Estimation of food and nutrient intakes from Living Costs and Food Survey* data in Scotland 2001-2012

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1.0 Background and Methodology

The purpose of this report is to add an additional year's data for 2012 to the estimated food and nutrient intakes presented for 2001 to 2009 by Barton et al. (2012) and the provisional results presented for 2010 and 2011 by Barton et al. (2013). The background and methodology are as previously reported in Barton et al. (2012). These additional results are provisional and will not be finalised until a full update is published in December 2014.

As per the 2013 report, tables have been re-organised to match the revised Dietary Goals for Scotland (SDGs) (see Table 1)(Scottish Government, 2013) 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. Results are presented as population means with 95% confidence intervals (95% CI) (i.e. includes consumers and non-consumers) for household and eating out foods combined.

Table 1: 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

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

2.0 Results

2.1 Food Consumption Relating to the Scottish Dietary Goals (SDG's)

2.1.1 Food Consumption Relating to the SDG's 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 had been 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 increased gradually 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 target of 400g or five portions per day.

Fish

There has been no increase in oily fish consumption between 2001 and 2012, despite a gradual increase of oil rich fish from 26.7g/week in 2001 to 34.4g/week in 2006. Intakes in 2012 were 27.5g/day (Table 2, Figure 3).

Total Red Meat

There has been no statistically significant change in the intake of Total Red Meat since 2001. Mean daily consumption of red and processed meat 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). NB: The SDG of ≤70g per day is based on intake calculated from UK NDNS and not household purchase data. Due to methodological differences the amounts presented in this report, although similar, should only be used to assess change over time rather than considering the absolute amount.

2.1.2 Food Consumption Relating to the SDG's by SIMD Quintile (2009 to 2011 combined)

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, $P<0.001$.

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). There was no statistical difference in total red meat intake by SIMD (Table 3, Figure 6).

2.2 Nutrient Intake Relating to the SDGs

There has been no significant change in energy density (Table 4, Figure 7), percentage of energy from total fat (Table 4, Figure 9), or in 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 non-milk extrinsic sugars (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). The percentage of food energy contributed by NMES 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).

Table 5 and Figure 10 shows that there were no difference in the percentage of food energy from total fat by SIMD quintile for 2010 to 2012. Table 5 and Figure 12 shows 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). NMES 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). Likewise 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, Figure 8). 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.

2.3 Consumption of Additional Foods and Drinks Indicative of Diet Quality

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 intakes of brown/wholemeal bread have increased (P-value of linear association 0.005) from 18.2g/day in 2001 to 19.7g/day 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 at 19.5g/day (Table 6). Intakes of high fibre breakfast cereals have significantly increased between 2001 and 2012 (P-value of linear association = 0.014).

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).

Mean consumption of cakes, sweet biscuits and pastries have remained fairly constant with intakes in 2012 of 37g/day (Table 6). 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). 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.

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). 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 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 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.

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.

Because of the apparent large fluctuation in the data for 2011 which may be linked to a gradual reduction in the number of households included in the survey in Scotland in recent years (619 to 477), consideration will be given to combining 3 years of data together in future reports.

2.4. Slope Index of Inequality and Relative Index of Inequality

SII and RII figures with 95% CI were calculated for 2001-2003, 2004-2006, 2007-2009 and 2010-2012 to allow for 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. Tables 10 to 13 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. For total soft drink consumption, it would appear that the gradient between most deprived and least deprived is reducing.

References

Barton KL, Wrieden WL (2012). Estimation of food and nutrient intakes from food survey data in Scotland, 2001-2009. Technical Report to the Food Standards Agency, Scotland (FS4240180) http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1324_Final_Report_2001-2009.pdf

Barton KL, Wrieden WL (2013). Interim report on the estimation of food and nutrient intakes from Living Costs and Food Survey* data in Scotland 2001-2011 http://www.foodbase.org.uk//admintools/reportdocuments/749-1-1547_LCF_Survey_Report_for_2011_251113.pdf

Department of Health (1991), Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Report of the Panel on Dietary Reference Values of the Committee on Medical Aspects of Food Policy (COMA) Department of Health report on Health and Social Subjects 41. London: HMSO.

The Scottish Government (2013) Revised Dietary Goals for Scotland http://www.scotland.gov.uk/Topics/Health/Healthy-Living/Food-Health/DietaryGoalsScot

Wrieden WL, Barton KL, Armstrong J and McNeil G (2006) A review of food consumption and nutrient intakes from national surveys in Scotland: comparison to the Scottish Dietary Targets. Aberdeen: Food Standards Agency in Scotland.

http://www.food.gov.uk/multimedia/pdfs/scotdietrytarg.pdf

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

Food	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	
Fruit and Vegetables[2, 3]	400g per day	259	262	247	267	284	276	291	285	279	286	249	269	*0.234*
		241, 278	242, 282	227, 267	244, 290	264, 304	257, 296	267, 315	265, 304	258, 299	260, 311	228, 270	244, 293	
Fruit[2]		133	136	129	140	153	148	165	154	145	150	132	140	*0.282*
		119, 146	121, 152	115, 143	126, 154	139, 167	136, 160	148, 183	139, 169	131, 158	133, 166	118, 145	120, 159	
Vegetables[3]		126	126	118	127	131	128	125	131	134	136	117	129	*0.352*
		118, 135	118, 134	109, 127	116, 137	122, 140	117, 139	115, 136	121, 141	122, 146	119, 153	108, 127	120, 139	
Oil Rich Fish	140g per week	26.7	28.8	30.9	31.9	38.9	34.4	30.1	30.3	28.1	25.9	34.9	27.5	*0.798*
		22.7, 30.8	22.5, 35	24.7, 37.2	25.5, 38.3	23.3, 54.5	27.4, 41.4	24.6, 35.5	23.9, 36.7	23.4, 32.7	21.8, 30.1	26.2, 43.5	22.8, 32.2	
Total Red Meat[4]	70g per day	64.6	64.5	66.3	61.1	62.1	60.1	64.8	58.1	61.1	60.2	62.0	61.5	*0.051*
		59.9, 69.3	60.7, 68.4	62.2, 70.3	57.3, 64.9	58.3, 65.9	56.3, 63.9	58.6, 71.0	52.3, 63.9	57.0, 65.1	55.4, 64.9	55.2, 68.7	57.1, 65.9	
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*	

