meat and vegetable stews, casseroles or hotpots	0.0529	0	0
110603	Meat lasagne, cannelloni, moussaka and other meat-based oven baked dishes	0.2041	0	0
110701	All pates	0.5	0	0
110801	Other meat products or dishes	0.2592	0	0
130202	Pizza - meat, fish or poultry	0.0337	0	0
160301	Meat salad e.g. beef, lamb salads	0.314	0	0
170105	Noodles with meat, vegetables etc.	0.2	0	0
230101	Meat based sandwich on white bread or roll	0.242	0	0
230102	Meat based sandwich on brown bread or roll	0.242	0	0
230103	Meat based sandwich bread not specified	0.242	0	0
230107	Bacon and egg based sandwich on white bread or roll including Bacon and Egg McMuffin	0.25	0	0
230108	Bacon and egg based sandwich on brown bread or roll	0.25	0	0
230109	Bacon and egg based sandwich bread not specified	0.25	0	0
240102	Meat-based sauce e.g. bolognese, chilli con carne	0.3366	0	0

Additional Foods and Drinks Indicative of Diet Quality

White, Brown/Wholemeal and Total Bread

Household White Bread

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
9502	Takeaway burger & bun	0.55	0.2563	0.29
25102	White bread, standard, unsliced	1	0.3335	0.2399
25202	White bread, standard, sliced	1	0.3335	0.2399
25701	White bread, premium, sliced and unsliced	1	0.3335	0.2399
25801	White bread, soft grain, sliced and unsliced	1	0.3335	0.2399
26302	Rolls - white, brown or wholemeal	0.78	0.3942	0.1718
26303	Malt bread and fruit loaves	1	0.0861	0.0241
26304	Vienna & French bread	1	0.3942	0.1718
26305	Starch reduced bread & rolls	1	0.3335	0.2399
26308	Other breads	1	0.3349	0.4585
26309	Sandwiches	0.3744	0.2563	0.29
26310	Sandwiches from takeaway	0.3744	0.2563	0.29
26311	Takeaway breads	1	0.3349	0.4585
26701	Buns, scones & teacakes	1	0.1239	0.1163
29601	Pizzas - frozen and not frozen	0.57	0.2563	0.29
29602	Takeaway pizza	0.57	0.2563	0.29

Eating Out White Bread

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
100107	Indian breads	1	0	0
110301	Small or single burgers	0.66	0	0
110302	Large or double burgers	0.39	0	0
110303	Chicken burger	0.46	0	0
110404	Hot dogs and sausage sandwiches	0.54	0	0
120602	Fish burgers (in bun)	0.49	0	0
130201	Pizza - cheese & tomato, vegetable; incl pizza, type not spec	0.57	0	0
130202	Pizza - meat, fish or poultry	0.57	0	0
220101	White bread, with or w/o butter/marg (toasted or untoasted)	1	0	0
220103	White, without butter/marg (or butter/marg not spec)	1	0	0
220105	Garlic bread	1	0	0
220106	Croissant	1	0	0
220107	Continental breads e.g. pitta, ciabatta, focaccia	1	0	0
220108	Muffins/ crumpets	1	0	0
220109	Fried bread, incl croutons	1	0	0
220110	Bread/ rolls/ toast etc, type not specified	0.78	0	0
230101	Meat-based, white bread/roll	0.52	0	0
230103	Meat-based, bread not specified	0.4056	0	0
230104	Chicken/turkey-based, white bread/roll	0.52	0	0
230106	Chicken/turkey-based, bread not specified	0.4056	0	0

230107	Bacon and egg, white bread/roll incl Bacon & Egg McMuffin	0.52	0	0
230109	Bacon and egg, bread not specified	0.4056	0	0
230110	Fish-based, white bread/roll	0.52	0	0
230112	Fish-based, bread not specified	0.4056	0	0
230201	Cheese-based, white bread/roll	0.52	0	0
230203	Cheese-based, bread not specified	0.4056	0	0
230204	Egg-based, white bread/roll incl Egg McMuffin	0.52	0	0
230206	Egg-based, bread not specified	0.4056	0	0
230207	Vegetarian-based, white bread/roll	0.52	0	0
230209	Vegetarian-based, bread not specified	0.4056	0	0
230210	Sweet-filled sandwich	0.4056	0	0
230211	Unspecified sandwiches or rolls	0.4056	0	0
290301	Waffles & pancakes	0.5	0	0
290401	Teacakes, scones, currant bun, iced bun	0.5	0	0

Household Brown/Wholemeal Bread

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
25901	Brown bread, sliced and unsliced	1	0.3335	0.2399
26001	Wholemeal & granary bread, sliced and unsliced	1	0.3335	0.2399
26302	Rolls - white, brown or wholemeal	0.22	0.3942	0.1718
26309	Sandwiches	0.1056	0.2563	0.29
26310	Sandwiches from takeaway	0.1056	0.2563	0.29

Eating Out Brown/Wholemeal Bread

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
220102	Brown or w/m bread, with or w/o butter/marg (inc toast)	1	0	0
220104	Brown/ wholemeal, without butter/margarine	1	0	0
220110	Bread/ rolls/ toast etc, type not specified	0.22	0	0
230102	Meat-based, brown bread/roll	0.52	0	0
230103	Meat-based, bread not specified	0.1144	0	0
230105	Chicken/turkey-based, brown bread/roll	0.52	0	0
230106	Chicken/turkey-based, bread not specified	0.1144	0	0
230108	Bacon and egg, brown bread/roll	0.52	0	0
230109	Bacon and egg, bread not specified	0.1144	0	0
230111	Fish-based, brown bread/roll	0.52	0	0
230112	Fish-based, bread not specified	0.1144	0	0
230202	Cheese-based, brown bread/roll	0.52	0	0
230203	Cheese-based, bread not specified	0.1144	0	0
230205	Egg-based, brown bread/roll	0.52	0	0
230206	Egg-based, bread not specified	0.1144	0	0
230208	Vegetarian-based, brown bread/roll	0.52	0	0
230209	Vegetarian-based, bread not specified	0.1144	0	0
230210	Sweet-filled sandwich	0.1144	0	0
230211	Unspecified sandwiches or rolls	0.1144	0	0

Breakfast Cereals

Household Wholegrain/High Fibre Breakfast Cereals

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
28101	Oatmeal and oat products	1	0.0275	0.0224
28202	Muesli	1	0.0275	0.0224
28203	High fibre breakfast cereals	1	0.0275	0.0224

Eating Out Wholegrain/High Fibre Breakfast Cereals

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
190101	Muesli and Oat Crunch Cereals	1	0	0
190102	Other high fibre breakfast cereals e.g. Allbran, Weetabix	1	0	0
190104	Hot breakfast cereals e.g. porridge, Ready Brek	1	0	0

Household Low Fibre or High NMES Breakfast Cereal

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
28204	Sweetened breakfast cereals	1	0.0275	0.0224

Eating Out Low Fibre or High NMES Breakfast Cereal

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
190103	Sweetened breakfast cereals e.g. Frosties, Sugar Puffs	1	0	0

Household Low fibre and Lower NMES Breakfast Cereal

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
28205	Other breakfast cereals	1	0.0275	0.0224

Eating Out Low Fibre and Lower NMES Breakfast Cereal

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
190105	Other breakfast cereals and type not specified e.g. Cornflakes, Rice Krispies, Special K	1	0	0

Cakes, Biscuits and Pastries

Household Cakes and Pastries

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
27001	Cakes & pastries, not frozen	1	0.2802	0.1703
27002	Takeaway pastries	1	0.2802	0.1703
28601	Puddings	1	0.0638	0.0283
29402	Cakes & pastries - frozen	1	0.2802	0.1703

Eating Out Cakes and Pastries

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
290201	Doughnut	1	0	0
290202	Cream pastries e.g. chocolate éclairs, profiteroles	1	0	0
290203	Cream sponge/ gateau (not chocolate) e.g.Victoria sandwich	1	0	0
290204	Rich chocolate cake & chocolate gateau e.g. Death by Chocolate	1	0	0
290205	Fruit and other pies/pastries	1	0	0
290206	Fruit cake	1	0	0
290207	Other sponge cakes/desserts (not cream cakes)	1	0	0
290209	Meringue desserts incl Pavlova	1	0	0
290210	Cheesecake	1	0	0
290214	Other cakes and desserts incl not specified	1	0	0
290301	Waffles & pancakes	0.5	0	0
290401	Teacakes, scones, currant bun, iced bun	0.5	0	0

Household Sweet Biscuits

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
27402	Sweet biscuits (not chocolate) & cereal bars	1	0.0539	0.0438
27702	Chocolate biscuits	1	0.0539	0.0438

Eating Out Sweet Biscuits

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
300101	Fully-coated chocolate biscuits/ wafers	1	0	0
300102	Sweet biscuits incl half- coated chocolate biscuits	1	0	0
300103	Cereal bars and cereal based cakes	1	0	0

Sugar and Preserves

Household Sugar and Preserves

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
15001	Sugar	1	0.1267	0.091
15101	Jams & fruit curds	1	0.1267	0.091
15201	Marmalade	1	0.1267	0.091
15301	Syrup, treacle	1	0.1267	0.091
15401	Honey	1	0.1267	0.091
32303	Other spreads & dressings	1	0.1267	0.091
32901	Jelly squares or crystals	1	0.0638	0.0283

Eating Out Sugar and Preserves

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
240106	Sweet sauce e.g. syrup, treacle, chocolate sauce	1	0	0
240402	Jam, marmalade & honey	1	0	0
240405	Sugar (as an addition to tea, coffee etc)	1	0	0
290212	Jelly	1	0	0

Confectionery

Household Chocolate Confectionery

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
35001	Chocolate bars - solid	1	0.0958	0.0575
35101	Chocolate bars - filled	1	0.0958	0.0575

Eating Out Chocolate Confectionery

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
280101	Chocolate bars & sweets – solid, unfilled incl 'chocolate', type not specified	1	0	0
280102	Chocolate-coated bars & sweets - filled e.g. Mars, Snickers, Minstrels	1	0	0
280103	Single chocolate (after dinner)	1	0	0

Household Sugar Confectionery

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
35301	Mints	1	0.0958	0.0575
35302	Boiled sweets	1	0.0958	0.0575
35401	Fudges, toffees, caramels	1	0.0958	0.0575
35501	Takeaway confectionery	1	0.0958	0.0575

Eating Out Sugar Confectionery

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
280105	Mints e.g. Polo, Extra Strong	1	0	0
280106	Boiled sweets, jellies e.g. fruit gums incl 'sweets', type not specified	1	0	0
280107	Toffee/fudge, uncoated eg Toffos, Choc Eclairs, caramels	1	0	0
280108	Pick n mix, nougat, liquorice and other sweets	1	0	0

Soft Drinks

Household Sugar Containing Soft Drinks

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
34001	Soft drinks, concentrated, not low calorie	1	0.1	0.1
34101	Soft drinks, not concentrated, not low calorie	1	0.1	0.1

Eating Out Sugar Containing Soft Drinks

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
260203	Soft drink (incl carbonates & still), not low calorie incl low calorie/ not low cal not specified	1	0	0
260206	Soft drink where pure juice or juice drink not specified	1	0	0

Household Sugar Free Soft Drinks

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
34301	Soft drinks, concentrated, low calorie	1	0.1	0.1
34401	Soft drinks, not concentrated, low calorie	1	0.1	0.1

Eating Out Sugar Free Soft Drinks

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
260202	Soft drink (incl carbonates & still), low calorie	1	0	0

Meat Products

Household Bacon and Ham

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
5502	Bacon and ham joints, uncooked	0.69104	0.2041	0.133
5505	Bacon and ham rashers, uncooked	0.65825	0.2041	0.133
5801	Cooked ham & bacon	1	0.2041	0.133

Eaten Out Bacon and Ham

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
110106	Bacon	1	0	0
110107	Gammon or ham	1	0	0
230107	Bacon and egg based sandwich on white bread or roll including Bacon and Egg McMuffin	0.25	0	0
230108	Bacon and egg based sandwich on brown bread or roll	0.25	0	0
230109	Bacon and egg based sandwich bread not specified	0.25	0	0

Household Other Red Meat Products

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
6201	Corned beef/ corned meat (canned or sliced)	1	0.0815	0.0457
6601	Other cooked meat	0.954007	0.0584	0.0401
7102	Other canned meat and canned meat products	0.532811	0.0584	0.0401
7901	Sausages (uncooked) - pork	0.78	0.0584	0.0401
8001	Sausages (uncooked) - beef	0.779	0.0584	0.0401
8302	Meat pies	0.271562	0.2563	0.29
8303	Sausage rolls	0.28	0.2563	0.29
8401	Meat pies, pasties and puddings	0.27445	0.2563	0.29
8501	Burgers	0.73	0.0584	0.0401
8902	Other convenience meat products	0.240481	0.2563	0.29
9301	Pâté	1	0.1324	0.0755
9302	Delicatessen type sausages: cooked or cured	1	0.0584	0.0401
9403	Meat pastes and spreads	1	0.1324	0.0755
9501	Takeaway meat pies & pasties	0.266316	0.2563	0.29
9502	Burger & bun e.g. hamburger	0.485	0.2563	0.29
9503	Kebabs	0.5	0.2563	0.29
9504	Sausages & saveloys	1	0.2563	0.29
9506	Miscellaneous meats	0.649653	0.2563	0.29

Eaten Out Other Red Meat Products

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
110301	Small or single burgers	0.39	0	0
110302	Large or double burgers	0.58	0	0
110401	Kebabs - all types including chicken	0.5	0	0
110402	Plain sausages e.g. beef, pork	1	0	0
110403	Other sausages	1	0	0
110404	Hot dogs and sausage sandwiches	0.1769	0	0
110501	Meat pies (pastry topped) and pasties	0.16	0	0
110502	Meat pies (potato topped e.g. shepherd's pie)	0.1963	0	0
110503	Sausage roll (pastry)	0.28	0	0
110701	All pates	0.5	0	0
110801	Other meat products or dishes	0.2592	0	0
130202	Pizza - meat, fish or poultry	0.0337	0	0
160301	Meat salad e.g. beef, lamb salads	0.314	0	0
230101	Meat based sandwich on white bread or roll	0.242	0	0
230102	Meat based sandwich on brown bread or roll	0.242	0	0
230103	Meat based sandwich bread not specified	0.242	0	0

Milk

Household Whole Milk

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
402	UHT milk	1	0.1	0.1
403	Sterilised	1	0.1	0.1
404	Pasteurised/ homogenised	1	0.1	0.1

Household Semi-skimmed Milk

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
1503	Semi-skimmed milk	1	0.1	0.1

Household Skimmed Milk

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
1502	Fully skimmed milk	1	0.1	0.1

Household Total Milk

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
402	UHT milk	1	0.1	0.1
403	Sterilised	1	0.1	0.1
404	Pasteurised/ homogenised	1	0.1	0.1
501	School milk	1	0.1	0.1
601	Welfare milk	1	0.1	0.1
901	Condensed or evaporated milk	2.6	0.1	0.1
1102	Infant or baby milks - ready to drink	1	0.1	0.1
1103	Infant or baby milks - dried	1	0.1	0.1
1201	Instant dried milk	1	0.1	0.1
1502	Fully skimmed milk	1	0.1	0.1
1503	Semi-skimmed milk	1	0.1	0.1
1605	Dried milk products	1	0.1	0.1
1606	Milk drinks & other milks (replaced 200405 onwards)	1	0.1	0.1
1607	Milk drinks & other milks	1	0.1	0.1

Eating Out Total Milk

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
260301	Milk as a drink	1	0	0
260302	Milk on cereal	1	0	0
260303	Milkshake and flavoured milk	1	0	0
260304	Free school milk	1	0	0

White Fish

NB: Factors are multiplied by 7 in order that fish calculations can be carried out alongside those for other foods as the fish target is in grams per week and the other targets are in grams per day

Household White Fish

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
10201	White fish, fresh or chilled	7	0.096	0.0418
10202	White fish, frozen	7	0.096	0.0418
11401	White fish, dried or salted or smoked	7	0.096	0.0418
11702	Shellfish, fresh or chilled	7	0.2178	0.0621
11703	Shellfish, frozen	7	0.2178	0.0621
11801	Takeaway fish	3.85	0.096	0.0418
12001	Other tinned or bottled fish	5.67	0.096	0.0418
12103	Ready meals & other fish products - frozen or not frozen	2.45	0.2563	0.29
12304	Takeaway fish products	3.5	0.2563	0.29
12305	Takeaway fish based meals	3.5	0.2563	0.29

Eating Out White Fish

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
100101	Meat or fish based curry with sauce	1.75	0	0
100102	Meat or fish based curry without sauce	1.75	0	0
100201	Chinese or Thai meat or fish based dishes excluding curry	1.75	0	0
120101	White fish - grilled, steamed, baked or boiled - no sauce	7	0	0
120102	White fish - fried (incl in batter/breadcrumbs) - no sauce	3.85	0	0
120301	Shellfish - without sauce or dressing e.g. prawns, shrimps, oysters, crab	7	0	0
120501	Other fish products and unspecified 'fish' e.g. squid, sushi, crabsticks	7	0	0
120601	Fish, processed, in breadcrumbs (fish fingers, fish cakes, scampi) - without sauce/dressing	3.5	0	0
120602	Fish burgers [in bun]	1.575	0	0
120603	Fish based pie or other dish e.g. paella, kedgeree, tuna pasta bake	2.45	0	0
130202	Pizza - meat, fish or poultry	0.175	0	0

160303	Fish salad e.g. tuna, salmon salads	0.7	0	0
230110	Fish based sandwich on white bread or roll	2.31	0	0
230111	Fish based sandwich on brown bread or roll	2.31	0	0
230112	Fish based sandwich bread not specified	2.31	0	0
240103	Fish or seafood based sauce	3.43	0	0
240304	Fish-based filling e.g. tuna mayonnaise	4.55	0	0

Butter

Household Butter

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
13501	Butter	1	0.0386	0.0176

Processed Potatoes

Household Processed Potatoes

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
19702	Chips - frozen or not frozen	1	0.3718	0.2416
19703	Takeaway chips	1	0.3718	0.2416
19801	Instant potato	1	0.3718	0.2416
19901	Canned potatoes	1	0.3718	0.2416
20101	Other potato products - frozen or not frozen	1	0.3718	0.2416