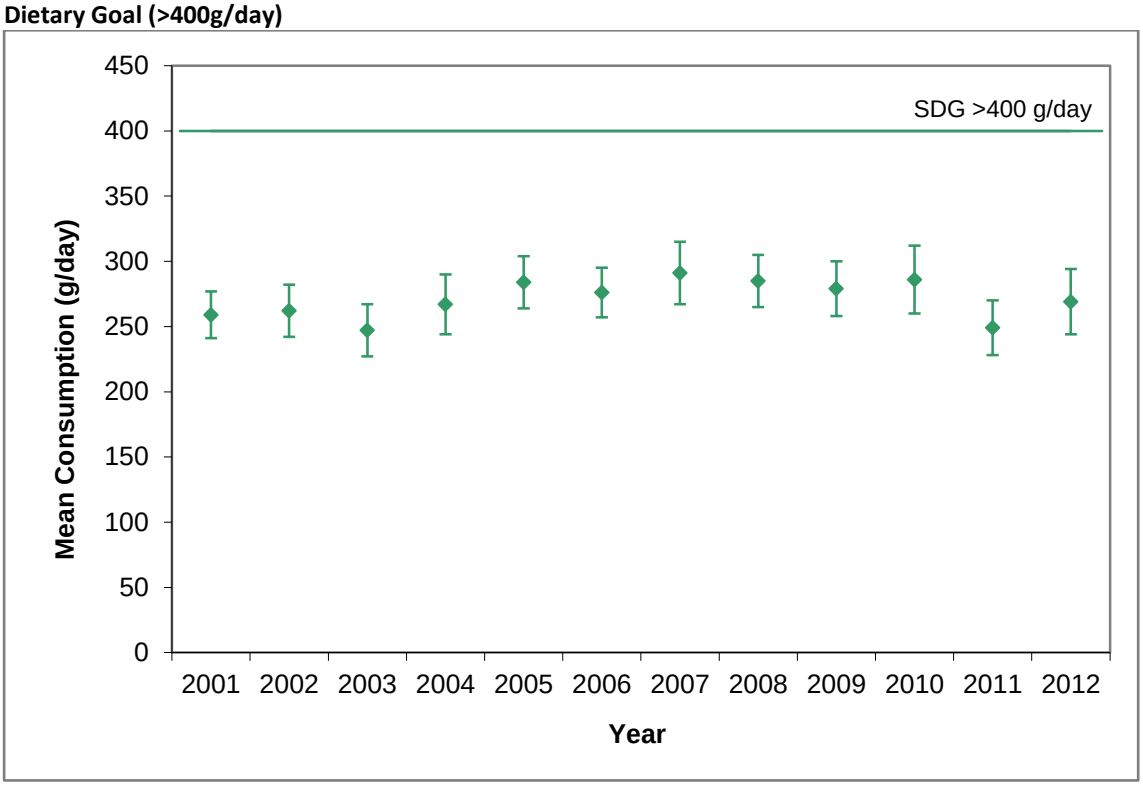
Household and eating out consumption combined. [1]From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; [2]Fruit includes fruit and vegetable juice; [3]Vegetables include baked beans; [4]Meat portion only – see appendices 2 & 4 of Barton et al., 2012 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 - LCF 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	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 2 & 4 of Barton et al., 2012 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)

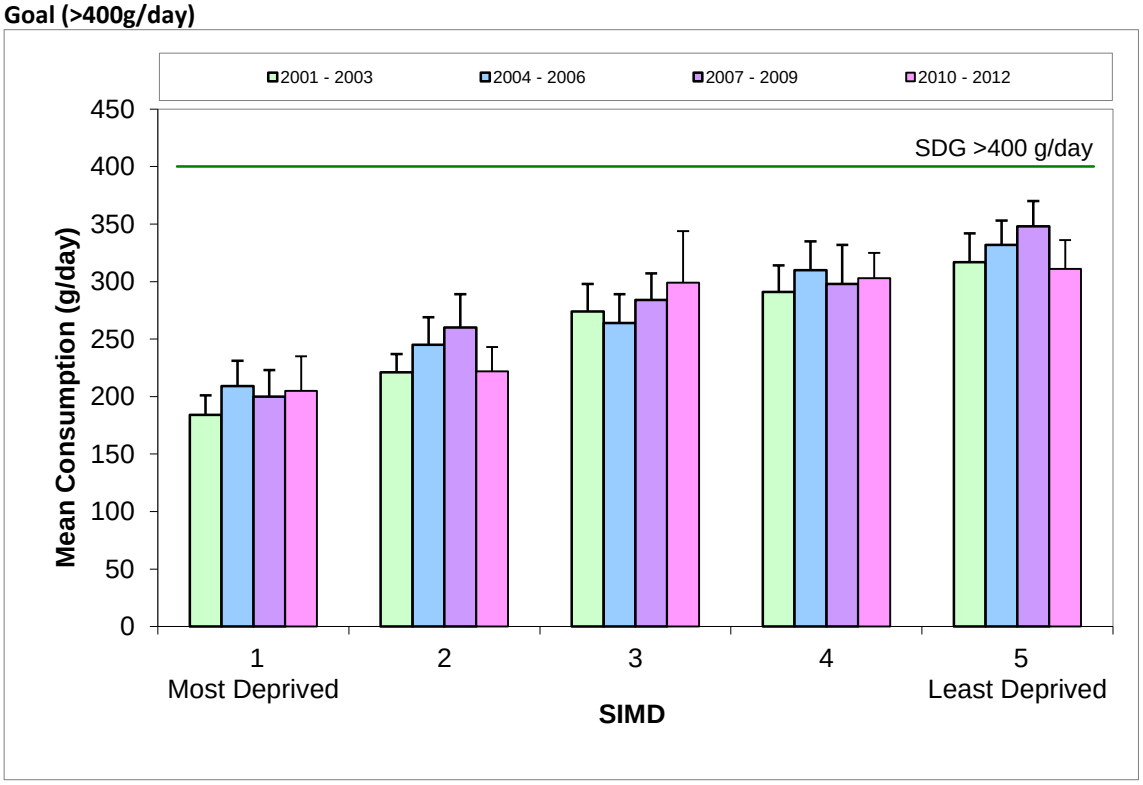


Figure 3: Mean (with 95% CI) oil rich fish consumption by year 2001 - 2012 compared to Scottish Dietary Goal (140g/week)

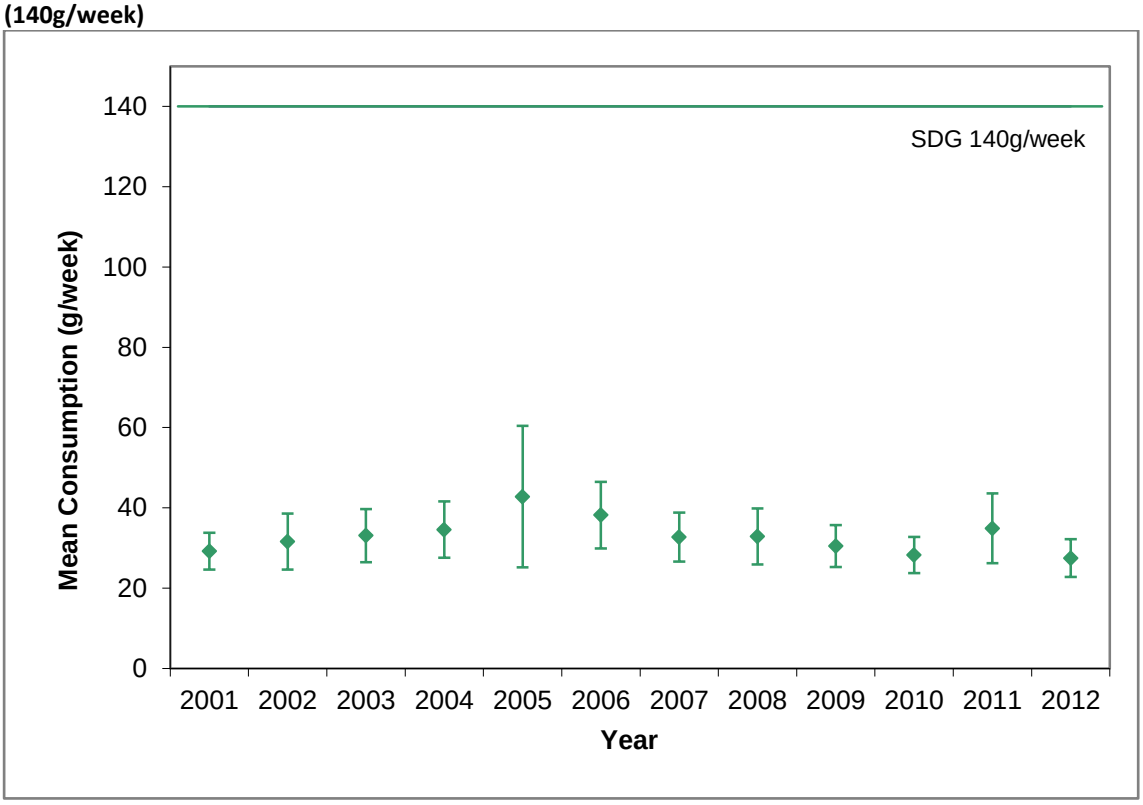


Figure 4: Mean (with 95% CI) oil rich fish consumption by SIMD quintile compared to Scottish Dietary Goal (140g/week)

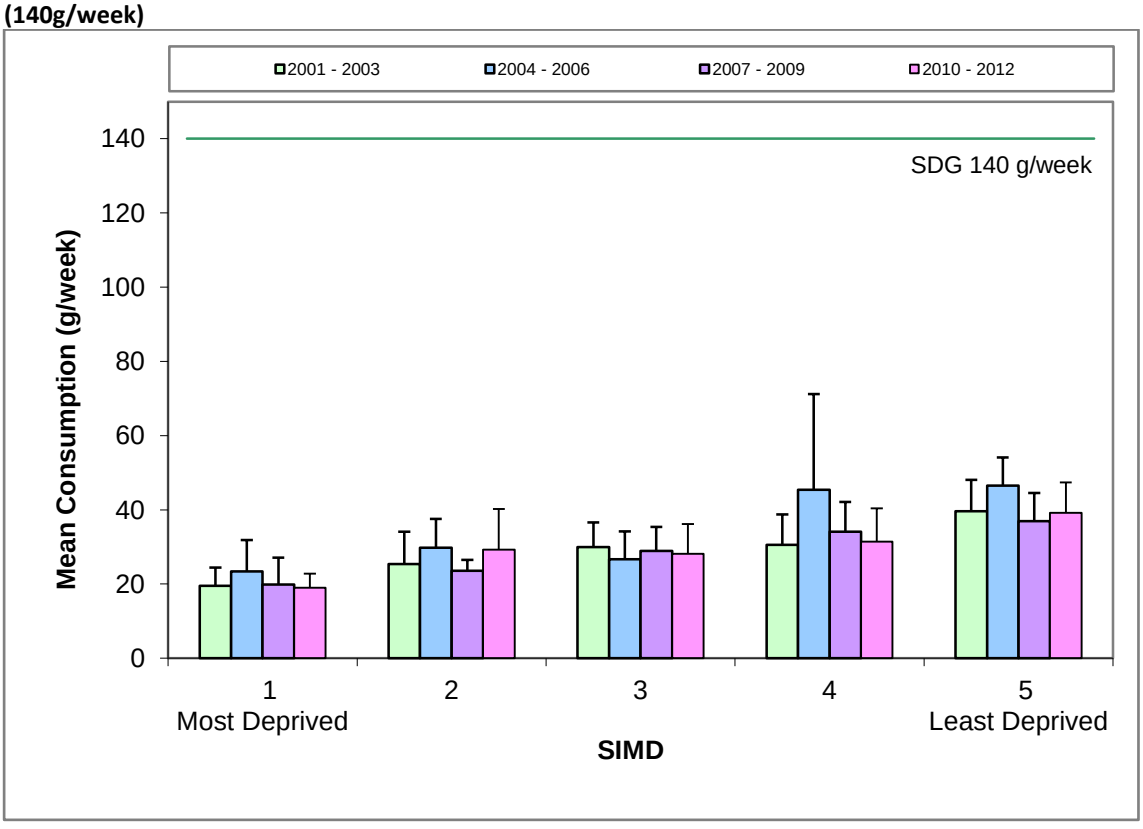


Figure 5: Mean (with 95% CI) total red meat consumption by year 2001 - 2012 compared to Scottish Dietary Goal (<70/day)