Eating Out Processed Potatoes

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
140101	Chips & French fries - from fast food outlet e.g. McDonalds	1	0	0
140102	Chips - served with meal e.g. from restaurant, chip shop	1	0	0

Savoury Snacks

Household Savoury Snacks

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
20002	Crisps & potato snacks	1	0.1239	0.0809
29909	Cereal snacks	1	0.0275	0.0224
29916	Takeaway crisps, savoury snacks, popcorn, popadums, prawn crackers	1	0.1239	0.0809

Eating Out Savoury Snacks

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
310102	Potato crisps or snacks including unspecified 'crisps', prawn crackers	1	0	0
310103	Corn snacks, based on maize	1	0	0
310104	Wheat-based savoury snack	1	0	0

Takeaway Foods

Household Takeaway Foods

Defra Code	Food Description	Factor	Single Adult HH Waste	Multiple Adult HH Waste
5904	Takeaway chicken	1	0.1855	0.0837
9501	Takeaway meat pies & pasties	1	0.2563	0.29
9502	Takeaway burger & bun	1	0.2563	0.29
9503	Takeaway kebabs	1	0.2563	0.29
9504	Takeaway sausages & saveloys	1	0.2563	0.29
9505	Takeaway meat based meals	1	0.2563	0.29
9506	Takeaway miscellaneous meats	1	0.2563	0.29
11801	Takeaway fish	1	0.096	0.0418
12304	Takeaway fish products	1	0.2563	0.29
12305	Takeaway fish based meals	1	0.2563	0.29
19703	Takeaway chips	1	0.3718	0.2416
20604	All vegetable takeaway products	1	0.2563	0.29
26310	Sandwiches from takeaway	1	0.2563	0.29
26311	Takeaway breads	1	0.3349	0.4585
27002	Takeaway pastries	1	0.2802	0.1703
28704	Takeaway rice	1	0.2335	0.1402
29503	Takeaway pasta & noodles	1	0.2563	0.29
29602	Takeaway pizza	1	0.2563	0.29
29916	Takeaway crisps, savoury snacks, popcorn, popadoms, prawn crackers	1	0.1239	0.0809
32001	Soups - from takeaway	1	0.2563	0.29
32101	Other takeaway food brought home	1	0.2563	0.29
32704	Takeaway sauces and mayonnaise	1	0.1267	0.091
33304	Takeaway ice cream, ice cream products, milkshakes	1	0.0638	0.0283
35501	Takeaway confectionery	1	0.0958	0.0575

Appendix 4: Energy Density Coding Frame

Food Code	Description	HH / EO	Food & Milk	Factor
402	UHT whole milk	HH	✓	1
403	Sterilised whole milk	HH	✓	1
404	Pasteurised or homogenised whole milk	HH	✓	1
501	School milk	HH	✓	1
601	Welfare milk	HH	✓	1
901	Condensed or evaporated milk	HH	✓	1
1102	Infant or baby milks - ready to drink	HH	✓	1
1103	Infant or baby milks - dried (reconstituted)	HH	✓	1
1201	Instant dried milk (reconstituted)	HH	✓	1
1301	Yoghurt	HH	✓	1
1302	Fromage frais	HH	✓	1
1502	Fully skimmed milk	HH	✓	1
1503	Semi-skimmed milk	HH	✓	1
1603	Dairy desserts - not frozen	HH	✓	1
1605	Dried milk products (reconstituted)	HH	✓	1
1606	Milk drinks & other milks	HH	✓	1
1607	Milk drinks & other milks	HH	✓	1
1608	Non-dairy milk substitutes	HH	✓	1
1701	Cream	HH	✓	1
2201	Hard cheese - Cheddar type	HH	✓	1
2202	Hard cheese - Other	HH	✓	1
2203	Hard cheese - Edam	HH	✓	1
2205	Cottage cheese	HH	✓	1
2206	Soft natural cheese	HH	✓	1
2301	Processed cheese	HH	✓	1
3102	Beef joints - on the bone	HH	✓	0.56
3103	Beef joints - boned	HH	✓	0.63
3104	Beef steak - less expensive	HH	✓	0.64
3105	Beef steak - more expensive	HH	✓	0.73
3106	Minced beef	HH	✓	0.82
3107	All other beef and veal	HH	✓	0.62
3601	Mutton	HH	✓	0.62
3602	Lamb joints	HH	✓	0.59
3603	Lamb chops	HH	✓	0.55
3604	All other lamb	HH	✓	0.71
4101	Pork joints	HH	✓	0.57
4102	Pork chops	HH	✓	0.59
4103	Pork fillets and steaks	HH	✓	0.65
4104	All other pork	HH	✓	0.63
4603	Ox liver	HH	✓	0.91
4604	Lambs liver	HH	✓	0.78
4605	Pigs liver	HH	✓	0.88
4607	All other liver	HH	✓	0.88
5101	All offal other than liver	HH	✓	0.56
5502	Bacon and ham joints, uncooked	HH	✓	0.69
5505	Bacon and ham rashers, uncooked	HH	✓	0.66
5801	Ham and bacon (cooked)	HH	✓	1
5903	Cooked chicken and turkey	HH	✓	1
5904	Takeaway chicken	HH	✓	1
6201	Corned beef - canned or sliced	HH	✓	1
6601	Other cooked meat	HH	✓	1
7102	Other canned meat and meat products	HH	✓	1
7401	Chicken - whole or part	HH	✓	0.54
7703	Turkey - whole or part	HH	✓	0.55
7704	Poultry other than chicken or turkey	HH	✓	0.46
7801	Other fresh, chilled or frozen meat	HH	✓	0.59
7901	Sausages, uncooked - pork	HH	✓	0.78
8001	Sausages, uncooked - beef etc.	HH	✓	0.78
8302	Meat pies - ready to eat	HH	✓	1
8303	Sausage rolls - ready to eat	HH	✓	1
8401	Meat pies, pasties and puddings	HH	✓	1
8501	Burgers - frozen or not frozen	HH	✓	0.73

8901	Complete meat-based ready meals	HH	✓	1
8902	Other convenience meat products	HH	✓	1
9301	Pate	HH	✓	1
9302	Delicatessen type sausages	HH	✓	1
9403	Meat pastes and spreads	HH	✓	1
9501	Takeaway meat pies and pasties	HH	✓	1
9502	Takeaway burger and bun	HH	✓	1
9503	Takeaway kebabs	HH	✓	1
9504	Takeaway sausages and saveloys	HH	✓	1
9505	Takeaway meat based meals	HH	✓	1
9506	Takeaway miscellaneous meats	HH	✓	1
10201	White fish, fresh or chilled	HH	✓	0.94
10202	White fish, frozen	HH	✓	0.94
10601	Herrings and other blue fish, fresh/chilled	HH	✓	0.89
10602	Herrings and other blue fish, frozen	HH	✓	0.89
10701	Salmon, fresh or chilled	HH	✓	0.94
10702	Salmon, frozen	HH	✓	0.94
10801	Blue fish, dried or salted or smoked	HH	✓	0.71
11401	White fish, dried or salted or smoked	HH	✓	0.97
11702	Shellfish, fresh or chilled	HH	✓	1
11703	Shellfish, frozen	HH	✓	1
11801	Takeaway fish	HH	✓	1
11901	Tinned salmon	HH	✓	1
12001	Other tinned or bottled fish	HH	✓	1
12103	Ready meals and other fish products	HH	✓	1
12304	Takeaway fish products	HH	✓	1
12305	Takeaway fish based meals	HH	✓	1
12901	Eggs	HH	✓	50
13501	Butter	HH	✓	1
13801	Soft margarine	HH	✓	1
13802	Other margarine	HH	✓	1
13901	Lard, cooking fat	HH	✓	1
14304	Olive Oil	HH	✓	1
14305	Other vegetable and salad oils	HH	✓	1
14802	Reduced fat spreads	HH	✓	1
14803	Low fat spreads	HH	✓	1
14805	Suet and dripping	HH	✓	1
14807	Imitation cream	HH	✓	1
15001	Sugar	HH	✓	1
15101	Jams and fruit curds	HH	✓	1
15201	Marmalade	HH	✓	1
15301	Syrup, treacle	HH	✓	1
15401	Honey	HH	✓	1
15501	Potatoes	HH	✓	1
15502	Potatoes	HH	✓	1
15503	Potatoes	HH	✓	1
15504	Fresh potatoes not specified elsewhere	HH	✓	1
15505	Fresh new potatoes	HH	✓	1
15506	Fresh baking potatoes	HH	✓	1
16201	Fresh cabbages	HH	✓	1
16301	Fresh Brussels sprouts	HH	✓	1
16401	Fresh cauliflower	HH	✓	1
16701	Lettuce and leafy salads	HH	✓	1
16702	Prepared lettuce salads	HH	✓	1
16801	Fresh peas	HH	✓	1
16901	Fresh beans	HH	✓	1
17101	Other fresh green vegetables	HH	✓	1
17201	Fresh carrots	HH	✓	1
17301	Fresh turnips and swede	HH	✓	1
17401	Other fresh root vegetables	HH	✓	1
17501	Fresh onions, leeks and shallots	HH	✓	1
17601	Fresh cucumbers	HH	✓	1
17701	Fresh mushrooms	HH	✓	1
17801	Fresh tomatoes	HH	✓	1
18301	Fresh vegetable stewpack, stirfry pack etc.	HH	✓	1
18302	Fresh stem vegetables	HH	✓	1
18303	Fresh marrow, courgettes, aubergine, pumpkin and other veg	HH	✓	1

18304	Fresh herbs	HH	✓	1
18401	Tomatoes, canned or bottled	HH	✓	1
18501	Peas, canned	HH	✓	1
18802	Baked beans in sauce	HH	✓	1
18803	Other canned beans and pulses	HH	✓	1
19101	Other canned vegetables	HH	✓	1
19201	Dried pulses, other than air-dried	HH	✓	6.19
19501	Air-dried vegetables	HH	✓	14.39
19602	Tomato puree and vegetable purees	HH	✓	1
19603	Vegetable juices e.g. tomato, carrot	HH	×	1
19702	Chips - frozen or not frozen	HH	✓	1
19703	Takeaway chips	HH	✓	1
19801	Instant potato	HH	✓	1
19901	Canned potatoes	HH	✓	1
20002	Crisps and potato snacks	HH	✓	1
20101	Other potato products	HH	✓	1
20301	Peas, frozen	HH	✓	1
20401	Beans, frozen	HH	✓	1
20601	Ready meals & other vegetable products	HH	✓	1
20604	All vegetable takeaway products	HH	✓	1
20801	Other frozen vegetables	HH	✓	1
21001	Fresh oranges	HH	✓	1
21401	Other fresh citrus fruits	HH	✓	1
21701	Fresh apples	HH	✓	1
21801	Fresh pears	HH	✓	1
22101	Fresh stone fruit	HH	✓	1
22201	Fresh grapes	HH	✓	1
22701	Other fresh soft fruit	HH	✓	1
22801	Fresh bananas	HH	✓	1
22901	Fresh melons	HH	✓	1
23101	Other fresh fruit	HH	✓	1
23301	Tinned peaches, pears and pineapples	HH	✓	1
23601	All other tinned or bottled fruit	HH	✓	1
24001	Dried fruit	HH	✓	1
24101	Frozen strawberries, apples, peach halves, oranges & other fruits	HH	✓	1
24502	Nuts & edible seeds	HH	✓	1
24503	Peanut butter	HH	✓	1
24801	Pure fruit juices	HH	×	1
25102	White bread, standard, unsliced	HH	✓	1
25202	White bread, standard, sliced	HH	✓	1
25701	White bread, premium, sliced and unsliced	HH	✓	1
25801	White bread, soft grain, sliced and unsliced	HH	✓	1
25901	Brown bread, sliced and unsliced	HH	✓	1
26001	Wholemeal and granary bread	HH	✓	1
26302	Rolls - white, brown or wholemeal	HH	✓	1
26303	Malt bread and fruit loaves	HH	✓	1
26304	Vienna and French bread	HH	✓	1
26305	Starch reduced bread and rolls	HH	✓	1
26308	Other breads	HH	✓	1
26309	Sandwiches	HH	✓	1
26310	Sandwiches from takeaway	HH	✓	1
26311	Takeaway breads	HH	✓	1
26401	Flour	HH	✓	1
26701	Buns, scones and teacakes	HH	✓	1
27001	Cakes and pastries, not frozen	HH	✓	1
27002	Takeaway pastries	HH	✓	1
27101	Crispbread	HH	✓	1
27402	Sweet biscuits (not choc) and cereal bars	HH	✓	1
27403	Cream crackers & other unsweetened biscuits	HH	✓	1
27702	Chocolate biscuits	HH	✓	1
28101	Oatmeal and oat products	HH	✓	1
28202	Muesli	HH	✓	1
28203	High fibre breakfast cereals	HH	✓	1
28204	Sweetened breakfast cereals	HH	✓	1
28205	Other breakfast cereals	HH	✓	1
28502	Canned or fresh carton custard	HH	✓	1
28503	All canned milk puddings	HH	✓	1

28601	Puddings	HH	✓	1
28702	Dried rice	HH	✓	2.77
28703	Cooked rice	HH	✓	1
28704	Takeaway rice	HH	✓	1
29001	Invalid, slimming and sports foods	HH	✓	1
29101	Infant cereal foods	HH	✓	1
29402	Cakes and pastries - frozen	HH	✓	1
29501	Canned pasta	HH	✓	1
29502	Dried and fresh pasta	HH	✓	2.27
29503	Takeaway pasta and noodles	HH	✓	1
29601	Pizzas - frozen and not frozen	HH	✓	1
29602	Takeaway pizza	HH	✓	1
29907	Cake, pudding and dessert mixes	HH	✓	8.50
29909	Cereal snacks	HH	✓	1
29915	Quiches and flans - frozen and not frozen	HH	✓	1
29916	T/A crisps, savoury snacks, popcorn, popadums, prawn crackers	HH	✓	1
29919	Other cereal foods - frozen and not frozen	HH	✓	1
30101	Other cereals	HH	✓	1
30401	Tea	HH	×	83
30701	Coffee beans and ground coffee	HH	×	52
30801	Instant coffee	HH	×	173
30901	Coffee essences	HH	×	20.8
31001	Tea and coffee from takeaway	HH	×	1
31201	Cocoa and chocolate drinks	HH	✓	1
31301	Malt drinks and chocolate versions of malted drinks	HH	✓	1
31401	Mineral or spring waters	HH	×	1
31501	Baby foods	HH	✓	1
31801	Soups - canned or cartons	HH	✓	1
31901	Soups - dehydrated or powdered	HH	✓	9.40
32001	Soups - from takeaway	HH	✓	1
32101	Other takeaway food brought home	HH	×	
32201	Meals on wheels - items not specified	HH	✓	1
32302	Salad dressings	HH	✓	1
32303	Other spreads and dressings	HH	✓	1
32702	Pickles	HH	✓	1
32703	Sauces	HH	✓	1
32704	Takeaway sauces and mayonnaise	HH	✓	1
32801	Stock cubes and meat and yeast extracts	HH	✓	1
32901	Jelly squares or crystals	HH	✓	1
33203	Ice cream tub or block	HH	✓	1
33302	Ice cream cornets, choc-ices, lollies with ice cream	HH	✓	1
33303	Ice lollies, sorbet, frozen mousse, frozen yoghurt	HH	✓	1
33304	Takeaway ice cream, ice cream products, milkshakes	HH	✓	1
33401	Salt	HH	×	
33501	Artificial sweeteners	HH	×	
33602	Vinegar	HH	×	
33603	Spices and dried herbs	HH	×	
33604	Bisto, gravy granules, stuffing mix, baking powder, yeast	HH	×	
33605	Wine and beer making kits	HH	×	
33606	Fruit teas, instant tea, herbal tea, rosehip tea	HH	×	
33607	Payment for food, type not specified	HH	×	
33901	Soya and novel protein foods	HH	✓	1
34001	Soft drinks, concentrated, not low calorie (reconstituted)	HH	×	1
34101	Soft drinks, not concentrated, not low calorie (reconstituted)	HH	×	1
34301	Soft drinks, concentrated, low calorie	HH	×	1
34401	Soft drinks, not concentrated, low calorie	HH	×	1
35001	Chocolate bars - solid	HH	✓	1
35101	Chocolate bars - filled	HH	✓	1
35202	Chewing gum	HH	✓	1
35301	Mints	HH	✓	1
35302	Boiled sweets	HH	✓	1
35401	Fudges, toffees, caramels	HH	✓	1
35501	Takeaway confectionery	HH	✓	1
38102	Beers	HH	×	1
38202	Lagers and continental beers	HH	×	1
38302	Ciders and perry	HH	×	1
38402	Champagne, sparkling wines & wine with mixer	HH	×	1