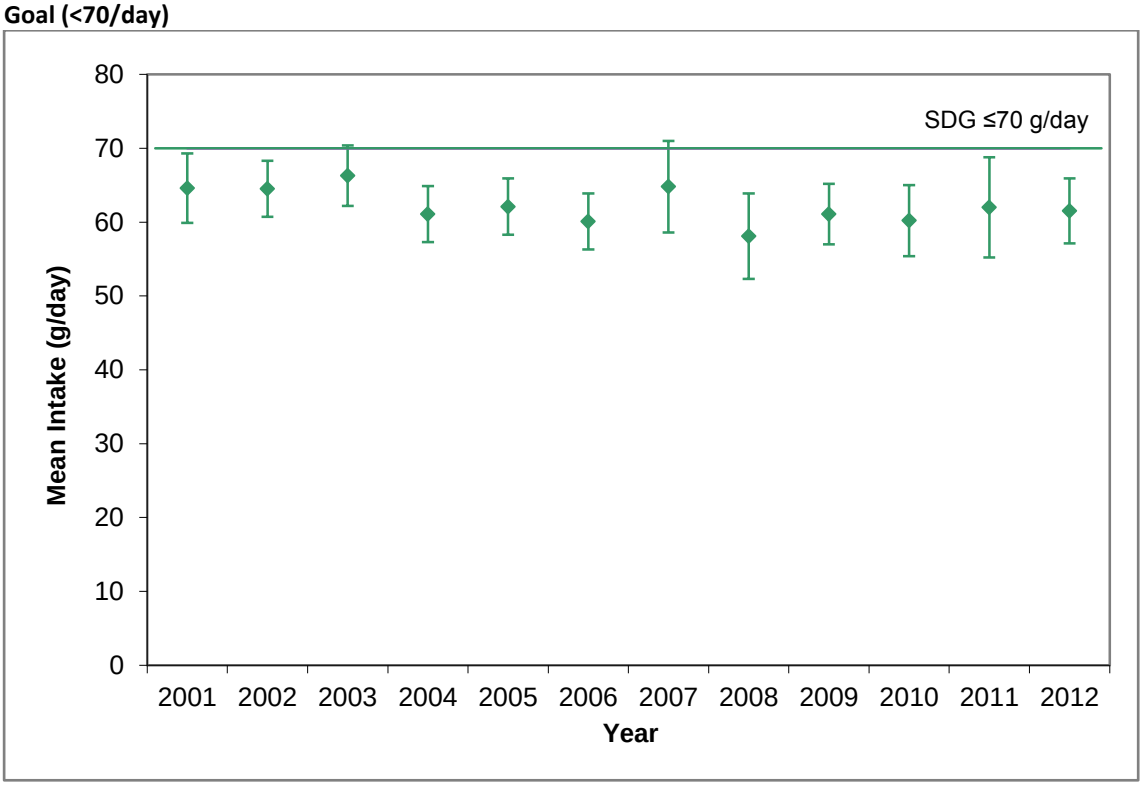


Figure 6: Mean (with 95% CI) total red meat consumption by SIMD quintile compared to Scottish Dietary Goal (<70/day)

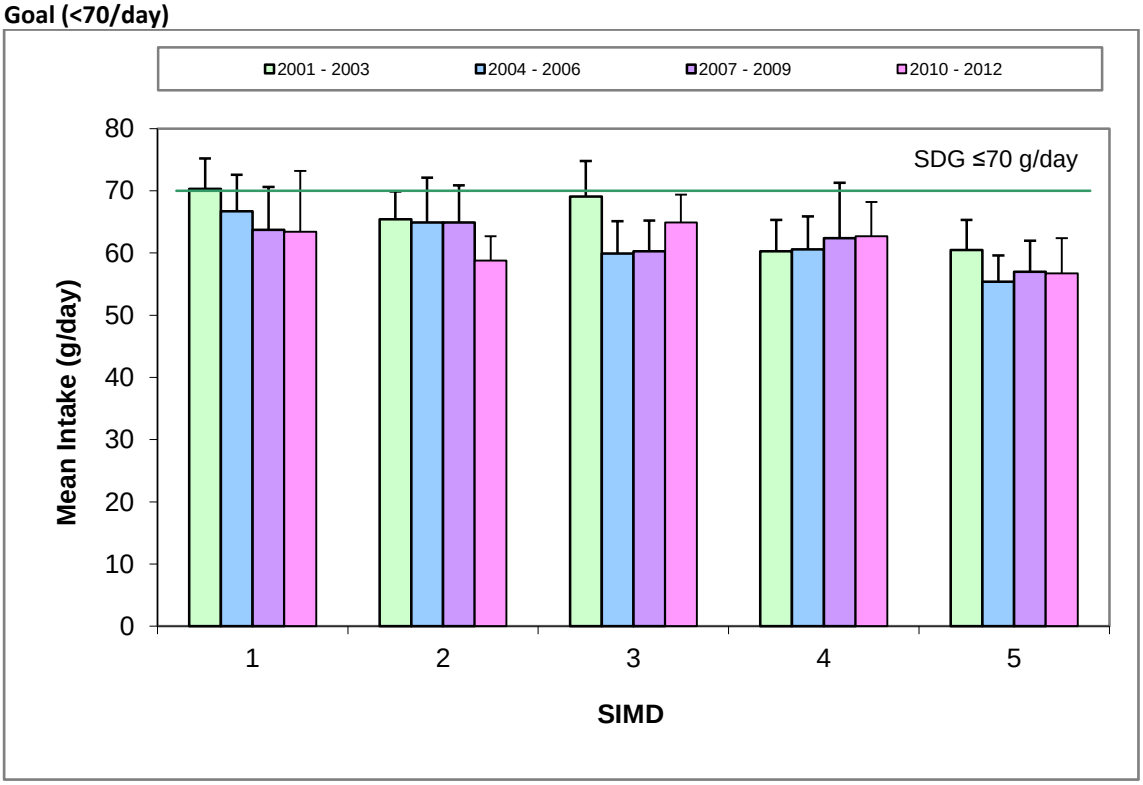


Table 4: Intake of Scottish Dietary Goal Nutrients by Year, 2001 to 2012 - EFS / LCF data (units/person/day)