38403	Table wine	HH	×	1
38501	Spirits with mixer	HH	×	1
38601	Fortified wines	HH	×	1
38701	Spirits	HH	×	1
38801	Liqueurs and cocktails	HH	×	1
38901	Alcopops	HH	×	1
100101	Meat or fish based curry with sauce	EO	✓	1
100102	Meat or fish based curry without sauce	EO	✓	1
100103	Vegetable or fruit based curry	EO	✓	1
100104	Dhal and dhal dishes	EO	✓	1
100105	Samosas	EO	✓	1
100106	Other Indian dishes	EO	✓	1
100107	Indian breads	EO	✓	1
100108	Indian buffet or shared meal or unspecified Indian meal	EO	✓	1
100201	Chinese or Thai meat or fish based dishes excluding curry	EO	✓	1
100202	Chop suey and fu yung dishes	EO	✓	1
100203	Chinese or Thai vegetable based main course dishes ex. curry	EO	✓	1
100204	Chinese or Thai curry	EO	✓	1
100205	Spring rolls	EO	✓	1
100206	Other Chinese or Thai dishes	EO	✓	1
100207	Chinese or Thai buffet or shared meal or unspecified meal	EO	✓	1
100301	All other ethnic meals	EO	✓	1
110101	Steak - without sauce e.g. braised, sirloin	EO	✓	1
110102	Roast meat with sauce or gravy	EO	✓	1
110103	Pork chops with sauce or gravy	EO	✓	1
110104	Lamb chops with sauce or gravy	EO	✓	1
110105	Spare ribs	EO	✓	1
110106	Bacon	EO	✓	1
110107	Gammon or ham	EO	✓	1
110108	All offal including liver, kidney, tongue	EO	✓	1
110201	Chicken or turkey with sauce or gravy	EO	✓	1
110202	Chicken or turkey in breadcrumbs or batter	EO	✓	1
110203	Duck with sauce or gravy	EO	✓	1
110204	Game with sauce or gravy	EO	✓	1
110301	Small or single burgers	EO	✓	1
110302	Large or double burgers	EO	✓	1
110303	Chicken burger	EO	✓	1
110401	Kebabs - all types including chicken	EO	✓	1
110402	Plain sausages e.g. beef, pork	EO	✓	1
110403	Other sausages	EO	✓	1
110404	Hot dogs and sausage sandwiches	EO	✓	1
110501	Meat pies (pastry topped) and pasties	EO	✓	1
110502	Meat pies (potato topped e.g. shepherd's pie)	EO	✓	1
110503	Sausage roll (pastry)	EO	✓	1
110601	Meat and vegetable stews, casseroles or hotpots	EO	✓	1
110602	Chicken or turkey stews, casseroles or hotpots	EO	✓	1
110603	Lasagne, cannelloni, moussaka & other meat-based oven baked dishes	EO	✓	1
110701	All pates	EO	✓	1
110801	Other meat products or dishes	EO	✓	1
120101	White fish - grilled, steamed, baked or boiled - without sauce	EO	✓	1
120102	White fish - fried (incl in batter/breadcrumbs) - without sauce	EO	✓	1
120201	Trout, tuna and salmon only - fresh - without sauce or dressing	EO	✓	1
120202	Other fatty fish – w/o sauce or dressing e.g. herring, mackerel, sardines	EO	✓	1
120301	Shellfish w/o sauce or dressing e.g. prawns, shrimps, oysters, crab	EO	✓	1
120401	Kippers and other smoked fish e.g. salmon	EO	✓	1
120501	Other fish products and unspecified 'fish' e.g. squid, sushi, crabsticks	EO	✓	1
120601	Fish processed in breadcrumbs (fish fingers, fish cakes, scampi)	EO	✓	1
120602	Fish burgers (in bun)	EO	✓	1
120603	Fish based pie or other dish e.g. paella, kedgeree, tuna pasta bake	EO	✓	1
130101	Cottage cheese including with pineapple	EO	✓	1
130102	Soft, continental or proc cheese e.g. brie	EO	✓	1
130103	Cheddar, blue or other hard cheese and unspecified 'cheese'	EO	✓	1
130104	Quiche and cheese pies or pasties	EO	✓	1
130105	Other cheese dishes e.g. Welsh rarebit, cheese and biscuits	EO	✓	1
130201	Pizza - cheese and tomato, vegetable or unspecified 'pizza'	EO	✓	1
130202	Pizza - meat, fish or poultry	EO	✓	1
130301	Eggs - boiled or poached	EO	✓	1

130302	Eggs - scrambled, fried, omelettes or unspecified 'egg'	EO	✓	1
130303	Other egg dishes e.g. egg mayonnaise	EO	✓	1
140101	Chips and French fries - from fast food outlet e.g. McDonalds	EO	✓	1
140102	Chips - served with meal e.g. from restaurant or chip shop	EO	✓	1
140103	Potatoes - boiled or unspecified 'potato'	EO	✓	1
140104	Potatoes - mashed	EO	✓	1
140105	Potatoes - roast	EO	✓	1
140106	Sautéed potatoes, potato croquettes, hash browns etc.	EO	✓	1
140107	Baked or jacket potatoes - without filling	EO	✓	1
140108	Other potato dishes (e.g. wedges, potato salad) including unspecified	EO	✓	1
150101	Lettuce and cress	EO	✓	1
150102	Other green vegetables e.g. spinach, cabbage, sprouts	EO	✓	1
150201	Peppers - raw or cooked	EO	✓	1
150202	Courgettes, marrow, aubergine, pumpkin, plantain, cucumbers	EO	✓	1
150203	Peas and sweetcorn	EO	✓	1
150204	Baked beans and other beans (not green beans) and pulses	EO	✓	1
150205	Tomato - fresh or raw	EO	✓	1
150206	Tomato - cooked or processed	EO	✓	1
150301	Carrots	EO	✓	1
150302	Onions - raw, cooked or unspecified 'onions'	EO	✓	1
150303	Onions - fried	EO	✓	1
150304	Other root vegetables or tubers e.g. turnip, parsnip, radish, beetroot	EO	✓	1
150401	Mushrooms - raw or cooked	EO	✓	1
150501	Mixed vegetables or unspecified 'vegetable'	EO	✓	1
150502	Other vegetables e.g. artichoke, asparagus	EO	✓	1
150503	Veg in batter or breadcrumbs and deep fried vegetables e.g. onion rings	EO	✓	1
150504	Onion and other vegetable bhajis and pakora	EO	✓	1
150601	Veggie burger, bean burger, veggie sausage, nut roast	EO	✓	1
150602	Veg lasagne, cannelloni, moussaka & other oven baked veg dishes	EO	✓	1
150603	Stuffed vegetables (e.g. stuffed pepper) and vegetable based starter	EO	✓	1
150604	Vegetable based stews and casseroles and vegetable based pies	EO	✓	1
160101	Mixed salad, main course - without dressing	EO	✓	1
160102	Mixed salad, side dish - without dressing - including unspecified 'salad'	EO	✓	1
160103	Green salad - without dressing	EO	✓	1
160201	Vegetable or fruit and nut salad - with dressing	EO	✓	1
160202	Pasta, rice, mixed bean or cereal-based salads - with dressing	EO	✓	1
160301	Meat salad e.g. beef, lamb salads	EO	✓	1
160302	Chicken or turkey salad	EO	✓	1
160303	Fish salad e.g. tuna, salmon salads	EO	✓	1
160401	Cheese salad including ploughmans	EO	✓	1
160402	Egg salad	EO	✓	1
160501	Other salads e.g. Greek, Florida, Russian	EO	✓	1
160601	Salad buffet or buffet meal items not spec	EO	✓	1
170101	Fried rice and risotto	EO	✓	1
170102	All cooked rice excluding fried rice e.g. boiled, pilau, savoury	EO	✓	1
170103	Pasta - not filled and plain noodles (inc. pot noodle) – w/o sauce	EO	✓	1
170104	Pasta - filled e.g. ravioli, tortellini - w/o sauce	EO	✓	1
170105	Noodles with meat, vegetables etc.	EO	✓	1
180101	Meat & fish soups	EO	✓	1
180102	Vegetable based soups	EO	✓	1
180103	Chinese soups, consommé	EO	✓	1
180104	Other soups including unspecified 'soup'	EO	✓	1
190101	Muesli and oat crunch cereals	EO	✓	1
190102	Other high fibre breakfast cereals e.g. Allbran, Weetabix	EO	✓	1
190103	Sweetened breakfast cereals e.g. Frosties, Sugar Puffs	EO	✓	1
190104	Hot breakfast cereals e.g. porridge, Ready Brek	EO	✓	1
190105	Other break cereals / unspecified e.g. Cornflakes, Rice Krispies, Special K	EO	✓	1
200101	All citrus fruit, fresh e.g. orange, grapefruit	EO	✓	1
200102	Banana, fresh	EO	✓	1
200103	Apples, fresh	EO	✓	1
200104	Pears, fresh	EO	✓	1
200105	Stone fruit, fresh e.g. apricot, plum, peach, cherry, avocado	EO	✓	1
200106	Grapes, fresh	EO	✓	1
200107	Soft fruit or berries, fresh e.g. strawberries – w/o cream or ice cream	EO	✓	1
200108	Melon, fresh	EO	✓	1
200109	Pineapple, fresh	EO	✓	1
200110	Fresh fruit salad	EO	✓	1

200111	Other fresh fruit (kiwi, passion) and unspec	EO	✓	1
200112	Free school fruit	EO	✓	1
200201	Dried fruit e.g. sultanas, raisins	EO	✓	1
200301	Tinned, stewed, baked or processed fruit w/o cream or ice cream	EO	✓	1
210101	Yoghurt and fromage frais	EO	✓	1
220101	White bread, with or w/o butter or margarine (toasted or untoasted)	EO	✓	1
220102	Brown/w'meal bread, with or w/o butter or marg (toasted/untoasted)	EO	✓	1
220103	White rolls, baguettes etc. w/o butter/ margarine (or not spec.)	EO	✓	1
220104	Brown or w'meal rolls, baguettes w/o butter/marg (or not spec.)	EO	✓	1
220105	Garlic bread	EO	✓	1
220106	Croissant	EO	✓	1
220107	Continental breads e.g. pitta, ciabatta, focaccio	EO	✓	1
220108	Muffins, crumpets	EO	✓	1
220109	Fried bread, including croutons	EO	✓	1
220110	Other bread, rolls, toast, unspec 'bread' etc.	EO	✓	1
230101	Meat based sandwich on white bread/roll	EO	✓	1
230102	Meat based sandwich on brown bread/roll	EO	✓	1
230103	Meat based sandwich bread not specified	EO	✓	1
230104	Chicken/turkey s'wich on white bread/roll	EO	✓	1
230105	Chicken/ turkey s'wich on brown bread/ roll	EO	✓	1
230106	Chicken/ turkey s'wich bread not specified	EO	✓	1
230107	Bacon & egg based sandwich on white bread/roll inc McMuffin	EO	✓	1
230108	Bacon & egg sandwich - brown bread or roll	EO	✓	1
230109	Bacon & egg sandwich bread not specified	EO	✓	1
230110	Fish based sandwich on white bread or roll	EO	✓	1
230111	Fish based sandwich on brown bread or roll	EO	✓	1
230112	Fish based sandwich bread not specified	EO	✓	1
230201	Cheese sandwich on white bread or roll	EO	✓	1
230202	Cheese sandwich on brown bread or roll	EO	✓	1
230203	Cheese based sandwich bread not specified	EO	✓	1
230204	Egg based sandwich on white bread or roll inc. Egg McMuffin	EO	✓	1
230205	Egg based sandwich on brown bread or roll	EO	✓	1
230206	Egg based sandwich bread not specified	EO	✓	1
230207	Vegetarian sandwich on white bread or roll	EO	✓	1
230208	Vegetarian sandwich on brown bread or roll	EO	✓	1
230209	Vegetarian sandwich bread not specified	EO	✓	1
230210	Sweet-filled sandwich	EO	✓	1
230211	Unspecified sandwiches or rolls	EO	✓	1
240101	Cheese or cream based sauce e.g. carbonara, cauliflower cheese	EO	✓	1
240102	Meat-based sauce e.g. bolognese, chilli	EO	✓	1
240103	Fish or seafood based sauce	EO	✓	1
240104	Tomato based sauce cont veg inc ratatouille	EO	✓	1
240105	Other savoury sauce or unspecified 'sauce'	EO	✓	1
240106	Sweet sauce e.g. syrup, treacle, chocolate	EO	✓	1
240107	Fruit or vegetable based condiments	EO	✓	1
240108	Other condiments or sauces	EO	✓	1
240201	Salad dressings and dips	EO	✓	1
240202	Mayonnaise	EO	✓	1
240203	Coleslaw	EO	✓	1
240301	Fruit filling e.g. peaches for pancakes	EO	✓	1
240302	Vegetable filling	EO	✓	1
240303	Cheese filling inc cheddar / cottage cheese	EO	✓	1
240304	Fish based filling e.g. tuna mayonnaise	EO	✓	1
240401	Butter and margarine	EO	✓	1
240402	Jam, marmalade and honey	EO	✓	1
240403	Cream - single, double, sour etc.	EO	✓	1
240404	Custard	EO	✓	1
240405	Sugar (as an addition to tea, coffee etc.)	EO	✓	1
240501	Commercial baby food in a jar or can	EO	✓	1
240601	Yorkshire puddings and dumplings	EO	✓	1
240701	Unspec meal e.g. school meal / meal at work	EO	✓	1
250101	Coffee, black including espresso	EO	×	1
250102	Coffee, white including cappuccino, latte	EO	×	1
250103	Coffee, black or white not specified	EO	×	1
250104	Tea, white	EO	×	1
250105	Tea, black	EO	×	1
250106	Hot chocolate or cocoa, with milk or water	EO	✓	1

260201	Mineral water	EO	×	1
260202	Soft drink (incl carbonates and still) - low calorie	EO	×	1
260203	Soft drink (incl carbonates & still) - not low calorie /calories unspecified	EO	×	1
260204	Pure fruit juices	EO	×	1
260205	Vegetable juices e.g. tomato, carrot juice	EO	×	1
260206	Soft drink - pure juice or juice drink not spec	EO	×	1
260301	Milk as a drink	EO	✓	1
260302	Milk on cereal	EO	✓	1
260303	Milkshake and flavoured milk	EO	✓	1
260304	Free school milk	EO	✓	1
270101	Spirits	EO	×	1
270102	Liqueurs	EO	×	1
270103	Cocktails	EO	×	1
270104	Spirits or liqueurs with mixer e.g. gin & tonic, Bacardi & coke	EO	×	1
270201	Wine (not sparkling) including unspec 'wine'	EO	×	1
270202	Sparkling wines (e.g. Champagne) and wine with mixer (e.g. Bucks Fizz)	EO	×	1
270203	Fortified wine e.g. sherry, port, vermouth	EO	×	1
270204	Cider or perry - half pint or bottle	EO	×	1
270205	Cider or perry - pint / can / size not spec	EO	×	1
270206	Alcoholic soft drinks (alcopops), and ready-mixed bottled drinks	EO	×	1
270301	Bitter - half pint or bottle	EO	×	1
270302	Bitter - pint or can or size not specified	EO	×	1
270303	Lager or other beers - half pint or bottle	EO	×	1
270304	Lager or other beers - pint/can/size not spec	EO	×	1
270401	Round of drinks, alcohol specified	EO	×	1
280101	Solid, unfilled chocolate bars and sweets & unspecified chocolate	EO	✓	1
280102	Filled chocolate-coated bars and sweets e.g. Mars, Snickers, Minstrels	EO	✓	1
280103	Single chocolate (after dinner)	EO	✓	1
280104	Chewing gum and bubble gum	EO	✓	1
280105	Mints e.g. Polo, Extra Strong	EO	✓	1
280106	Boiled sweets, jellies and unspecified 'sweets' e.g. fruit gums	EO	✓	1
280107	Uncoated toffee or fudge e.g. Toffos, chocolate eclairs, caramels	EO	✓	1
280108	Pick 'n' mix, nougat, liquorice & other sweets	EO	✓	1
290101	Ice cream in a cone, cornet or wafer and ice cream desserts	EO	✓	1
290103	Ice cream scoop or tub including ice cream served with dessert	EO	✓	1
290104	Iced lollies and sorbets	EO	✓	1
290201	Doughnut	EO	✓	1
290202	Cream pastries e.g. choc eclairs, profiteroles	EO	✓	1
290203	Cream sponge or gateau (not chocolate)	EO	✓	1
290204	Rich chocolate cake or chocolate gateau	EO	✓	1
290205	Fruit and other pies or pastries	EO	✓	1
290206	Fruit cake	EO	✓	1
290207	Other sponge cakes or desserts (not cream)	EO	✓	1
290208	Custard desserts or sweet soufflé	EO	✓	1
290209	Meringue desserts including pavlova	EO	✓	1
290210	Cheesecake	EO	✓	1
290211	Fool, trifle and mousse desserts	EO	✓	1
290212	Jelly	EO	✓	1
290213	Milk and rice puddings inc tapioca, semolina	EO	✓	1
290214	Other cakes and desserts	EO	✓	1
290301	Waffles and pancakes	EO	✓	1
290401	Teacakes, scones, currant buns, iced buns	EO	✓	1
300101	Fully-coated chocolate biscuits or wafers	EO	✓	1
300102	Sweet biscuits including half-coated choc	EO	✓	1
300103	Cereal bars and cereal based cakes	EO	✓	1
300104	Savoury biscuits	EO	✓	1
310101	Nuts, nut products and seeds	EO	✓	1
310102	Potato crisps or savoury snacks	EO	✓	1
310103	Cornsnacks, based on maize	EO	✓	1
310104	Wheat based savoury snack	EO	✓	1
310201	Popcorn	EO	✓	1
310301	Other savoury snacks (inc hors d'oeuvres)	EO	✓	1

HH = Household; EO = Eaten Out

Key
Food - no factor required
Food - cooked edible weight factor

Appendix 4: Energy Density for Coding Frame

Food - dried weight factor & eggs
No nutritional information
Milk
Other energy containing NA drinks
No / low energy drinks
Alcohol

Appendix 5: Defra Food Codes with Recommended Estimates of Edible Food Waste

The following figures for estimated waste are from the Waste and Resource Action Programme Survey (WRAP) (2008). The incorporation of these figures in the estimation of food and nutrient intakes from the EFS were discussed in the Annex of the 2007 Family Food report (Department for Environment Food & Rural Affairs (Defra), 2008) and were mapped to the EFS food codes for this purpose by Defra (personal communication).

Defra Code	Description	Single Adult Waste	Multiple Adult Waste
402	UHT whole milk	0.1	0.1
403	Sterilised whole milk	0.1	0.1
404	Pasteurised or homogenised whole milk	0.1	0.1
501	School Milk	0.1	0.1
601	Welfare milk	0.1	0.1
901	Condensed or evaporated milk	0.1	0.1
1102	Infant or baby milks - ready to drink	0.1	0.1
1103	Infant or baby milks - dried	0.1	0.1
1201	Instant dried milk	0.1	0.1
1301	Yoghurt	0.1146	0.0802
1302	Fromage frais	0.1	0.1
1502	Fully skimmed milk	0.1	0.1
1503	Semi-skimmed milk	0.1	0.1
1603	Dairy desserts - not frozen	0.1	0.1
1605	Dried milk products	0.1	0.1
1606	Milk drinks & other milks (replaced 200405 onwards)	0.1	0.1
1607	Milk drinks & other milks	0.1	0.1
1608	Non-dairy milk substitutes	0.1	0.1
1701	Cream	0.1222	0.096
2201	Hard cheese - Cheddar type	0.0883	0.0829
2202	Hard cheese - Other UK or foreign equivalent	0.0883	0.0829
2203	Hard cheese - Edam or other foreign	0.0883	0.0829
2205	Cottage cheese	0.0883	0.0829
2206	Soft natural cheese	0.0883	0.0829
2301	Processed cheese	0.0883	0.0829
3102	Beef joints - on the bone	0.0815	0.0457
3103	Beef joints - boned	0.0815	0.0457
3104	Beef steak - less expensive	0.0815	0.0457
3105	Beef steak - more expensive	0.0815	0.0457
3106	Minced beef	0.0815	0.0457
3107	All other beef and veal	0.0815	0.0457
3601	Mutton	0.0224	0.0262
3602	Lamb joints	0.0224	0.0262
3603	Lamb chops	0.0224	0.0262
3604	All other lamb	0.0224	0.0262
4101	Pork joints	0.2041	0.133
4102	Pork chops	0.2041	0.133
4103	Pork fillets and steaks	0.2041	0.133
4104	All other pork	0.2041	0.133
4603	Ox liver	0.0815	0.0457
4604	Lambs liver	0.0224	0.0262
4605	Pigs liver	0.2041	0.133
4607	All other liver	0.0584	0.0401
5101	All offal other than liver	0.0584	0.0401
5502	Bacon and ham joints, uncooked	0.2041	0.133
5505	Bacon and ham rashers, uncooked	0.2041	0.133
5801	Ham and bacon	0.2041	0.133
5903	Cooked chicken and turkey	0.1855	0.0837
5904	Takeaway chicken	0.1855	0.0837

6201	Corned beef - canned or sliced	0.0815	0.0457
6601	Other cooked meat	0.0584	0.0401
7102	Other canned meat and canned meat products	0.0584	0.0401
7401	Chicken - whole or part	0.1855	0.0837
7703	Turkey - whole or part	0.1855	0.0837
7704	Poultry other than chicken or turkey	0.1855	0.0837
7801	Other fresh, chilled or frozen meat	0.0584	0.0401
7901	Sausages, uncooked - pork	0.0584	0.0401
8001	Sausages, uncooked - beef etc.	0.0584	0.0401
8302	Meat pies - ready to eat	0.2563	0.29
8303	Sausage rolls - ready to eat	0.2563	0.29
8401	Meat pies, pasties and puddings - frozen or not frozen	0.2563	0.29
8501	Burgers - frozen or not frozen	0.0584	0.0401
8901	Complete meat-based ready meals - frozen or not frozen	0.2563	0.29
8902	Other convenience meat products - frozen or not frozen	0.2563	0.29
9301	Pate	0.1324	0.0755
9302	Delicatessen type sausages	0.0584	0.0401
9403	Meat pastes and spreads	0.1324	0.0755
9501	Takeaway meat pies and pasties	0.2563	0.29
9502	Takeaway burger and bun	0.2563	0.29
9503	Takeaway kebabs	0.2563	0.29
9504	Takeaway sausages and saveloys	0.2563	0.29
9505	Takeaway meat based meals	0.2563	0.29
9506	Takeaway miscellaneous meats	0.2563	0.29
10201	White fish, fresh or chilled	0.096	0.0418
10202	White fish, frozen	0.096	0.0418
10601	Herrings and other blue fish, fresh or chilled	0.096	0.0418
10602	Herrings and other blue fish, frozen	0.096	0.0418
10701	Salmon, fresh or chilled	0.096	0.0418
10702	Salmon, frozen	0.096	0.0418
10801	Blue fish, dried or salted or smoked	0.096	0.0418
11401	White fish, dried or salted or smoked	0.096	0.0418
11702	Shellfish, fresh or chilled	0.2178	0.0621
11703	Shellfish, frozen	0.2178	0.0621
11801	Takeaway fish	0.096	0.0418
11901	Tinned salmon	0.096	0.0418
12001	Other tinned or bottled fish	0.096	0.0418
12103	Ready meals and other fish products - frozen or not frozen	0.2563	0.29
12304	Takeaway fish products	0.2563	0.29
12305	Takeaway fish based meals	0.2563	0.29
12901	Eggs	0.073	0.0463
13501	Butter	0.0386	0.0176
13801	Soft margarine	0.0386	0.0176
13802	Other margarine	0.0386	0.0176
13901	Lard, cooking fat	0.1267	0.091
14304	Olive Oil	0.1267	0.091
14305	Other vegetable and salad oils	0.1267	0.091
14802	Reduced fat spreads	0.0386	0.0176
14803	Low fat spreads	0.0386	0.0176
14805	Suet and dripping	0.0584	0.0401
14807	Imitation cream	0.1	0.1
15001	Sugar	0.1267	0.091
15101	Jams and fruit curds	0.1267	0.091
15201	Marmalade	0.1267	0.091
15301	Syrup, treacle	0.1267	0.091
15401	Honey	0.1267	0.091
15501	Potatoes - bought Jan-Aug, previous year’s crop	0.3718	0.2416
15502	Potatoes - bought Jan-Aug, this year’s crop	0.3718	0.2416
15503	Potatoes - bought Sep-Dec, current crop or new imported	0.3718	0.2416
15504	Fresh potatoes not specified elsewhere	0.3718	0.2416
15505	Fresh new potatoes	0.3718	0.2416

15506	Fresh baking potatoes	0.3718	0.2416
16201	Fresh cabbages	0.7014	0.4155
16301	Fresh brussels sprouts	0.1701	0.0794
16401	Fresh cauliflower	0.1449	0.1019
16701	Lettuce and leafy salads	0.5069	0.3519
16702	Prepared lettuce salads	0.6023	0.4633
16801	Fresh peas	0.0917	0.0417
16901	Fresh beans	0.5589	0.3071
17101	Other fresh green vegetables	0.2589	0.1589
17201	Fresh carrots	0.3835	0.1681
17301	Fresh turnips and swede	0.1231	0.0669
17401	Other fresh root vegetables	0.225	0.1511
17501	Fresh onions, leeks and shallots	0.2143	0.1408
17601	Fresh cucumbers	0.3717	0.2357
17701	Fresh mushrooms	0.1483	0.104
17801	Fresh tomatoes	0.1582	0.0926
18301	Fresh vegetable stew pack, stir-fry pack etc.	0.3429	0.2301
18302	Fresh stem vegetables	0.6075	0.453
18303	Fresh marrow, courgettes, aubergine, pumpkin and other vegetables	0.1691	0.1147
18304	Fresh herbs	0.1267	0.091
18401	Tomatoes, canned or bottled	0.1582	0.0926
18501	Peas, canned	0.0917	0.0417
18802	Baked beans in sauce	0.0828	0.0309
18803	Other canned beans and pulses	0.2589	0.1589
19101	Other canned vegetables	0.2589	0.1589
19201	Dried pulses, other than air-dried	0.2589	0.1589
19501	Air-dried vegetables	0.3429	0.2301
19602	Tomato puree and vegetable purees	0.1267	0.091
19603	Vegetable juices e.g. tomato juice, carrot juice	0.1	0.1
19702	Chips - frozen or not frozen	0.3718	0.2416
19703	Takeaway chips	0.3718	0.2416
19801	Instant potato	0.3718	0.2416
19901	Canned potatoes	0.3718	0.2416
20002	Crisps and potato snacks	0.1239	0.0809
20101	Other potato products - frozen or not frozen	0.3718	0.2416
20301	Peas, frozen	0.0917	0.0417
20401	Beans, frozen	0.5589	0.3071
20601	Ready meals and other vegetable products - frozen or not frozen	0.2563	0.29
20604	All vegetable takeaway products	0.2563	0.29
20801	Other frozen vegetables	0.2589	0.1589
21001	Fresh oranges	0.3382	0.2325
21401	Other fresh citrus fruits	0.0536	0.041
21701	Fresh apples	0.6627	0.2772
21801	Fresh pears	0.1442	0.1929
22101	Fresh stone fruit	0.2036	0.1797
22201	Fresh grapes	0.0833	0.0778
22701	Other fresh soft fruit	0.433	0.2521
22801	Fresh bananas	0.1545	0.082
22901	Fresh melons	0.2848	0.1797
23101	Other fresh fruit	0.1404	0.0938
23301	Tinned peaches, pears and pineapples	0.0806	0.0899
23601	All other tinned or bottled fruit	0.0806	0.0899
24001	Dried fruit	0.0806	0.0899
24101	Frozen strawberries, apple slices, peach halves, oranges and other frozen fruits	0.0806	0.0899
24502	Nuts & edible seeds	0.0228	0.043
24503	Peanut butter	0.0228	0.043
24801	Pure fruit juices	0.1	0.1
25102	White bread, standard, unsliced	0.3335	0.2399
25202	White bread, standard, sliced	0.3335	0.2399
25701	White bread, premium, sliced and unsliced	0.3335	0.2399

25801	White bread, soft grain, sliced and unsliced	0.3335	0.2399
25901	Brown bread, sliced and unsliced	0.3335	0.2399
26001	Wholemeal and granary bread, sliced and unsliced	0.3335	0.2399
26302	Rolls - white, brown or wholemeal	0.3942	0.1718
26303	Malt bread and fruit loaves	0.0861	0.0241
26304	Vienna and French bread	0.3942	0.1718
26305	Starch reduced bread and rolls	0.3335	0.2399
26308	Other breads	0.3349	0.4585
26309	Sandwiches	0.2563	0.29
26310	Sandwiches from takeaway	0.2563	0.29
26311	Takeaway breads	0.3349	0.4585
26401	Flour	0.0677	0.0641
26701	Buns, scones and teacakes	0.1239	0.1163
27001	Cakes and pastries, not frozen	0.2802	0.1703
27002	Takeaway pastries	0.2802	0.1703
27101	Crisp bread	0.0539	0.0438
27402	Sweet biscuits (not chocolate) and cereal bars	0.0539	0.0438
27403	Cream crackers and other unsweetened biscuits	0.0539	0.0438
27702	Chocolate biscuits	0.0539	0.0438
28101	Oatmeal and oat products	0.0275	0.0224
28202	Muesli	0.0275	0.0224
28203	High fibre breakfast cereals	0.0275	0.0224
28204	Sweetened breakfast cereals	0.0275	0.0224
28205	Other breakfast cereals	0.0275	0.0224
28502	Canned or fresh carton custard	0.0638	0.0283
28503	All canned milk puddings	0.0638	0.0283
28601	Puddings	0.0638	0.0283
28702	Dried rice	0.2335	0.1402
28703	Cooked rice	0.2335	0.1402
28704	Takeaway rice	0.2335	0.1402
29001	Invalid foods, slimming foods and sports foods	0.0448	0.0656
29101	Infant cereal foods	0.1	0.1
29402	Cakes and pastries - frozen	0.2802	0.1703
29501	Canned pasta	0.2563	0.29
29502	Dried and fresh pasta	0.1848	0.1595
29503	Takeaway pasta and noodles	0.2563	0.29
29601	Pizzas - frozen and not frozen	0.2563	0.29
29602	Takeaway pizza	0.2563	0.29
29907	Cake, pudding and dessert mixes	0.298	0.4353
29909	Cereal snacks	0.0275	0.0224
29915	Quiches and flans - frozen and not frozen	0.2563	0.29
29916	Takeaway crisps, savoury snacks, popcorn, poppadums, prawn crackers	0.1239	0.0809
29919	Other cereal foods - frozen and not frozen	0.0275	0.0224
30101	Other cereals	0	0
30401	Tea	0.1	0.1
30701	Coffee beans and ground coffee	0.1	0.1
30801	Instant coffee	0.1	0.1
30901	Coffee essences	0.1	0.1
31001	Tea and coffee from takeaway	0.1	0.1
31201	Cocoa and chocolate drinks	0.0448	0.0656
31301	Malt drinks and chocolate versions of malted drinks	0.0448	0.0656
31401	Mineral or spring waters	0.1	0.1
31501	Baby foods	0.1	0.1
31801	Soups - canned or cartons	0.2563	0.29
31901	Soups - dehydrated or powdered	0.0448	0.0656
32001	Soups - from takeaway	0.2563	0.29
32101	Other takeaway food brought home	0.2563	0.29

32201	Meals on wheels - items not specified	0.2563	0.29
32302	Salad dressings	0.1267	0.091
32303	Other spreads and dressings	0.1267	0.091
32702	Pickles	0.1267	0.091
32703	Sauces	0.1267	0.091
32704	Takeaway sauces and mayonnaise	0.1267	0.091
32801	Stock cubes and meat and yeast extracts	0.298	0.4353
32901	Jelly squares or crystals	0.0638	0.0283
33203	Ice cream tub or block	0.0638	0.0283
33302	Ice cream cornets, choc-ices, lollies with ice cream	0.0638	0.0283
33303	Ice lollies, sorbet, frozen mousse, frozen yoghurt	0.0638	0.0283
33304	Takeaway ice cream, ice cream products, milkshakes	0.0638	0.0283
33401	Salt	0.1267	0.091
33501	Artificial sweeteners	0.1267	0.091
33602	Vinegar	0.1267	0.091
33603	Spices and dried herbs	0.1267	0.091
33604	Bisto, gravy granules, stuffing mix, baking powder, yeast	0.298	0.4353
33605	Wine and beer making kits	0.1	0.1
33606	Fruit teas, instant tea, herbal tea, rosehip tea	0.1	0.1
33607	Payment for food, type not specified	0.1	0.1
33901	Soya and novel protein foods	0.2589	0.1589
34001	Soft drinks, concentrated, not low calorie	0.1	0.1
34101	Soft drinks, not concentrated, not low calorie	0.1	0.1
34301	Soft drinks, concentrated, low calorie	0.1	0.1
34401	Soft drinks, not concentrated, low calorie	0.1	0.1
35001	Chocolate bars - solid	0.0958	0.0575
35101	Chocolate bars - filled	0.0958	0.0575
35202	Chewing gum	0.1239	0.0809
35301	Mints	0.0958	0.0575
35302	Boiled sweets	0.0958	0.0575
35401	Fudges, toffees, caramels	0.0958	0.0575
35501	Takeaway confectionery	0.0958	0.0575
38102	Beers	0.1	0.1
38202	Lagers and continental beers	0.1	0.1
38302	Ciders and perry	0.1	0.1
38402	Champagne, sparkling wines and wine with mixer	0.1	0.1
38403	Table wine	0.1	0.1
38501	Spirits with mixer	0.1	0.1
38601	Fortified wines	0.1	0.1
38701	Spirits	0.1	0.1
38801	Liqueurs and cocktails	0.1	0.1
38901	Alcopops	0.1	0.1
100101	Meat or fish based curry with sauce	0	0
100102	Meat or fish based curry without sauce	0	0
100103	Vegetable or fruit based curry	0	0
100104	Dhal and dhal dishes	0	0
100105	Samosas	0	0
100106	Other Indian dishes	0	0
100107	Indian breads	0	0
100108	Indian buffet or shared meal or unspecified Indian meal	0	0
100201	Chinese or Thai meat or fish based dishes excluding curry	0	0
100202	Chop suey and fu yung dishes	0	0
100203	Chinese or Thai vegetable based main course dishes excluding curry	0	0
100204	Chinese or Thai curry	0	0
100205	Spring rolls	0	0
100206	Other Chinese or Thai dishes	0	0
100207	Chinese or Thai buffet or shared meal or unspecified Chinese or Thai meal	0	0

100301	All other ethnic meals	0	0
110101	Steak - without sauce e.g. braised, sirloin	0	0
110102	Roast meat with sauce or gravy	0	0
110103	Pork chops with sauce or gravy	0	0
110104	Lamb chops with sauce or gravy	0	0
110105	Spare ribs	0	0
110106	Bacon	0	0
110107	Gammon or ham	0	0
110108	All offal including liver, kidney, tongue	0	0
110201	Chicken or turkey with sauce or gravy	0	0
110202	Chicken or turkey in breadcrumbs or batter	0	0
110203	Duck with sauce or gravy	0	0
110204	Game with sauce or gravy	0	0
110301	Small or single burgers	0	0
110302	Large or double burgers	0	0
110303	Chicken burger	0	0
110401	Kebabs - all types including chicken	0	0
110402	Plain sausages e.g. beef, pork	0	0
110403	Other sausages	0	0
110404	Hot dogs and sausage sandwiches	0	0
110501	Meat pies (pastry topped) and pasties	0	0
110502	Meat pies (potato topped e.g. shepherd's pie)	0	0
110503	Sausage roll (pastry)	0	0
110601	Meat and vegetable stews, casseroles or hotpots	0	0
110602	Chicken or turkey stews, casseroles or hotpots	0	0
110603	Meat lasagne, cannelloni, moussaka and other meat-based oven baked dishes	0	0
110701	All pates	0	0
110801	Other meat products or dishes	0	0
120101	White fish - grilled, steamed, baked or boiled - without sauce	0	0
120102	White fish - fried (incl. in batter/breadcrumbs) - without sauce	0	0
120201	Trout, tuna and salmon only - fresh - without sauce or dressing	0	0
120202	Other fatty fish - without sauce or dressing e.g. herring, mackerel, sardines	0	0
120301	Shellfish - without sauce or dressing e.g. prawns, shrimps, oysters, crab	0	0
120401	Kippers and other smoked fish e.g. smoked salmon	0	0
120501	Other fish products and unspecified 'fish' e.g. squid, sushi, crabsticks	0	0
120601	Fish, processed, in breadcrumbs (fish fingers, fish cakes, scampi) - without sauce or dressing	0	0
120602	Fish burgers (in bun)	0	0
120603	Fish based pie or other dish e.g. paella, kedgeree, tuna pasta bake	0	0
130101	Cottage cheese including with pineapple	0	0
130102	Soft, continental or processed cheese e.g. brie	0	0
130103	Cheddar, blue or other hard cheese and unspecified 'cheese'	0	0
130104	Quiche and cheese pies or pasties	0	0
130105	Other cheese dishes e.g. Welsh rarebit, cheese and biscuits	0	0
130201	Pizza - cheese and tomato, vegetable or unspecified 'pizza'	0	0
130202	Pizza - meat, fish or poultry	0	0
130301	Eggs - boiled or poached	0	0
130302	Eggs - scrambled, fried, omelettes or unspecified 'egg'	0	0
130303	Other egg dishes e.g. egg mayonnaise	0	0
140101	Chips and French fries - from fast food outlet e.g. McDonalds	0	0
140102	Chips - served with meal e.g. from restaurant or chip shop	0	0
140103	Potatoes - boiled or unspecified 'potato'	0	0
140104	Potatoes - mashed	0	0
140105	Potatoes - roast	0	0
140106	Sautéed potatoes, potato croquettes, hash browns etc.	0	0