Nutrient	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*
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	
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 - LCF 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
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)

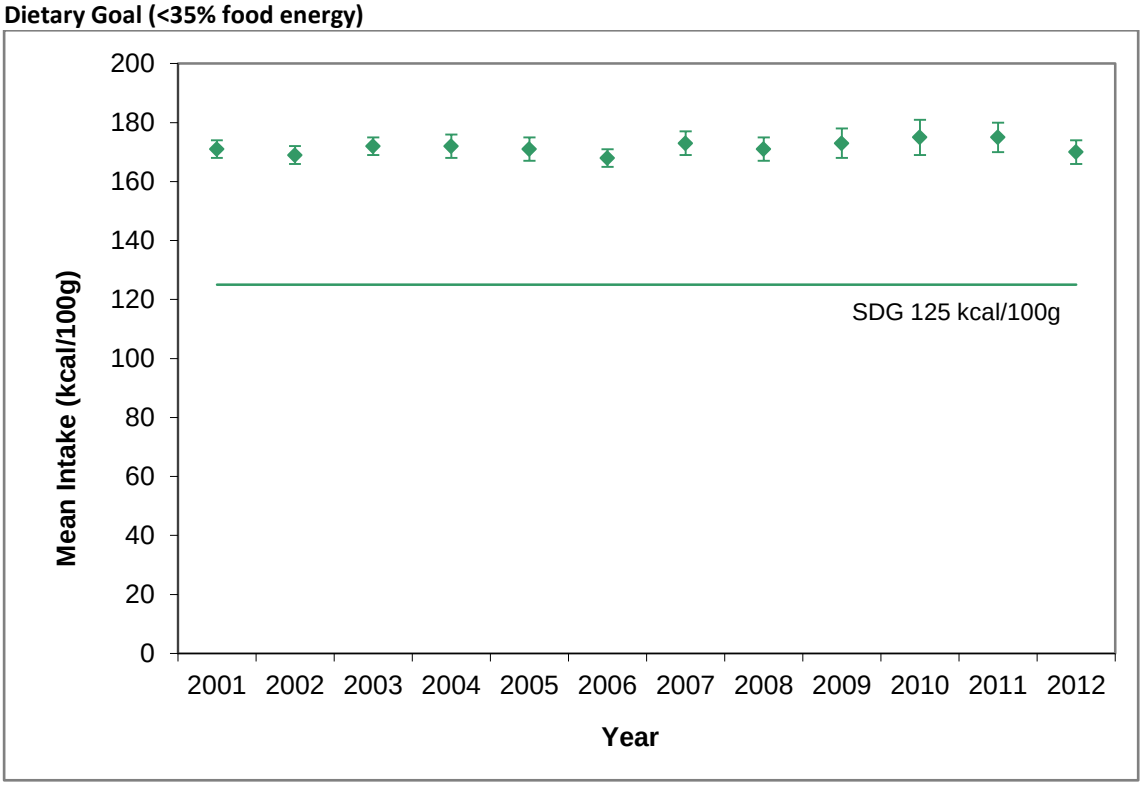


Figure 8: Mean (with 95% CI) energy density (food and milk) by SIMD quintile compared to Scottish Dietary Goal (<35% food energy)

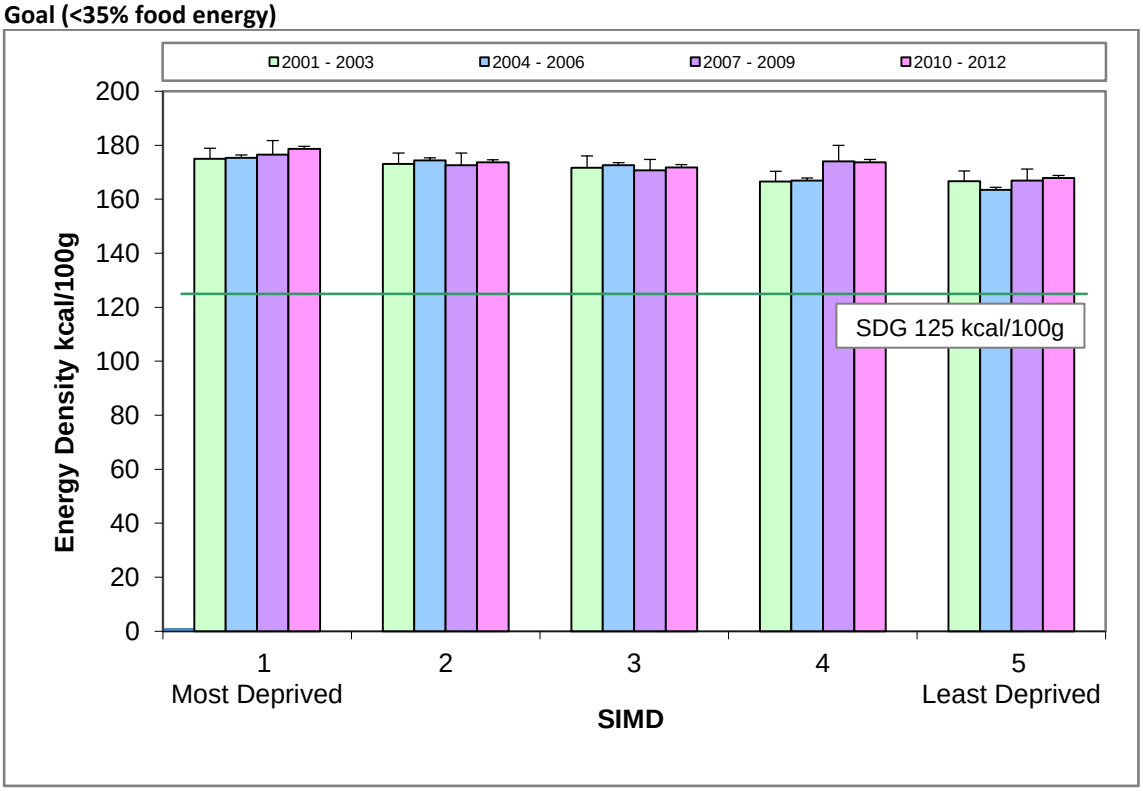


Figure 9: Mean (with 95% CI) fat intake by year 2001 - 2012 compared to Scottish Dietary Goal (<35% food energy)