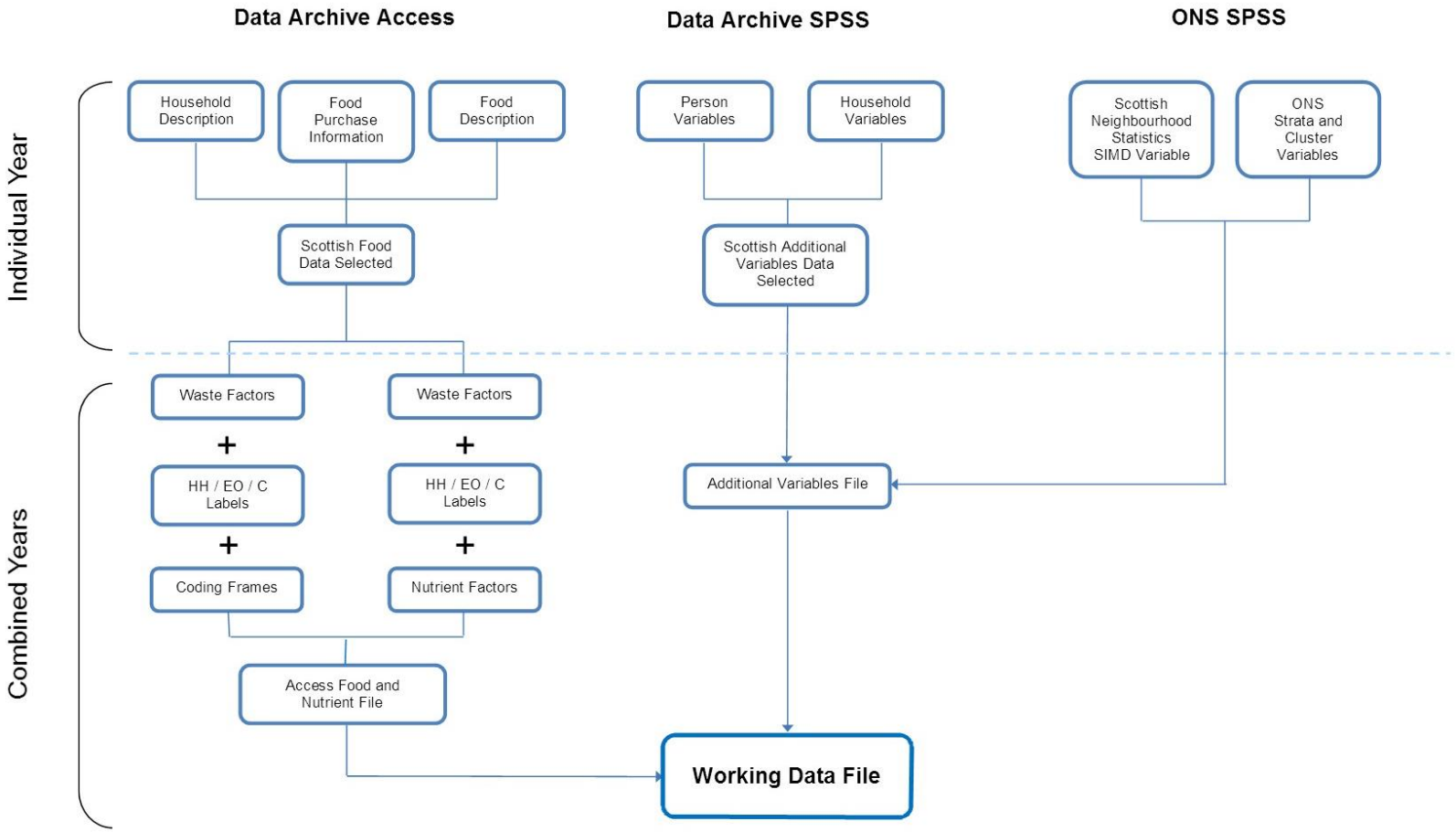
140107	Baked or jacket potatoes - without filling	0	0
140108	Other potato dishes (e.g. wedges, potato salad) including unspecified 'potato dish'	0	0
150101	Lettuce and cress	0	0
150102	Other green vegetables e.g. spinach, cabbage, sprouts	0	0
150201	Peppers - raw or cooked	0	0
150202	Courgettes, marrow, aubergine, pumpkin, plantain, cucumbers	0	0
150203	Peas and sweetcorn	0	0
150204	Baked beans and other beans (not green beans) and pulses	0	0
150205	Tomato - fresh or raw	0	0
150206	Tomato - cooked or processed	0	0
150301	Carrots	0	0
150302	Onions - raw, cooked or unspecified 'onions'	0	0
150303	Onions - fried	0	0
150304	Other root vegetables or tubers e.g. turnip, parsnip, radish, beetroot	0	0
150401	Mushrooms - raw or cooked	0	0
150501	Mixed vegetables or unspecified 'vegetable'	0	0
150502	Other vegetables e.g. artichoke, asparagus	0	0
150503	Vegetables in batter or breadcrumbs and deep fried vegetables e.g. onion rings	0	0
150504	Onion and other vegetable bhajis and pakora	0	0
150601	Veggie burger, bean burger, veggie sausage, nut roast	0	0
150602	Vegetable lasagne, vegetable cannelloni, vegetable moussaka and other oven baked vegetable based dishes	0	0
150603	Stuffed vegetables (e.g. stuffed pepper) and vegetable based starter	0	0
150604	Vegetable based stews and casseroles and vegetable based pies	0	0
160101	Mixed salad, main course - without dressing	0	0
160102	Mixed salad, side dish - without dressing - including unspecified 'salad'	0	0
160103	Green salad - without dressing	0	0
160201	Vegetable or fruit and nut salad - with dressing	0	0
160202	Pasta, rice, mixed bean or cereal-based salads - with dressing	0	0
160301	Meat salad e.g. beef, lamb salads	0	0
160302	Chicken or turkey salad	0	0
160303	Fish salad e.g. tuna, salmon salads	0	0
160401	Cheese salad including ploughman’s	0	0
160402	Egg salad	0	0
160501	Other salads e.g. Greek, Florida, Russian	0	0
160601	Salad buffet or buffet meal where items not specified	0	0
170101	Fried rice and risotto	0	0
170102	All cooked rice excluding fried rice e.g. boiled, pilau, savoury	0	0
170103	Pasta - not filled and plain noodles (including pot noodle) - without sauce	0	0
170104	Pasta - filled e.g. ravioli, tortellini - without sauce	0	0
170105	Noodles with meat, vegetables etc.	0	0
180101	Meat & fish soups	0	0
180102	Vegetable based soups	0	0
180103	Chinese soups, consommé (meat, fish or veg)	0	0
180104	Other soups including unspecified 'soup'	0	0
190101	Muesli and oat crunch cereals	0	0
190102	Other high fibre breakfast cereals e.g. Allbran, Weetabix	0	0
190103	Sweetened breakfast cereals e.g. Frosties, Sugar Puffs	0	0
190104	Hot breakfast cereals e.g. porridge, Ready Brek	0	0
190105	Other breakfast cereals and unspecified 'cereal' e.g. Cornflakes, Rice Krispies, Special K	0	0
200101	All citrus fruit, fresh e.g. orange, grapefruit	0	0
200102	Banana, fresh	0	0
200103	Apples, fresh	0	0
200104	Pears, fresh	0	0

200105	Stone fruit, fresh e.g. apricot, plum, peach, cherry, avocado	0	0
200106	Grapes, fresh	0	0
200107	Soft fruit or berries, fresh e.g. strawberries, blackberries - without cream or ice cream	0	0
200108	Melon, fresh	0	0
200109	Pineapple, fresh	0	0
200110	Fresh fruit salad - without cream or ice cream	0	0
200111	Other fresh fruit (kiwi, passion) and unspecified 'fruit'	0	0
200112	Free school fruit	0	0
200201	Dried fruit e.g. sultanas, raisins	0	0
200301	Tinned, stewed, baked or processed fruit - without cream or ice cream	0	0
210101	Yoghurt and fromage frais	0	0
220101	White bread, with or without butter or margarine (toasted or untoasted)	0	0
220102	Brown or wholemeal bread, with or without butter or margarine (toasted or untoasted)	0	0
220103	White rolls, baguettes etc. without butter or margarine (or butter or margarine not specified)	0	0
220104	Brown or wholemeal rolls, baguettes etc. without butter or margarine (or butter or margarine not specified)	0	0
220105	Garlic bread	0	0
220106	Croissant	0	0
220107	Continental breads e.g. pitta, ciabatta, focaccia	0	0
220108	Muffins, crumpets	0	0
220109	Fried bread, including croutons	0	0
220110	Other bread, rolls, toast, unspecified 'bread' etc.	0	0
230101	Meat based sandwich on white bread or roll	0	0
230102	Meat based sandwich on brown bread or roll	0	0
230103	Meat based sandwich bread not specified	0	0
230104	Chicken or turkey based sandwich on white bread or roll	0	0
230105	Chicken or turkey based sandwich on brown bread or roll	0	0
230106	Chicken or turkey based sandwich bread not specified	0	0
230107	Bacon and egg based sandwich on white bread or roll including Bacon and Egg McMuffin	0	0
230108	Bacon and egg based sandwich on brown bread or roll	0	0
230109	Bacon and egg based sandwich bread not specified	0	0
230110	Fish based sandwich on white bread or roll	0	0
230111	Fish based sandwich on brown bread or roll	0	0
230112	Fish based sandwich bread not specified	0	0
230201	Cheese based sandwich on white bread or roll	0	0
230202	Cheese based sandwich on brown bread or roll	0	0
230203	Cheese based sandwich bread not specified	0	0
230204	Egg based sandwich on white bread or roll including Egg McMuffin	0	0
230205	Egg based sandwich on brown bread or roll	0	0
230206	Egg based sandwich bread not specified	0	0
230207	Vegetarian based sandwich on white bread or roll	0	0
230208	Vegetarian based sandwich on brown bread or roll	0	0
230209	Vegetarian based sandwich bread not specified	0	0
230210	Sweet-filled sandwich	0	0
230211	Unspecified sandwiches or rolls	0	0
240101	Cheese or cream based sauce e.g. carbonara, cauliflower cheese	0	0
240102	Meat-based sauce e.g. Bolognese, chilli con carne	0	0
240103	Fish or seafood based sauce	0	0
240104	Tomato based sauce containing vegetables including ratatouille	0	0
240105	Other savoury sauce or unspecified 'sauce'	0	0
240106	Sweet sauce e.g. syrup, treacle, chocolate sauce	0	0
240107	Fruit or vegetable based condiments	0	0
240108	Other condiments or sauces	0	0

240201	Salad dressings and dips	0	0
240202	Mayonnaise	0	0
240203	Coleslaw	0	0
240301	Fruit filling e.g. peaches for pancakes	0	0
240302	Vegetable filling	0	0
240303	Cheese filling including cheddar cheese, cottage cheese	0	0
240304	Fish based filling e.g. tuna mayonnaise	0	0
240401	Butter and margarine	0	0
240402	Jam, marmalade and honey	0	0
240403	Cream - single, double, sour etc.	0	0
240404	Custard	0	0
240405	Sugar (as an addition to tea, coffee etc.)	0	0
240501	Commercial baby food in a jar or can	0	0
240601	Yorkshire puddings and dumplings	0	0
240701	Unspecified meal e.g. 'meal', 'school meal' or 'meal at work'	0	0
250101	Coffee, black including espresso	0	0
250102	Coffee, white including cappuccino, latte	0	0
250103	Coffee, black or white not specified	0	0
250104	Tea, white (including black or white not specified)	0	0
250105	Tea, black including Chinese tea, herbal tea, fruit tea	0	0
250106	Hot chocolate or cocoa, with milk or water	0	0
260201	Mineral water	0	0
260202	Soft drink (incl. carbonates and still) - low calorie	0	0
260203	Soft drink (incl. carbonates & still) - not low calorie (including drinks where calorie content unspecified)	0	0
260204	Pure fruit juices	0	0
260205	Vegetable juices e.g. tomato juice, carrot juice	0	0
260206	Soft drink where pure juice or juice drink not specified	0	0
260301	Milk as a drink	0	0
260302	Milk on cereal	0	0
260303	Milkshake and flavoured milk	0	0
260304	Free school milk	0	0
270101	Spirits	0	0
270102	Liqueurs	0	0
270103	Cocktails	0	0
270104	Spirits or liqueurs with mixer e.g. gin & tonic, Bacardi & coke	0	0
270201	Wine (not sparkling) including unspecified 'wine'	0	0
270202	Sparkling wines (e.g. Champagne) and wine with mixer (e.g. Bucks Fizz)	0	0
270203	Fortified wine e.g. sherry, port, vermouth	0	0
270204	Cider or perry - half pint or bottle	0	0
270205	Cider or perry - pint or can or size not specified	0	0
270206	Alcoholic soft drinks (alcopops), and ready-mixed bottled drinks	0	0
270301	Bitter - half pint or bottle	0	0
270302	Bitter - pint or can or size not specified	0	0
270303	Lager or other beers including unspecified 'beer' - half pint or bottle	0	0
270304	Lager or other beers including unspecified 'beer' - pint or can or size not specified	0	0
270401	Round of drinks, alcohol not otherwise specified	0	0
280101	Solid, unfilled chocolate bars and sweets and unspecified 'chocolate'	0	0
280102	Filled chocolate-coated bars and sweets e.g. Mars, Snickers, Minstrels	0	0
280103	Single chocolate (after dinner)	0	0
280104	Chewing gum and bubble gum	0	0
280105	Mints e.g. Polo, Extra Strong	0	0
280106	Boiled sweets, jellies and unspecified 'sweets' e.g. fruit gums	0	0
280107	Uncoated toffee or fudge, uncoated e.g. Toffos, chocolate éclairs, caramels	0	0
280108	Pick 'n' mix, nougat, liquorice and other sweets	0	0

290101	Ice cream in a cone, cornet or wafer and ice cream desserts	0	0
290103	Ice cream scoop or tub including ice cream served with dessert	0	0
290104	Iced lollies and sorbets	0	0
290201	Doughnut	0	0
290202	Cream pastries e.g. chocolate éclairs, profiteroles	0	0
290203	Cream sponge or gateau (not chocolate) e.g. Victoria sandwich	0	0
290204	Rich chocolate cake or chocolate gateau e.g. Death by Chocolate	0	0
290205	Fruit and other pies or pastries	0	0
290206	Fruit cake	0	0
290207	Other sponge cakes or desserts (not cream cakes)	0	0
290208	Custard desserts or sweet soufflé	0	0
290209	Meringue desserts including pavlova	0	0
290210	Cheesecake	0	0
290211	Fool, trifle and mousse desserts	0	0
290212	Jelly	0	0
290213	Milk and rice puddings including tapioca, semolina	0	0
290214	Other cakes and desserts, unspecified 'cake' or 'dessert'	0	0
290301	Waffles and pancakes	0	0
290401	Teacakes, scones, currant buns, iced buns	0	0
300101	Fully-coated chocolate biscuits or wafers	0	0
300102	Sweet biscuits including half-coated chocolate biscuits	0	0
300103	Cereal bars and cereal based cakes	0	0
300104	Savoury biscuits	0	0
310101	Nuts, nut products and seeds	0	0
310102	Potato crisps or snacks including unspecified 'crisps', prawn crackers	0	0
310103	Corn snacks, based on maize	0	0
310104	Wheat based savoury snack	0	0
310201	Popcorn	0	0
310301	Other savoury snacks (including hors d'oeuvres)	0	0

Appendix 6: Flowchart of Data Handling Process



Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Consumption of Scottish Dietary Goal Foods by SIMD Quintile, 2001 to 2003 Combined

EFS data (g/person/day with the exception of fish g/person/week)

Food	Scottish Dietary Goal	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII 95% CI	RII 95%CI
Fruit and Vegetables[1, 2]	400g per day	184	221	274	291	317	***<0.001***	167	0.65
		167, 202	205, 236	250, 297	268, 315	292, 342		132, 202	0.51, 0.79
Fruit[1]		84.3	104	144	161	176	***<0.001***	119	0.90
		72.8, 95.7	94.4, 113	128, 159	143, 178	157, 194		95.5, 143	0.72, 1.07
Vegetables[2]		100	117	130	131	141	***<0.001***	47.7	0.39
		90.7, 109	108, 126	118, 142	120, 141	131, 151		31.4, 63.9	0.25, 0.52
Oil-rich Fish	88g per week	20.6	27.2	32.5	33.7	43.6	***<0.001***	25.4	0.81
		15.2, 26.1	17.6, 36.8	24.9, 40.0	24.5, 42.9	33.9, 53.2		12.8, 38.1	0.41, 1.22
Total Red Meat[3]	70g per day	70.3	65.4	69.1	60.3	60.5	***0.002***	-12.2	-0.19
		65.4, 75.2	60.9, 69.8	63.4, 74.7	55.3, 65.2	55.7, 65.3		-19.5, -4.9	-0.30, -0.08
n Households		*366*	*383*	*351*	*352*	*298*		*1750*	*1750*
n People		*810*	*838*	*793*	*841*	*740*		*4022*	*4022*
n People Weighted[4]		*3044*	*3075*	*2913*	*3140*	*2764*		*14935*	*14935*

Household and eating out consumption combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]Fruit includes fruit and vegetable juice; [2]Vegetables include baked beans; [3]Meat portion only – see appendices 1 & 3 for methodology; [4]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Consumption of Scottish Dietary Goal Foods by SIMD Quintile, 2004 to 2006 Combined

EFS data (g/person/day with the exception of fish g/person/week)

Food	**Scottish Dietary Goal**	**SIMD Quintile 1*** Mean 95% CI	**SIMD Quintile 2** Mean 95% CI	**SIMD Quintile 3** Mean 95% CI	**SIMD Quintile 4** Mean 95% CI	**SIMD Quintile 5*** Mean 95% CI	***P-value for Linear Association***	**SII** 95% CI	**RII** 95%CI
Fruit and Vegetables[1, 2]	400g per day	209	245	264	310	332	***<0.001***	157	0.57
		187, 232	221, 268	239, 288	285, 336	311, 352		124, 190	0.45, 0.69
Fruit[1]		102	128	139	173	183	***<0.001***	104	0.71
		86.9, 117	113, 142	125, 152	157, 189	167, 198		81.9, 126	0.56, 0.86
Vegetables[2]		107	117	125	137	149	***<0.001***	52.9	0.41
		97.0, 118	106, 129	112, 138	123, 150	135, 163		34.1, 71.8	0.27, 0.56
Oil Rich Fish	88g per week	26.2	32.4	29.2	49.7	51.3	***<0.001***	34.2	0.89
		15.5, 36.8	23.6, 41.1	20.5, 38.0	20.4, 79.0	42.9, 59.7		19.0, 49.4	0.49, 1.28
Total Red Meat[3]	70g per day	66.7	64.9	59.9	60.6	55.4	***0.003***	-13.9	-0.23
		60.8, 72.6	57.7, 72.1	54.7, 65.1	55.3, 65.9	51.2, 59.7		-22.8, -5.1	-0.37, -0.08
n Households		*336*	*346*	*345*	*310*	*394*		*1731*	*1731*
n People		*744*	*761*	*755*	*703*	*1012*		*3975*	*3975*
n People Weighted[4]		*2740*	*2776*	*2855*	*2668*	*3738*		*14776*	*14776*