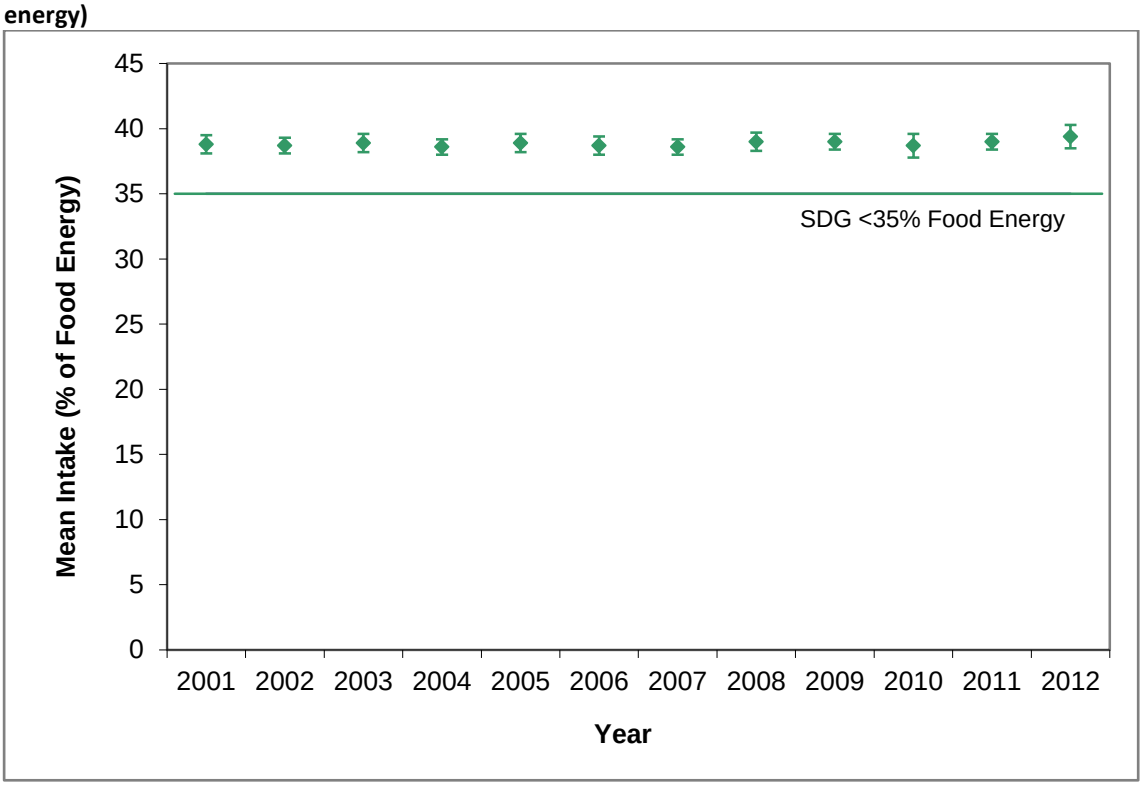


Figure 10: Mean (with 95% CI) fat intake by SIMD quintile compared to Scottish Dietary Goal (<35% food energy)

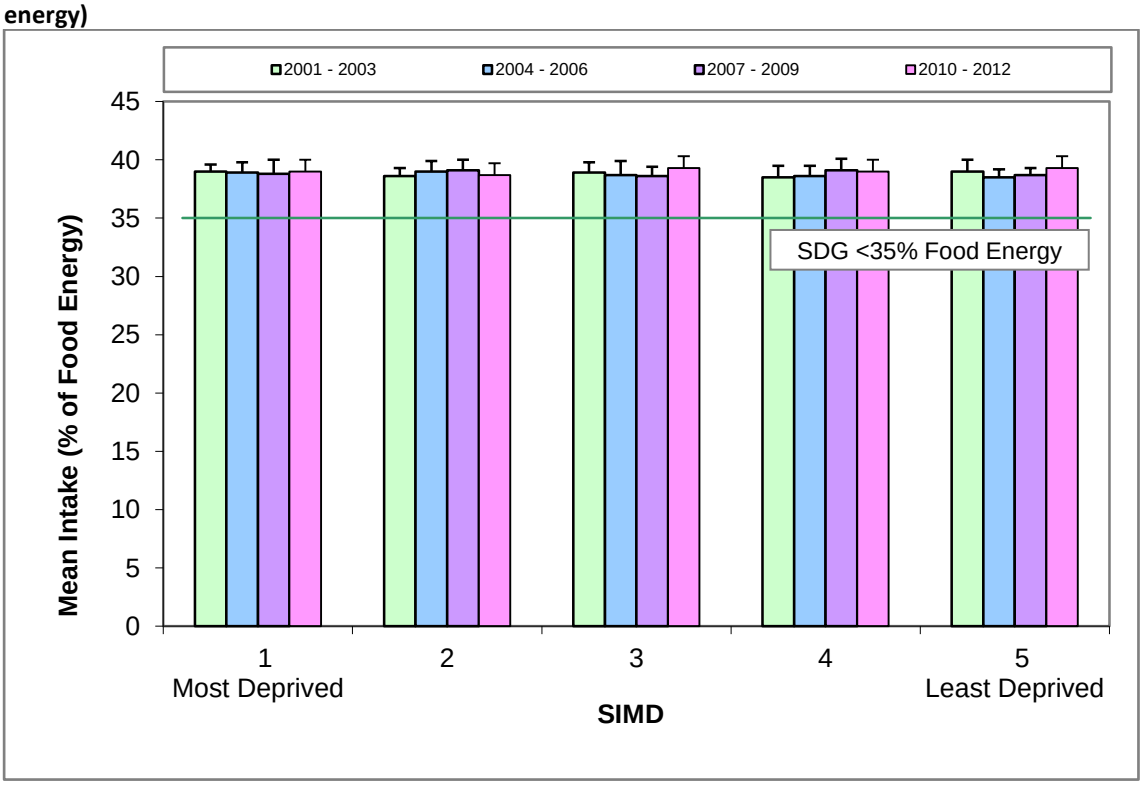


Figure 11: Mean (with 95% CI) saturated fat intake by year 2001 - 2012 compared to Scottish Dietary Goal (<11% food energy)

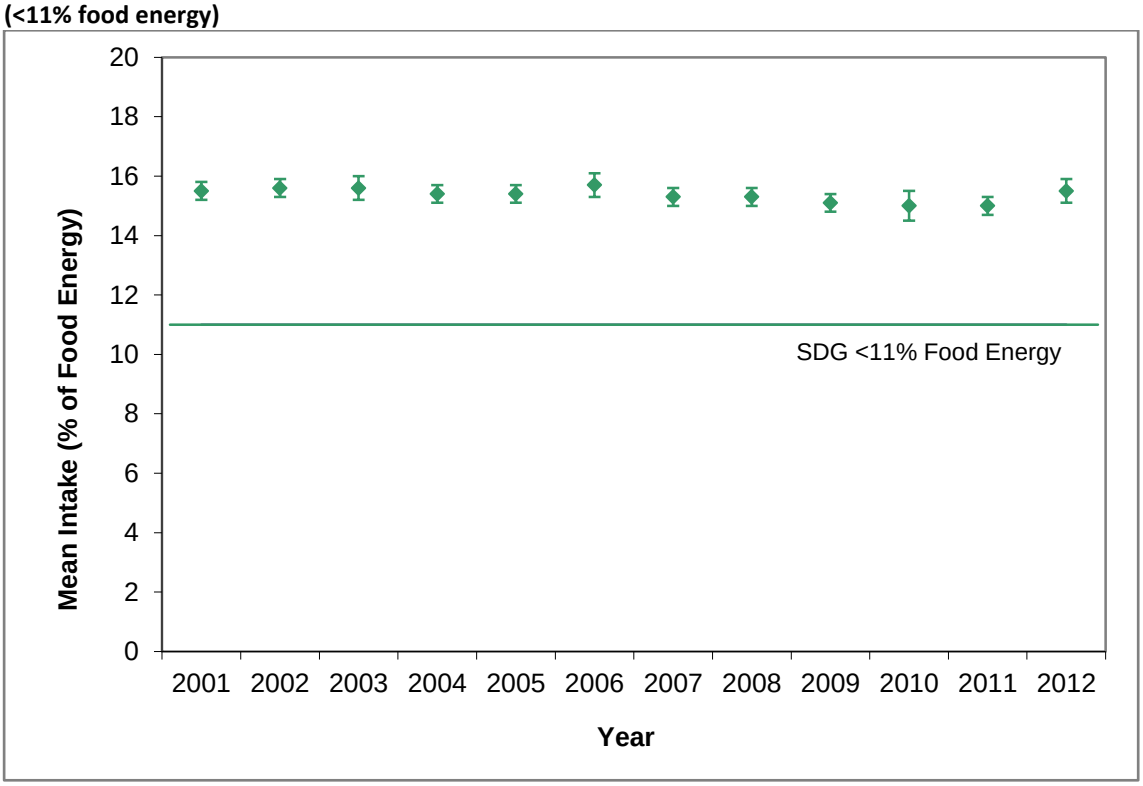


Figure 12: Mean (with 95% CI) saturated fat intake by SIMD quintile compared to Scottish Dietary Goal (<11% food energy)

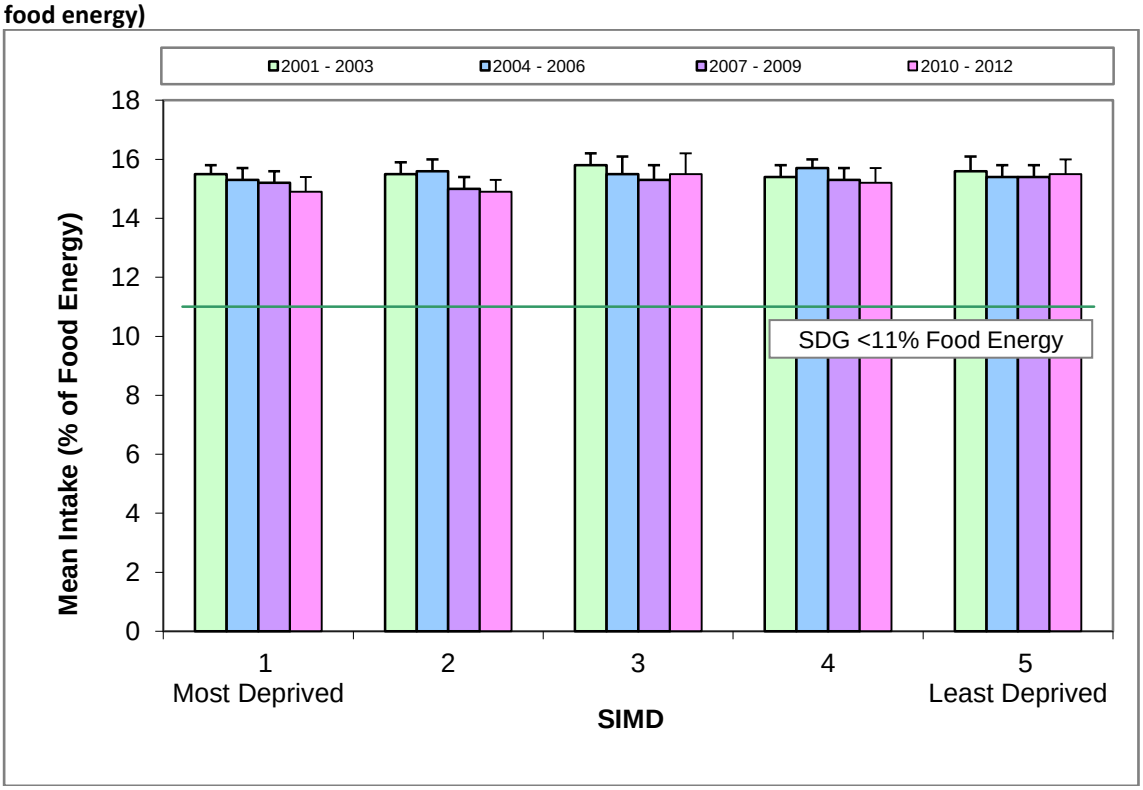


Figure 13: Mean (with 95% CI) NMES intake by year 2001 - 2012 compared to Scottish Dietary Goal (<11% food energy)