Household and eating out consumption combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results

[1]Fruit includes fruit and vegetable juice; [2]Vegetables include baked beans; [3]Meat portion only – see appendices 1 & 3 for methodology; [4]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Consumption of Scottish Dietary Goal Foods by SIMD Quintile, 2007 to 2009 Combined

LCFS data (g/person/day with the exception of fish g/person/week)

Food	**Scottish Dietary Goal**	**SIMD Quintile 1*** Mean 95% CI	**SIMD Quintile 2** Mean 95% CI	**SIMD Quintile 3** Mean 95% CI	**SIMD Quintile 4** Mean 95% CI	**SIMD Quintile 5*** Mean 95% CI	***P-value for Linear Association***	**SII** 95% CI	**RII** 95%CI
Fruit and Vegetables[1, 2]	400g per day	200	260	284	298	348	***<0.001***	166	0.58
		177, 223	231, 288	261, 306	264, 332	326, 369		128, 204	0.45, 0.72
Fruit[1]		103	133	154	159	200	***<0.001***	112	0.72
		86.3, 120	116, 149	134, 174	133, 185	186, 215		85.3, 138	0.55, 0.90
Vegetables[2]		97.0	127	129	139	148	***<0.001***	54.3	0.42
		85.3, 109	112, 142	115, 144	125, 153	137, 159		35.2, 73.3	0.27, 0.56
Oil Rich Fish	88g per week	20.8	25.2	32.0	37.9	39.9	***<0.001***	25.1	0.78
		13.0, 28.6	21.8, 28.6	24.4, 39.5	28.4, 47.5	31.2, 48.7		13.7, 36.5	0.43, 1.14
Total Red Meat[3]	70g per day	63.7	64.9	60.3	62.4	57.0	*0.117*	-8.6	-0.14
		56.8, 70.6	58.9, 70.9	55.4, 65.2	53.5, 71.3	52.0, 62.0		-19.3, 2.1	-0.31, 0.03
n Households		*270*	*309*	*303*	*301*	*354*		*1537*	*1537*
n People		*540*	*658*	*656*	*665*	*852*		*3371*	*3371*
n People Weighted[4]		*2495*	*2974*	*2948*	*3057*	*3882*		*15356*	*15356*

Household and eating out consumption combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]Fruit includes fruit and vegetable juice; [2]Vegetables include baked beans; [3]Meat portion only – see appendices 1 & 3 for methodology; [4]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Intake of Scottish Dietary Goal Nutrients by SIMD, 2001 to 2003 Combined

EFS data (units/person/day)

	Scottish Dietary Goal	**SIMD Quintile 1*** Mean 95% CI	**SIMD Quintile 2** Mean 95% CI	**SIMD Quintile 3** Mean 95% CI	**SIMD Quintile 4** Mean 95% CI	**SIMD Quintile 5*** Mean 95% CI	***P-value for Linear Association***	**SII** 95% CI	**RII** 95%CI
Energy Density kcal/100g	125kcal/100g	175	173	172	167	167	***<0.001***	-11.4	0.65
		171, 179	169, 177	167, 176	163, 170	163, 171		-17.3, -5.6	0.51, 0.79
% Food Energy - Fat	≤35%	39.0	38.6	38.9	38.5	39.0	*0.784*	-0.2	-0.01
		38.4, 39.7	37.9, 39.4	38.0, 39.9	37.5, 39.4	38.0, 40.0		-1.4, 1.1	-0.04, 0.03
% Food Energy - Saturated Fat	≤11%	15.5	15.5	15.8	15.4	15.6	*0.757*	0.1	0.01
		15.2, 15.7	15.1, 15.9	15.4, 16.2	15.0, 15.8	15.1, 16.1		-0.4, 0.6	-0.03, 0.04
% Food Energy - NMES	Adults - No ↑ Children - <10%	16.4	16.2	15.9	15.5	14.2	***<0.001***	-2.4	-0.15
		15.6, 17.3	15.5, 16.9	14.8, 17.0	14.8, 16.3	13.4, 14.9		-3.7, -1.1	-0.24, -0.07
NSP g	18g/day	11.2	12.0	12.4	12.8	13.2	***<0.001***	2.4	0.20
		10.5, 11.9	11.5, 12.5	11.9, 13.0	12.1, 13.4	12.6, 13.8		1.3, 3.5	0.11, 0.28
Food Energy - MJ		8.6	8.5	8.9	8.5	8.6	*0.924*	0.0	0.00
		8.1, 9.1	8.2, 8.9	8.5, 9.3	8.1, 8.8	8.3, 9.0		-0.7, 0.6	-0.08, 0.07
Food Energy - kcal		2052	2034	2111	2015	2055	*0.922*	-7.2	0.00
		1935, 2169	1955, 2113	2019, 2203	1930, 2100	1974, 2135		-163, 148	-0.08, 0.07
n Households		*366*	*383*	*351*	*352*	*298*		*1750*	*1750*
n People		*810*	*838*	*793*	*841*	*740*		*4022*	*4022*
n People Weighted[1]		*3044*	*3075*	*2913*	*3140*	*2764*		*14935*	14935

Household and eating out intakes combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Intake of Scottish Dietary Goal Nutrients by SIMD, 2004 to 2006 Combined

EFS data (units/person/day)

	Scottish Dietary Goal	**SIMD Quintile 1*** Mean 95% CI	**SIMD Quintile 2** Mean 95% CI	**SIMD Quintile 3** Mean 95% CI	**SIMD Quintile 4** Mean 95% CI	**SIMD Quintile 5*** Mean 95% CI	***P-value for Linear Association***	**SII** 95% CI	**RII** 95%CI
Energy Density kcal/100g	125kcal/100g	175	174	173	167	163	***<0.001***	-16.0	0.57
		171, 179	170, 179	167, 178	163, 171	159, 168		-22.6, -9.4	0.45, 0.69
% Food Energy - Fat	≤35%	38.9	39.0	38.7	38.6	38.5	*0.285*	-0.6	-0.02
		38.0, 39.8	38.1, 39.8	37.5, 39.8	37.7, 39.4	37.8, 39.1		-1.8, 0.5	-0.05, 0.01
% Food Energy - Saturated Fat	≤11%	15.3	15.6	15.5	15.7	15.4	*0.584*	0.2	0.01
		14.9, 15.7	15.2, 16.0	14.9, 16.0	15.4, 16.1	15.0, 15.9		-0.5, 0.9	-0.03, 0.06
% Food Energy - NMES	Adults - No ↑ Children - <10%	16.3	15.2	15.7	15.1	14.2	***0.007***	-2.2	-0.14
		15.1, 17.5	14.5, 15.8	14.9, 16.5	14.3, 15.9	13.5, 14.9		-3.8, -0.6	-0.25, -0.04
NSP g		11.3	11.7	12.3	13.0	13.2	***<0.001***	2.6	0.21
		10.7, 12.0	11.1, 12.4	11.4, 13.1	12.3, 13.7	12.6, 13.9		1.6, 3.6	0.13, 0.29
Food Energy - MJ		8.3	8.3	8.3	8.7	8.3	*0.706*	0.1	0.01
		7.9, 8.8	7.9, 8.7	7.8, 8.8	8.2, 9.1	7.9, 8.6		-0.5, 0.7	-0.06, 0.08
Food Energy - kcal		1983	1967	1979	2066	1972	*0.713*	25.8	0.01
		1880, 2086	1871, 2063	1865, 2093	1961, 2172	1889, 2054		-120, 171	-0.06, 0.09
n Households		*336*	*346*	*345*	*310*	*394*		*1731*	*1731*
n People		*744*	*761*	*755*	*703*	*1012*		*3975*	*3975*
n People Weighted[1]		*2740*	*2776*	*2855*	*2668*	*3738*		*14776*	14776

Household and eating out intakes combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results

[1]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Intake of Scottish Dietary Goal Nutrients by SIMD, 2007 to 2009 Combined

LCFS data (units/person/day)

	Scottish Dietary Goal	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII 95% CI	RII 95%CI
Energy Density kcal/100g	125kcal/100g	177	173	171	174	167	***0.025***	-9.1	0.58
		171, 182	168, 177	167, 175	168, 180	163, 171		-16.9, -1.3	0.45, 0.72
% Food Energy - Fat	≤35%	38.8	39.1	38.6	39.1	38.7	*0.922*	-0.1	0.00
		37.6, 39.9	38.2, 40.0	37.8, 39.5	38.1, 40.2	38.1, 39.3		-1.7, 1.6	-0.04, 0.04
% Food Energy - Saturated Fat	≤11%	15.2	15.0	15.3	15.3	15.4	*0.281*	0.3	0.02
		14.8, 15.7	14.6, 15.3	14.8, 15.8	14.9, 15.8	15.0, 15.7		-0.3, 0.9	-0.02, 0.06
% Food Energy - NMES	Adults - No ↑ Children - <10%	15.5	14.9	15.6	14.5	14.3	***0.011***	-1.5	-0.10
		14.6, 16.5	14.0, 15.8	14.4, 16.8	13.9, 15.1	13.7, 14.8		-2.6, -0.4	-0.17, -0.03
NSP g		11.4	12.4	12.6	13.1	13.8	***<0.001***	2.7	0.21
		10.5, 12.3	11.7, 13.2	11.9, 13.3	12.0, 14.2	13.2, 14.4		1.5, 3.9	0.12, 0.30
Food Energy - MJ		8.5	8.5	8.6	8.6	8.6	*0.625*	0.2	0.02
		7.9, 9.1	8.0, 8.9	8.2, 9.0	8.1, 9.1	8.3, 8.9		-0.6, 0.9	-0.07, 0.10
Food Energy - kcal		2022	2021	2037	2057	2048	*0.629*	42.7	0.02
		1889, 2156	1916, 2126	1944, 2131	1937, 2177	1971, 2126		-136, 221	-0.07, 0.11
n Households		*270*	*309*	*303*	*301*	*354*		*1537*	*1537*
n People		*540*	*658*	*656*	*665*	*852*		*3371*	*3371*
n People Weighted[1]		*2495*	*2974*	*2948*	*3057*	*3882*		*15356*	*15356*

Household and eating out intakes combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]The results are weighted to the Scottish population - the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Consumption of Additional Foods and Drinks Indicative of Diet Quality (sweet) by SIMD, 2001 to 2003 Combined - EFS data (g/person/day)

Food	SIMD Quintile 1*	SIMD Quintile 2	SIMD Quintile 3	SIMD Quintile 4	SIMD Quintile 5*	*P-value for Linear Association*	SII	RII
	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI		95% CI	95%CI
Total Bread	115	109	109	102	101	***0.002***	-17.7	-0.16
	107, 123	101, 116	102, 117	96.7, 108	94.7, 106		-28.7, -6.6	-0.27, -0.06
Brown/Wholemeal Bread	13.0	15.7	17.6	21.3	22.9	***<0.001***	12.6	0.70
	10.7, 15.2	13.4, 17.9	15.4, 19.8	18.3, 24.4	20.1, 25.7		8.2, 17.1	0.46, 0.95
Total Breakfast Cereal	15.4	16.5	19.5	23.0	23.2	***<0.001***	10.9	0.56
	13.1, 17.7	14.1, 18.9	17.3, 21.6	20.6, 25.4	20.1, 26.2		6.6, 15.3	0.34, 0.78
High Fibre Breakfast Cereal	6.7	8.7	9.3	12.7	14.3	***<0.001***	9.5	0.92
	5.1, 8.3	6.7, 10.6	7.5, 11.0	10.5, 15.0	11.5, 17.1		5.9, 13.0	0.57, 1.26
Cakes and Pastries	16.1	16.8	17.3	18.5	17.8	*0.225*	2.6	0.15
	13.9, 18.2	14.2, 19.4	15.1, 19.5	16.0, 21.0	14.9, 20.6		-1.6, 6.9	-0.09, 0.40
Sweet Biscuits	20.1	21.8	24.6	24.1	21.3	*0.237*	2.7	0.12
	18.3, 21.9	19.3, 24.2	21.9, 27.2	21.8, 26.4	18.1, 24.6		-1.6, 7.0	-0.07, 0.31
Cakes, Sweet Biscuits and Pastries	36.1	38.6	41.9	42.6	39.1	*0.145*	5.4	0.14
	33.0, 39.3	34.2, 42.9	37.7, 46.0	38.6, 46.7	33.9, 44.3		-1.6, 12.3	-0.04, 0.31
Sugar and Preserves	18.7	20.6	21.5	17.7	14.9	***0.046***	-4.8	-0.26
	15.3, 22.0	17.3, 24.0	16.2, 26.8	14.8, 20.6	12.0, 17.8		-9.7, 0.1	-0.52, 0.01
Chocolate Confectionery	14.2	13.9	15.4	15.0	15.3	*0.407*	1.7	0.11
	11.8, 16.6	11.9, 15.9	13.1, 17.7	12.4, 17.6	12.8, 17.9		-2.3, 5.7	-0.16, 0.39
Sugar Confectionery	8.4	6.7	9.3	7.8	6.7	*0.279*	-1.0	-0.13
	7.1, 9.7	5.8, 7.6	7.5, 11.1	6.4, 9.2	5.6, 7.8		-2.9, 0.9	-0.37, 0.12
Total Confectionery	22.6	20.6	24.7	22.8	22.1	*0.806*	0.7	0.03
	19.2, 25.9	18.0, 23.2	21.5, 27.8	19.7, 26.0	18.9, 25.2		-4.5, 5.8	-0.20, 0.26
Sugar Containing Soft Drinks	307	254	239	221	199	***<0.001***	-123	-0.50
	268, 347	227, 281	207, 270	190, 251	170, 228		-178, -68.7	-0.73, -0.28
Sugar Free Soft Drinks	85.4	99.4	108	116	112	***0.021***	35.6	0.34
	70.2, 101	77.8, 121	89.1, 127	93.9, 138	91.2, 133		6.2, 65.1	0.06, 0.63
Total Soft Drinks	392	353	346	337	312	***0.004***	-87.8	-0.25
	355, 430	322, 385	309, 384	299, 374	276, 347		-146, -29.4	-0.42, -0.08
n Households	*366*	*383*	*351*	*352*	*298*		*1750*	*1750*
n People	*810*	*838*	*793*	*841*	*740*		*4022*	*4022*
n People Weighted[1]	*3044*	*3075*	*2913*	*3140*	*2764*		*14935*	*14935*

Household and eating out intakes combined; ***SIMD Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Consumption of Additional Foods and Drinks Indicative of Diet Quality (sweet) by SIMD, 2004 to 2006 Combined

EFS data (g/person/day)

Food	**SIMD Quintile 1*** Mean 95% CI	**SIMD Quintile 2** Mean 95% CI	**SIMD Quintile 3** Mean 95% CI	**SIMD Quintile 4** Mean 95% CI	**SIMD Quintile 5*** Mean 95% CI	***P-value for Linear Association***	**SII** 95% CI	**RII** 95%CI
Total Bread	101	108	101	102	94.5	*0.073*	-10.8	-0.11
	93.8, 108	100, 117	91.6, 111	94.1, 109	88.3, 101		-22.6, 1.0	-0.22, 0.01
Brown/Wholemeal Bread	18.2	19.6	24.8	24.9	25.3	***0.001***	9.6	0.42
	14.8, 21.6	16.9, 22.2	20.6, 29.0	21.6, 28.3	22.2, 28.3		4.4, 14.8	0.19, 0.65
Total Breakfast Cereal	14.7	17.1	17.4	22.7	25.3	***<0.001***	13.8	0.70
	12.5, 16.9	14.4, 19.8	15.0, 19.9	19.5, 26.0	22.2, 28.5		9.7, 17.9	0.49, 0.90
High Fibre Breakfast Cereal	7.5	8.5	9.7	13.7	15.1	***<0.001***	10.5	0.95
	5.8, 9.1	6.3, 10.6	8.0, 11.3	11.2, 16.3	12.8, 17.4		7.1, 13.8	0.64, 1.24
Cakes and Pastries	16.1	18.1	16.0	19.3	17.6	*0.361*	1.9	0.11
	12.9, 19.4	15.5, 20.7	13.9, 18.1	16.7, 22.0	15.5, 19.7		-2.3, 6.0	-0.13, 0.34
Sweet Biscuits	21.6	20.2	22.0	22.1	20.1	*0.700*	-0.9	-0.04
	18.5, 24.7	17.0, 23.4	18.6, 25.4	19.4, 24.8	17.9, 22.3		-5.5, 3.7	-0.26, 0.18
Cakes, Sweet Biscuits and Pastries	37.8	38.3	38.0	41.4	37.7	*0.779*	1.0	0.03
	32.7, 42.9	33.8, 42.8	33.4, 42.5	37.4, 45.5	34.2, 41.2		-6.2, 8.2	-0.16, 0.21
Sugar and Preserves	19.7	15.3	16.8	19.4	14.7	*0.327*	-3.4	-0.20
	14.4, 24.9	12.7, 17.9	13.6, 19.9	15.5, 23.2	11.9, 17.6		-10.2, 3.4	-0.60, 0.20
Chocolate Confectionery	13.2	13.9	14.4	15.4	13.6	*0.657*	0.8	0.06
	11.2, 15.2	11.9, 15.9	11.6, 17.2	12.2, 18.6	11.3, 15.9		-2.8, 4.4	-0.20, 0.31
Sugar Confectionery	6.9	7.2	7.1	7.2	6.0	*0.315*	-1.1	-0.16
	5.7, 8.1	5.6, 8.8	5.3, 8.8	5.1, 9.2	5.0, 7.1		-3.3, 1.1	-0.49, 0.16
Total Confectionery	20.2	21.1	21.5	22.6	19.6	*0.899*	-0.3	-0.01
	17.3, 23.0	18.6, 23.6	17.5, 25.4	18.3, 26.8	16.6, 22.5		-5.5, 4.8	-0.26, 0.23
Sugar Containing Soft Drinks	298	237	244	224	184	***<0.001***	-124	-0.53
	242, 354	213, 261	210, 277	195, 253	160, 209		-186, -62.5	-0.79, -0.27
Sugar Free Soft Drinks	109	90.2	119	84.1	73.9	***0.019***	-40.1	-0.43
	80.5, 137	70.0, 110	89.7, 148	64.6, 104	61.8, 86.0		-73.4, -6.7	-0.78, -0.07
Total Soft Drinks	407	327	362	308	258	***<0.001***	-164	-0.50
	341, 472	292, 363	313, 412	267, 349	231, 286		-238, -90.1	-0.73, -0.28
n Households	*336*	*346*	*345*	*310*	*394*		*1731*	*1731*
n People	*744*	*761*	*755*	*703*	*1012*		*3975*	*3975*
n People Weighted[1]	*2740*	*2776*	*2855*	*2668*	*3738*		*14776*	*14776*

Household and eating out intakes combined; ***SIMD Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**
From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results
[1]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Consumption of Additional Foods and Drinks Indicative of Diet Quality (sweet) by SIMD, 2007 to 2009 Combined

LCFS data (g/person/day)

Food	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII 95% CI	RII 95%CI
Total Bread	105	97.5	91.1	93.7	91.5	***0.004***	-14.1	-0.15
	96.9, 113	90.6, 104	85.6, 96.6	87.4, 100	87.0, 95.9		-23.5, -4.7	-0.25, -0.05
Brown/Wholemeal Bread	17.2	23.0	22.3	23.1	26.5	***0.001***	9.1	0.40
	14.3, 20.2	19.3, 26.8	18.7, 25.8	19.8, 26.3	24.0, 29.0		4.0, 14.2	0.18, 0.62
Total Breakfast Cereal	15.7	19.7	22.7	24.3	27.0	***<0.001***	13.4	0.60
	12.3, 19.0	17.4, 22.1	20.2, 25.3	20.0, 28.6	24.4, 29.6		8.3, 18.4	0.37, 0.82
High Fibre Breakfast Cereal	7.5	10.9	14.0	15.1	17.2	***<0.001***	11.5	0.86
	5.2, 9.8	9.3, 12.6	11.9, 16.2	11.9, 18.4	15.3, 19.1		8.3, 14.8	0.62, 1.10
Cakes and Pastries	15.2	15.2	18.0	18.4	19.7	***0.006***	6.1	0.35
	12.8, 17.6	13.3, 17.1	15.8, 20.2	15.4, 21.3	17.4, 22.0		1.9, 10.3	0.11, 0.59
Sweet Biscuits	24.2	21.2	25.5	23.2	24.0	*0.692*	1.0	0.04
	20.5, 28.0	18.6, 23.8	21.1, 29.9	19.3, 27.1	21.7, 26.3		-3.8, 5.7	-0.16, 0.24
Cakes, Sweet Biscuits and Pastries	39.4	36.4	43.5	41.5	43.7	*0.070*	7.1	0.17
	34.0, 44.9	32.7, 40.1	38.0, 48.9	35.2, 47.8	40.3, 47.0		-0.5, 14.6	-0.01, 0.36
Sugar and Preserves	16.4	17.5	18.4	22.1	15.8	*0.779*	0.6	0.03
	13.4, 19.3	12.0, 23.0	16.0, 20.9	17.9, 26.2	13.3, 18.2		-5.0, 6.3	-0.28, 0.35
Chocolate Confectionery	13.6	15.5	16.6	14.1	16.1	*0.443*	1.7	0.11
	11.4, 15.7	11.9, 19.2	14.1, 19.1	11.4, 16.8	13.8, 18.4		-2.7, 6.0	-0.18, 0.39
Sugar Confectionery	7.9	6.8	6.7	6.7	6.1	*0.151*	-1.8	-0.26
	6.1, 9.8	5.8, 7.8	5.5, 8.0	5.2, 8.2	4.8, 7.4		-4.3, 0.7	-0.63, 0.10
Total Confectionery	21.5	22.3	23.3	20.7	22.2	*0.958*	-0.1	0.00
	18.1, 25.0	18.4, 26.3	20.3, 26.3	17.5, 24.0	19.5, 24.9		-5.6, 5.3	-0.25, 0.24
Sugar Containing Soft Drinks	284	246	214	175	180	***<0.001***	-134	-0.62
	244, 325	207, 286	186, 242	155, 195	157, 203		-185, -82.7	-0.86, -0.38
Sugar Free Soft Drinks	93.0	93.7	76.9	97.2	82.4	*0.629*	-9.4	-0.11
	66.3, 120	70.4, 117	62.1, 91.8	73.5, 121	63.8, 101		-47.8, 29.0	-0.54, 0.33
Total Soft Drinks	377	340	291	272	262	***<0.001***	-143	-0.47
	320, 434	295, 385	256, 326	237, 308	229, 295		-210, -76.7	-0.69, -0.25
n Households	*270*	*309*	*303*	*301*	*354*		*1537*	*1537*
n People	*540*	*658*	*656*	*665*	*852*		*3371*	*3371*
n People Weighted[1]	*2495*	*2974*	*2948*	*3057*	*3882*		*15356*	*15356*

Household and eating out intakes combined; ***SIMD Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Consumption of Additional Foods and Drinks Indicative of Diet Quality (not sweet) by SIMD, 2001 to 2003 Combined

EFS data (g/person/day)

Food	**SIMD Quintile 1*** Mean 95% CI	**SIMD Quintile 2** Mean 95% CI	**SIMD Quintile 3** Mean 95% CI	**SIMD Quintile 4** Mean 95% CI	**SIMD Quintile 5*** Mean 95% CI	***P-value for Linear Association***	**SII** 95% CI	**RII** 95%CI
Bacon and Ham	12.1	12.7	12.7	11.1	12.3	*0.648*	-0.6	-0.05
	10.6, 13.5	11.2, 14.2	11.0, 14.3	9.7, 12.6	10.4, 14.1		-3.3, 2.0	-0.27, 0.16
Other Red Meat Products[1,2]	36.5	31.0	28.7	25.7	25.0	***<0.001***	-14.1	-0.48
	33.6, 39.4	28.5, 33.4	25.8, 31.5	23.2, 28.2	22.5, 27.6		-18.0, -10.3	-0.61, -0.35
Butter	4.7	5.6	7.1	5.9	5.8	*0.110*	1.4	0.24
	3.6, 5.7	4.4, 6.8	5.2, 9.0	4.5, 7.4	4.8, 6.9		-0.3, 3.2	-0.05, 0.55
Whole Milk	123	99.3	92.9	64.9	62.2	***<0.001***	-77.7	-0.88
	101, 146	82.1, 116	73.4, 113	50.4, 79.4	44.6, 79.9		-109, -46.2	-1.23, -0.52
Semi-skimmed Milk	120	122	118	128	139	*0.128*	21.0	0.17
	101, 138	107, 138	104, 132	111, 146	123, 155		-6.7, 48.8	-0.05, 0.39
Skimmed Milk	10.3	8.8	14.8	12.2	15.3	*0.138*	6.5	0.53
	4.8, 15.7	5.4, 12.2	6.2, 23.5	6.4, 18.0	9.1, 21.5		-2.1, 15.2	-0.17, 1.25
Total Milk	276	255	245	226	238	***0.007***	-53.2	-0.21
	256, 296	232, 278	224, 266	205, 248	213, 263		-90.5, -15.9	-0.36, -0.06
White Fish	81.8	88.2	96.9	102	101	***0.011***	26.1	0.28
	68.3, 95.3	77.6, 98.9	85.4, 108	89.3, 115	87.7, 114		6.3, 46.0	0.07, 0.49
Fresh Potatoes	60.2	62.0	66.6	63.2	47.1	***0.022***	-10.9	-0.18
	53.0, 67.3	55.5, 68.4	57.8, 75.5	56.1, 70.3	42.6, 51.5		-20.7, -1.0	-0.35, -0.02
Processed Potatoes	37.9	34.6	32.2	29.1	28.5	***<0.001***	-12.1	-0.37
	34.5, 41.3	31.3, 37.9	28.3, 36.1	26.0, 32.2	25.3, 31.8		-16.8, -7.4	-0.52, -0.23
Savoury Snacks	15.5	14.5	13.6	14.6	14.4	*0.365*	-1.1	-0.08
	14.0, 17.1	13.0, 16.1	12.1, 15.2	13.1, 16.1	13.0, 15.8		-3.6, 1.3	-0.25, 0.09
Takeaway Foods	26.5	24.2	18.3	17.7	21.2	***0.002***	-8.8	-0.41
	22.3, 30.7	20.5, 27.9	15.4, 21.3	14.0, 21.5	17.4, 25.1		-14.2, -3.5	-0.66, -0.16
n Households	*366*	*383*	*351*	*352*	*298*		*1750*	*1750*
n People	*810*	*838*	*793*	*841*	*740*		*4022*	*4022*
n People Weighted[3]	*3044*	*3075*	*2913*	*3140*	*2764*		*14935*	14935

Household and eating out intakes combined; ***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**
[1]Meat portion only – see appendices 1 & 3 for methodology; [2]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Consumption of Additional Foods and Drinks Indicative of Diet Quality (not sweet) by SIMD, 2004 to 2006 Combined

EFS data (g/person/day)

Food	SIMD Quintile 1* Mean 95% CI	SIMD Quintile 2 Mean 95% CI	SIMD Quintile 3 Mean 95% CI	SIMD Quintile 4 Mean 95% CI	SIMD Quintile 5* Mean 95% CI	*P-value for Linear Association*	SII 95% CI	RII 95%CI
Bacon and Ham	11.8	10.5	11.9	13.7	10.9	*0.809*	0.3	0.03
	9.8, 13.9	9.1, 11.8	10.6, 13.3	12.3, 15.1	9.4, 12.5		-2.6, 3.3	-0.22, 0.28
Other Red Meat Products[1,2]	32.5	31.2	26.8	24.8	21.6	***<0.001***	-14.4	-0.53
	29.2, 35.8	27.3, 35.2	24.3, 29.3	22.1, 27.5	19.6, 23.7		-19.2, -9.6	-0.71, -0.35
Butter	4.6	7.0	7.8	7.4	6.8	*0.117*	2.1	0.31
	3.2, 6.0	5.8, 8.2	6.0, 9.6	6.0, 8.7	5.0, 8.6		-0.5, 4.8	-0.07, 0.72
Whole Milk	93.4	78.7	63.9	64.3	39.5	***<0.001***	-63.6	-0.96
	74.9, 112	64.4, 93.0	44.8, 82.9	52.4, 76.2	25.7, 53.2		-88.6, -38.7	-1.34, -0.58
Semi-skimmed Milk	124	109	137	128	142	*0.066*	28.7	0.22
	102, 146	92.0, 126	115, 159	112, 144	124, 159		-1.9, 59.2	-0.01, 0.46
Skimmed Milk	10.4	14.1	9.6	10.1	22.6	***0.004***	12.1	0.87
	5.6, 15.1	8.3, 19.9	2.9, 16.3	5.5, 14.6	18.0, 27.3		4.1, 20.1	0.29, 1.45
Total Milk	254	219	224	226	220	*0.138*	-30.4	-0.13
	232, 275	200, 238	202, 247	209, 243	194, 245		-70.8, 10.0	-0.31, 0.04
White Fish	73.7	80.5	91.1	95.0	102	***<0.001***	36.5	0.41
	65.4, 82.0	62.8, 98.1	75.2, 107	80.8, 109	90.0, 115		19.0, 54.0	0.21, 0.60
Fresh Potatoes	54.9	59.2	55.4	53.7	59.7	*0.652*	2.8	0.05
	47.4, 62.4	49.5, 69.0	45.9, 64.8	45.2, 62.2	52.1, 67.2		-9.5, 15.1	-0.17, 0.27
Processed Potatoes	35.7	30.9	26.9	27.1	21.1	***<0.001***	-17.0	-0.61
	32.2, 39.1	27.7, 34.2	22.6, 31.2	23.5, 30.7	18.5, 23.8		-21.5, -12.5	-0.77, -0.45
Savoury Snacks	12.8	12.9	12.3	12.4	11.4	*0.204*	-1.8	-0.15
	10.7, 14.9	11.3, 14.5	10.1, 14.4	10.6, 14.3	10.2, 12.6		-4.5, 1.0	-0.37, 0.08
Takeaway Foods	25.3	24.1	19.9	18.1	16.5	***<0.001***	-11.9	-0.58
	20.8, 29.9	20.0, 28.1	16.3, 23.5	14.2, 22.1	13.5, 19.5		-18.0, -5.9	-0.88, -0.29
n Households	*336*	*346*	*345*	*310*	*394*		*1731*	*1731*
n People	*744*	*761*	*755*	*703*	*1012*		*3975*	*3975*
n People Weighted[3]	*2740*	*2776*	*2855*	*2668*	*3738*		*14776*	14776

Household and eating out intakes combined

From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]Meat portion only – see appendices 1 & 3 for methodology; [2]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 7: SIMD Data for 2001-2003, 2004-2006 and 2007-2009

Consumption of Additional Foods and Drinks Indicative of Diet Quality (not sweet) by SIMD, 2007 to 2009 Combined

LCFS data (g/person/day)

Food	SIMD Quintile 1*	SIMD Quintile 2	SIMD Quintile 3	SIMD Quintile 4	SIMD Quintile 5*	*P-value for Linear Association*	SII	RII
	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI		95% CI	95%CI
Bacon and Ham	10.7	12.5	12.7	12.3	12.5	*0.275*	1.5	0.12
	8.8, 12.5	10.9, 14.2	11.7, 13.8	10.5, 14.1	11.1, 14.0		-1.3, 4.2	-0.11, 0.34
Other Red Meat Products[1,2]	33.4	30.6	25.8	24.6	23.0	***<0.001***	-13.1	-0.49
	29.2, 37.5	27.5, 33.8	22.7, 28.8	22.0, 27.3	20.0, 25.9		-18.3, -7.8	-0.68, -0.29
Butter	5.9	5.1	7.6	7.0	6.7	*0.138*	1.6	0.25
	4.7, 7.2	3.9, 6.2	6.0, 9.1	5.6, 8.3	5.3, 8.0		-0.6, 3.7	-0.09, 0.57
Whole Milk	91.1	59.4	60.4	41.9	43.2	***0.001***	-53	-0.93
	65.4, 117	47.0, 71.7	44.4, 76.4	30.4, 53.3	28.3, 58.1		-82.1, -23.9	-1.44, -0.42
Semi-skimmed Milk	135	128	142	146	138	*0.521*	10.9	0.08
	106, 164	108, 148	124, 160	122, 170	119, 157		-23.6, 45.3	-0.17, 0.33
Skimmed Milk	11.7	13.3	22.9	17.3	17.9	*0.129*	7.2	0.43
	4.9, 18.5	8.2, 18.5	14.5, 31.2	10.3, 24.4	12.2, 23.5		-2.3, 16.8	-0.14, 1.00
Total Milk	252	223	237	223	224	*0.101*	-26.2	-0.11
	227, 278	205, 241	217, 258	201, 245	206, 242		-58.1, 5.7	-0.25, 0.02
White Fish	77.2	90.7	87.7	97.3	112	***0.008***	39.1	0.41
	60.4, 94.0	77.5, 104	73.3, 102	81.3, 113	95.8, 128		10.9, 67.3	0.12, 0.71
Fresh Potatoes	48.9	51.3	49.8	61.2	51.0	*0.283*	5.8	0.11
	40.0, 57.7	44.8, 57.9	41.5, 58.0	49.3, 73.1	47.0, 55.1		-5.3, 16.8	-0.10, 0.32
Processed Potatoes	35.4	32.2	27.6	25.7	22.9	***<0.001***	-15.5	-0.55
	30.6, 40.2	28.1, 36.2	24.2, 31.0	21.8, 29.7	19.6, 26.2		-22.4, -8.6	-0.79, -0.30
Savoury Snacks	14.0	13.3	13.4	12.8	12.3	*0.182*	-1.9	-0.15
	12.2, 15.8	11.7, 15.0	11.7, 15.1	10.7, 14.9	10.3, 14.4		-4.8, 0.9	-0.37, 0.07
Takeaway Foods	24.2	24.8	17.7	16.7	18.3	***0.008***	-9.4	-0.47
	19.1, 29.4	20.4, 29.3	14.4, 21.1	13.5, 19.9	14.8, 21.9		-16.4, -2.5	-0.82, -0.12
n Households	*270*	*309*	*303*	*301*	*354*		*1537*	*1537*
n People	*540*	*658*	*656*	*665*	*852*		*3371*	*3371*
n People Weighted[3]	*2495*	*2974*	*2948*	*3057*	*3882*		*15356*	*15356*

Household and eating out intakes combined

***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived; ** SII=Slope Index of Inequality; ***RII=Relative Index of Inequality**

[1]Meat portion only – see appendices 1 & 3 for methodology; [2] Other Red Meat Products include the meat portion of sausages, meat pies, corned beef, burgers and pate and is a component of total red meat; [3]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 8: Slope Index of Inequality and Relative Index of Inequality

The Slope Index of Inequality (SII) was calculated as a measure of inequality of food consumption and nutrient intake. The SII is a measure of absolute inequality (ScotPHO, 2007) used to assess the absolute difference between the least and most deprived individuals. The SII was derived by ranking each household by SIMD (within the 3 year period SIMD was investigated within i.e. 2001-2003, 2004-2006, 2007-2009 and 2010-2012). The rank scores obtained were divided by the sample size (for the appropriate 3 year period) to obtain a value between 0 and 1, weighted to the relative distribution across SIMD quintiles. Linear regression analysis (weighted least squares) of the mean intake within each SIMD quintile was used to calculate the SIIs for each food / nutrient. The regression (or slope) coefficient from the regression analysis is the SII. For interpretation purposes the SII is the mean difference in intake between the hypothetically most deprived relative to the hypothetically least deprived person in the population (Shaw *et al*., 2007).

In order to compare a measure of inequality across populations or years, the relative index of inequality (RII) was calculated, which is the SII divided by the overall population mean food consumption or nutrient intake. This helps when making comparisons of the magnitude of the association between the same socio-economic position measures over time. For both SII and RII, the underlying assumption is that there is a linear gradient across the deprivation variable.

The SII figures provide the absolute difference between the hypothetically most deprived and the hypothetically least deprived person for each of the foods / nutrients. A positive figure indicating that consumption / intake is higher in the least deprived and a negative figure indicating that consumption / intake is greatest in the most deprived.

SII and RII figures with 95% CI were calculated for 2001-2003, 2004-2006, 2007-2009 and 2010-2012 to allow a comparison to be made over time of absolute and relative differences. Whilst they were calculated for all foods and nutrients, it is acknowledged that a linear difference was not found for all foods and nutrients for each of the 3 year time periods. The results show that absolute and relative inequalities in food/nutrient intakes have not changed appreciably between 2001 and 2012. The magnitude of the inequalities is substantial for some foods, e.g. fruit and vegetables where the mean intake in the most deprived was the equivalent of around 2 portions less than the least deprived. A significant difference was found for SII for sugar free and total soft drink consumption, however this is difficult to explain due to changes in consumption patterns over the four time periods. For 2001 to 2003, consumption of sugar free drinks was highest in the least deprived, for 2004 to 2006 consumption was highest in the most deprived, for 2007 to 2009 and 2010 to 2012 there was little difference. This suggests that the inequality in sugar free soft drink consumption has disappeared. For total soft drink consumption, it would appear that the gradient between most deprived and least deprived is reducing.

Appendix 8: Slope Index of Inequality and Relative Index of Inequality

Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Scottish Dietary Goal Foods

EFS/LCFS data (g/person/day with the exception of fish g/person/week)

Food	2001-2003 **SII**[2,3] 95% CI	2004-2006[1] **SII**[2,3] 95% CI	2007-2009 **SII**[2,3] 95% CI	2010-2012 **SII**[2,3] 95% CI	*P-value*	2001-2003 **RII**[3] 95%CI	2004-2006[1] **RII**[3] 95%CI	2007-2009 **RII**[3] 95%CI	2010-2012 **RII**[3] 95% CI
Fruit and Vegetables [4,5]	167	157	166	148	*0.892*	0.65	0.57	0.58	0.55
	132, 202	124, 190	128, 204	105, 192		0.51, 0.79	0.45, 0.69	0.45, 0.72	0.39, 0.72
Fruit[4]	119	104	112	95.2	*0.575*	0.90	0.71	0.72	0.68
	95.5, 143	81.9, 126	85.3, 138	66.6, 123.7		0.72, 1.07	0.56, 0.86	0.55, 0.90	0.48, 0.88
Vegetables[5]	47.7	52.9	54.3	53.3	*0.952*	0.39	0.41	0.42	0.42
	31.4, 63.9	34.1, 71.8	35.2, 73.3	27.6, 79.0		0.25, 0.52	0.27, 0.56	0.27, 0.56	0.22, 0.62
Oil Rich Fish	25.4	34.2	25.1	22.6	*0.686*	0.81	0.89	0.78	0.77
	12.8, 38.1	19.0, 49.4	13.7, 36.5	10.9, 34.2		0.41, 1.22	0.49, 1.28	0.43, 1.14	0.37, 1.16
Total Red Meat[6]	-12.2	-13.9	-8.6	-5.5	*0.648*	-0.19	-0.23	-0.14	-0.09
	-19.5, -4.9	-22.8, -5.1	-19.3, 2.1	-17.0, 6.0		-0.30, -0.08	-0.37, -0.08	-0.31, 0.03	-0.28, 0.10
n Households	*1750*	*1731*	*1537*	*1436*		*1750*	*1731*	*1537*	*1436*
n People	*4022*	*3975*	*3371*	*3181*		*4022*	*3975*	*3371*	*3181*
n People Weighted[7]	*14935*	*14776*	*15356*	*15336*		*14935*	*14776*	*15356*	*15336*

Slope Index of Inequality (SII); Relative Index of Inequality (RII); Household and eating out consumption combined; [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Mean difference in intake (g/person/day with the exception of fish g/person/week) in the most deprived relative to the least deprived (slope of the gradient between the most deprived and the least deprived); [3]A positive figure indicates that consumption / intakes are highest in the least deprived and a negative figure indicates that consumption / intakes are highest in the most deprived; [4]Fruit includes fruit and vegetable juice; [5]Vegetables include baked beans; [6]Meat portion only – see appendices 1 & 3 for methodology; [7]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 8: Slope Index of Inequality and Relative Index of Inequality

Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Dietary Goal Nutrients

EFS/LCFS data (units/person/day)

	2001-2003	2004-2006[1]	2007-2009	2010-2012	*P-value*	2001-2003	2004-2006[1]	2007-2009	2010-2012
	SII[2,3] 95% CI	SII[2,3] 95% CI	SII[2,3] 95% CI	SII[2,3] 95% CI		RII[3] 95%CI	RII[3] 95%CI	RII[3] 95%CI	RII[3] 95% CI
Energy Density kcal/100g	-11.4	-16.0	-9.1	-11.4	*0.545*	-0.07	-0.09	-0.05	-0.07
	-17.3, -5.6	-22.6, -9.4	-16.9, -1.3	-19.8, -3		-0.1, -0.03	-0.13, -0.06	-0.1, -0.01	-0.11, -0.02
% Food Energy - Fat	-0.2	-0.6	-0.1	0.5	*0.658*	-0.01	-0.02	0.00	0.01
	-1.4, 1.1	-1.8, 0.5	-1.7, 1.6	-1, 2		-0.04, 0.03	-0.05, 0.01	-0.04, 0.04	-0.02, 0.05
% Food Energy -Saturated Fat	0.1	0.2	0.3	0.7	*0.486*	0.01	0.01	0.02	0.05
	-0.4, 0.6	-0.5, 0.9	-0.3, 0.9	0.1, 1.4		-0.03, 0.04	-0.03, 0.06	-0.02, 0.06	0, 0.09
% Food Energy - NMES	-2.4	-2.2	-1.5	-1.4	*0.628*	-0.15	-0.14	-0.10	-0.1
	-3.7, -1.1	-3.8, -0.6	-2.6, -0.4	-2.7, -0.1		-0.24, -0.07	-0.25, -0.04	-0.17, -0.03	-0.18, -0.01
NSP g	2.4	2.6	2.7	2.6	*0.984*	0.20	0.21	0.21	0.22
	1.3, 3.5	1.6, 3.6	1.5, 3.9	1.5, 3.8		0.11, 0.28	0.13, 0.29	0.12, 0.30	0.12, 0.31
Food Energy - MJ	0.0	0.1	0.2	0.5	*0.192*	0.00	0.01	0.02	0.06
	-0.7, 0.6	-0.5, 0.7	-0.6, 0.9	-0.3, 1.3		-0.08, 0.07	-0.06, 0.08	-0.07, 0.10	-0.04, 0.16
Food Energy - kcal	-7.2	25.8	42.7	126	*0.183*	0.00	0.01	0.02	0.06
	-163, 148	-120, 171	-136, 221	-67, 319		-0.08, 0.07	-0.06, 0.09	-0.07, 0.11	-0.03, 0.16
n Households	*1750*	*1731*	*1537*	*1436*		*1750*	*1731*	*1537*	*1436*
n People	*4022*	*3975*	*3371*	*3181*		*4022*	*3975*	*3371*	*3181*
n People Weighted[4]	*14935*	*14776*	*15356*	*15336*		14935	14776	*15356*	*15336*

Slope Index of Inequality (SII); Relative Index of Inequality (RII); Household and eating out consumption combined; [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Mean difference in intake (g/person/day with the exception of fish g/person/week) in the most deprived relative to the least deprived (slope of the gradient between the most deprived and the least deprived); [3]A positive figure indicates that consumption / intakes are highest in the least deprived and a negative figure indicates that consumption / intakes are highest in the most deprived; [4]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 8: Slope Index of Inequality and Relative Index of Inequality

Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Additional Foods and Drinks Indicative of Diet Quality

EFS/LCFS data (g/person/day)

Food	2001-2003 SII[2,3] 95% CI	2004-2006[1] SII[2,3] 95% CI	2007-2009 SII[2,3] 95% CI	2010-2012 SII[2,3] 95% CI	*P-value*	2001-2003 RII[3] 95%CI	2004-2006[1] RII[3] 95%CI	2007-2009 RII[3] 95%CI	2010-2012 RII[3] 95% CI
Total Bread	-17.7 -28.7, -6.6	-10.8 -22.6, 1.0	-14.1 -23.5, -4.7	-3.6 -17.8, 10.5	*0.425*	-0.16 -0.27, -0.06	-0.11 -0.22, 0.01	-0.15 -0.25, -0.05	-0.04 -0.19, 0.11
Brown/Wholemeal Bread	12.6 8.2, 17.1	9.6 4.4, 14.8	9.1 4.0, 14.2	9.3 3.1, 15.4	*0.719*	0.70 0.46, 0.95	0.42 0.19, 0.65	0.40 0.18, 0.62	0.43 0.14, 0.71
Total Breakfast Cereal	10.9 6.6, 15.3	13.8 9.7, 17.9	13.4 8.3, 18.4	10.7 5.0, 16.3	*0.692*	0.56 0.34, 0.78	0.70 0.49, 0.90	0.60 0.37, 0.82	0.51 0.24, 0.77
High Fibre Breakfast Cereal	9.5 5.9, 13.0	10.5 7.1, 13.8	11.5 8.3, 14.8	8.8 5.5, 12.2	*0.743*	0.92 0.57, 1.26	0.95 0.64, 1.24	0.86 0.62, 1.10	0.74 0.46, 1.02
Cakes and Pastries	2.6 -1.6, 6.9	1.9 -2.3, 6.0	6.1 1.9, 10.3	7.1 3.6, 10.5	*0.052*	0.15 -0.09, 0.40	0.11 -0.13, 0.34	0.35 0.11, 0.59	0.43 0.22, 0.64
Sweet Biscuits	2.7 -1.6, 7.0	-0.9 -5.5, 3.7	1.0 -3.8, 5.7	5.8 1.9, 9.8	*0.138*	0.12 -0.07, 0.31	-0.04 -0.26, 0.18	0.04 -0.16, 0.24	0.28 0.09, 0.47
Cakes, Sweet Biscuits and Pastries	5.4 -1.6, 12.3	1.0 -6.2, 8.2	7.1 -0.5, 14.6	12.9 7.0, 18.8	*0.057*	0.14 -0.04, 0.31	0.03 -0.16, 0.21	0.17 -0.01, 0.36	0.35 0.19, 0.51
Sugar and Preserves	-4.8 -9.7, 0.1	-3.4 -10.2, 3.4	0.6 -5.0, 6.3	-2.6 -7.7, 2.5	*0.527*	-0.26 -0.52, 0.01	-0.20 -0.60, 0.20	0.03 -0.28, 0.35	-0.15 -0.45, 0.14
Chocolate Confectionery	1.7 -2.3, 5.7	0.8 -2.8, 4.4	1.7 -2.7, 6.0	0.4 -3.6, 4.4	*0.958*	0.11 -0.16, 0.39	0.06 -0.20, 0.31	0.11 -0.18, 0.39	0.03 -0.26, 0.31
Sugar Confectionery	-1.0 -2.9, 0.9	-1.1 -3.3, 1.1	-1.8 -4.3, 0.7	-1.4 -3.7, 0.9	*0.964*	-0.13 -0.37, 0.12	-0.16 -0.49, 0.16	-0.26 -0.63, 0.10	-0.20 -0.53, 0.12
Total Confectionery	0.7 -4.5, 5.8	-0.3 -5.5, 4.8	-0.1 -5.6, 5.3	-1.0 -6.1, 4.0	*0.972*	0.03 -0.20, 0.26	-0.01 -0.26, 0.23	0.00 -0.25, 0.24	-0.05 -0.29, 0.19
Sugar Containing Soft Drinks	-123 -178, -68.7	-124 -186, -62.5	-134 -185, -82.7	-66.3 -113, -19.8	*0.274*	-0.50 -0.73, -0.28	-0.53 -0.79, -0.27	-0.62 -0.86, -0.38	-0.37 -0.63, -0.11
Sugar Free Soft Drinks	35.6 6.2, 65.1	-40.1 -73.4, -6.7	-9.4 -47.8, 29.0	19.7 -23.0, 62.5	***0.013***	0.34 0.06, 0.63	-0.43 -0.78, -0.07	-0.11 -0.54, 0.33	0.17 -0.19, 0.53
Total Soft Drinks	-87.8 -146, -29.4	-164 -238, -90.1	-143 -210, -76.7	-46.5 -101, 8.1	***0.038***	-0.25 -0.42, -0.08	-0.50 -0.73, -0.28	-0.47 -0.69, -0.25	-0.16 -0.34, 0.03
n Households	*1750*	*1731*	*1537*	*1436*		*1750*	*1731*	*1537*	*1436*
n People	*4022*	*3975*	*3371*	*3181*		*4022*	*3975*	*3371*	*3181*
n People Weighted[4]	*14935*	*14776*	*15356*	*15336*		*14935*	*14776*	*15356*	*15336*

Slope Index of Inequality (SII); Relative Index of Inequality (RII); Household and eating out consumption combined; [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Mean difference in intake (g/person/day) in the most deprived relative to the least deprived (slope of the gradient between the most deprived and the least deprived; [3]A positive figure indicates that consumption / intakes are highest in the least deprived and a negative figure indicates that consumption / intakes are highest in the most deprived; [4]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Appendix 8: Slope Index of Inequality and Relative Index of Inequality

Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Additional Foods and Drinks Indicative of Diet Quality

EFS/LCFS data (g/person/day)

Food	2001-2003 SII[2,3] 95% CI	2004-2006[1] SII[2,3] 95% CI	2007-2009 SII[2,3] 95% CI	2010-2012 SII[2,3] 95% CI	*P-value*	2001-2003 RII[3] 95%CI	2004-2006[1] RII[3] 95%CI	2007-2009 RII[3] 95%CI	2010-2012 RII[3] 95% CI
Bacon and Ham	-0.6 -3.3, 2.0	0.3 -2.6, 3.3	1.5 -1.3, 4.2	1.3 -1.6, 4.3	0.708	-0.05 -0.27, 0.16	0.03 -0.22, 0.28	0.12 -0.11, 0.34	0.11 -0.13, 0.34
Other Red Meat Products[3, 4]	-14.1 -18.0, -10.3	-14.4 -19.2, -9.6	-13.1 -18.3, -7.8	-10.8 -15.4, -6.2	0.680	-0.48 -0.61, -0.35	-0.53 -0.71, -0.35	-0.49 -0.68, -0.29	-0.40 -0.58, -0.23
Butter	1.4 -0.3, 3.2	2.1 -0.5, 4.8	1.6 -0.6, 3.7	2.3 -0.5, 5.0	0.929	0.24 -0.05, 0.55	0.31 -0.07, 0.72	0.25 -0.09, 0.57	0.32 -0.07, 0.70
Whole Milk	-77.7 -109, -46.2	-63.6 -88.6, -38.7	-53 -82.1, -23.9	-50.7 -78.4, -23.0	0.574	-0.88 -1.23, -0.52	-0.96 -1.34, -0.58	-0.93 -1.44, -0.42	-1.12 -1.74, -0.51
Semi-skimmed Milk	21.0 -6.7, 48.8	28.7 -1.9, 59.2	10.9 -23.6, 45.3	33.7 1.6, 65.9	0.764	0.17 -0.05, 0.39	0.22 -0.01, 0.46	0.08 -0.17, 0.33	0.25 0.01, 0.49
Skimmed Milk	6.5 -2.1, 15.2	12.1 4.1, 20.1	7.2 -2.3, 16.8	4.6 -5.4, 14.6	0.667	0.53 -0.17, 1.25	0.87 0.29, 1.45	0.43 -0.14, 1.00	0.30 -0.36, 0.96
Total Milk	-53.2 -90.5, -15.9	-30.4 -70.8, 10.0	-26.2 -58.1, 5.7	-14.2 -48.8, 20.4	0.497	-0.21 -0.36, -0.06	-0.13 -0.31, 0.04	-0.11 -0.25, 0.02	-0.07 -0.23, 0.10
White Fish	26.1 6.3, 46.0	36.5 19.0, 54.0	39.1 10.9, 67.3	38.1 8.2, 68.0	0.844	0.28 0.07, 0.49	0.41 0.21, 0.60	0.41 0.12, 0.71	0.47 0.10, 0.84
Fresh Potatoes[5]	-10.9 -20.7, -1.0	2.8 -9.5, 15.1	5.8 -5.3, 16.8	-3.1 -15.4, 9.3	0.136	-0.18 -0.35, -0.02	0.05 -0.17, 0.27	0.11 -0.10, 0.32	-0.07 -0.33, 0.20
Processed Potatoes	-12.1 -16.8, -7.4	-17.0 -21.5, -12.5	-15.5 -22.4, -8.6	-13.2 -20.3, -6.0	0.566	-0.37 -0.52, -0.23	-0.61 -0.77, -0.45	-0.55 -0.79, -0.30	-0.45 -0.69, -0.21
Savoury Snacks	-1.1 -3.6, 1.3	-1.8 -4.5, 1.0	-1.9 -4.8, 0.9	-1.4 -4.2, 1.4	0.969	-0.08 -0.25, 0.09	-0.15 -0.37, 0.08	-0.15 -0.37, 0.07	-0.12 -0.34, 0.11
Takeaway Foods	-8.8 -14.2, -3.5	-11.9 -18.0, -5.9	-9.4 -16.4, -2.5	-4.5 -11.7, 2.8	0.474	-0.41 -0.66, -0.16	-0.58 -0.88, -0.29	-0.47 -0.82, -0.12	-0.23 -0.61, 0.14
n Households	*1750*	*1731*	*1537*	*1436*		*1750*	*1731*	*1537*	*1436*
n People	*4022*	*3975*	*3371*	*3181*		*4022*	*3975*	*3371*	*3181*
n People Weighted[6]	*14935*	*14776*	*15356*	15336		14935	14776	*15356*	*15336*

Slope Index of Inequality (SII); Relative Index of Inequality (RII); Household and eating out consumption combined; [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Mean difference in intake (g/person/day) in the most deprived relative to the least deprived (slope of the gradient between the most deprived and the least deprived; [3]A positive figure indicates that consumption / intakes are highest in the least deprived and a negative figure indicates that consumption / intakes are highest in the most deprived; [4]Meat portion only – see appendix 1 for detail; [5]Other Red Meat Products include the meat portion of sausages, meat pies, corned beef, burgers and pate, and is a component of total red meat; [6]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population