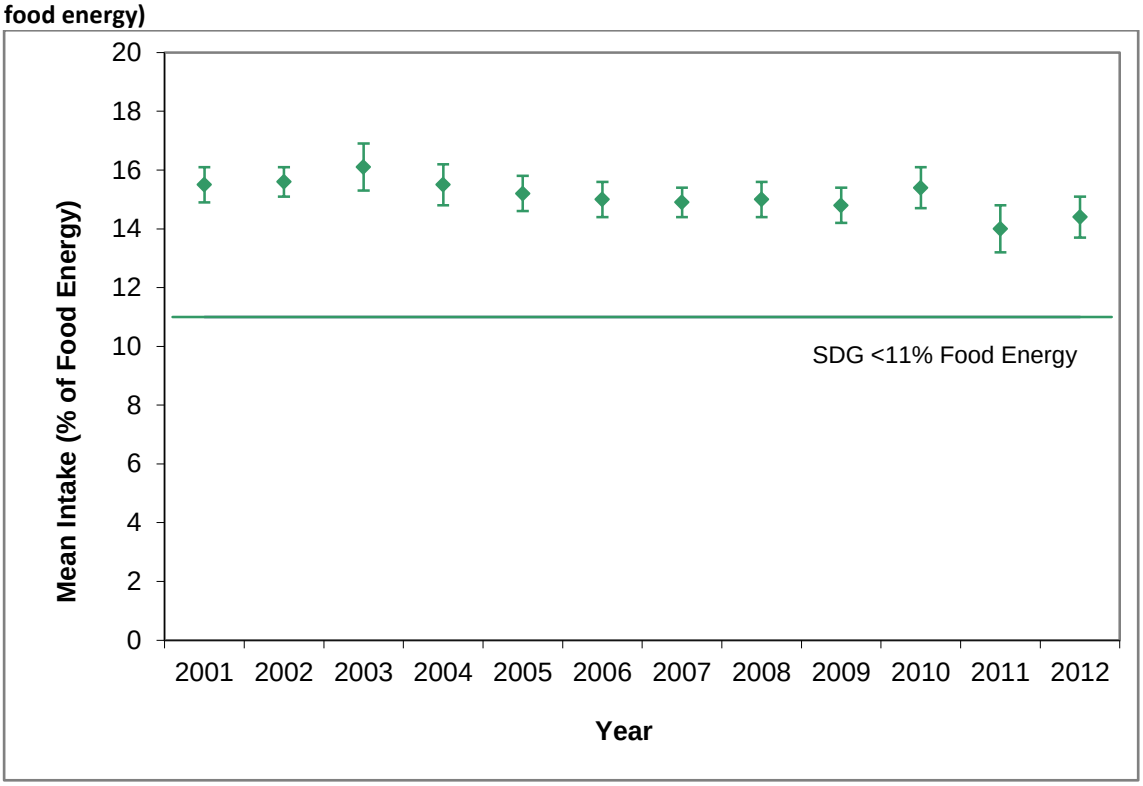


Figure 14: Mean (with 95% CI) NMES intake by SIMD quintile compared to Scottish Dietary Goal (<11% food energy)

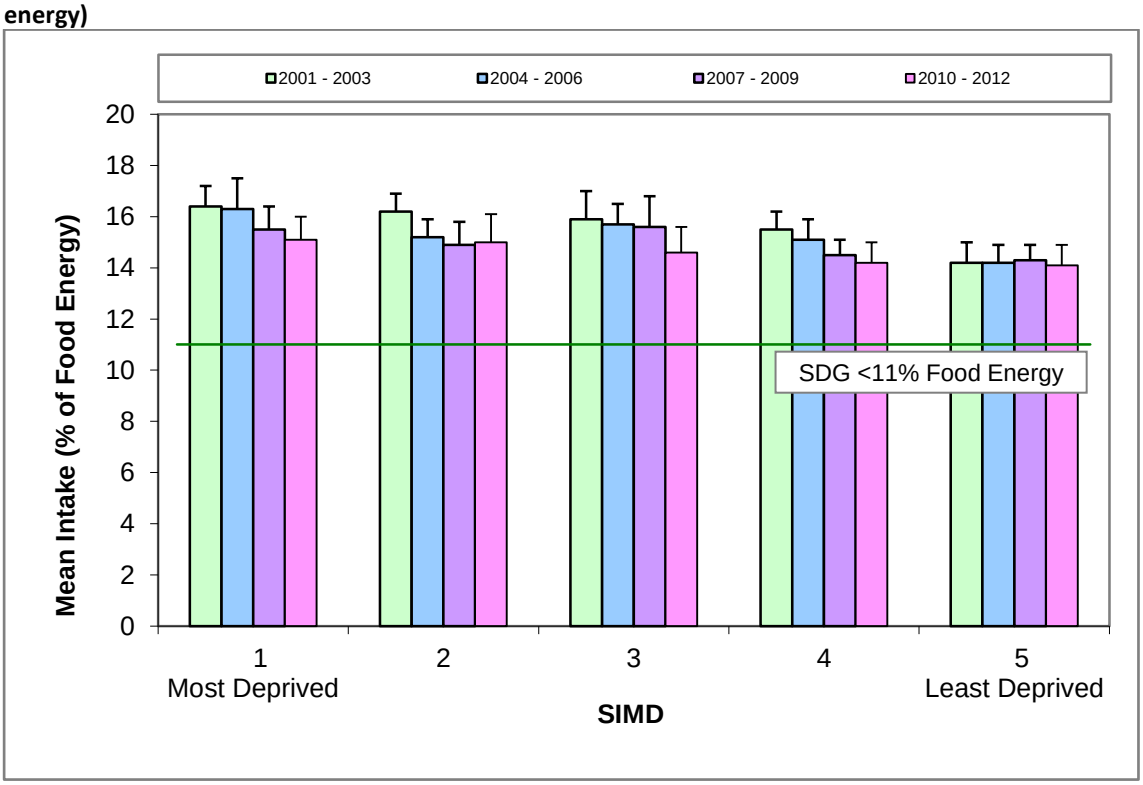


Figure 15: Mean (with 95% CI) NSP intake by year 2001 - 2012 compared to Scottish Dietary Goal (18 g/day)

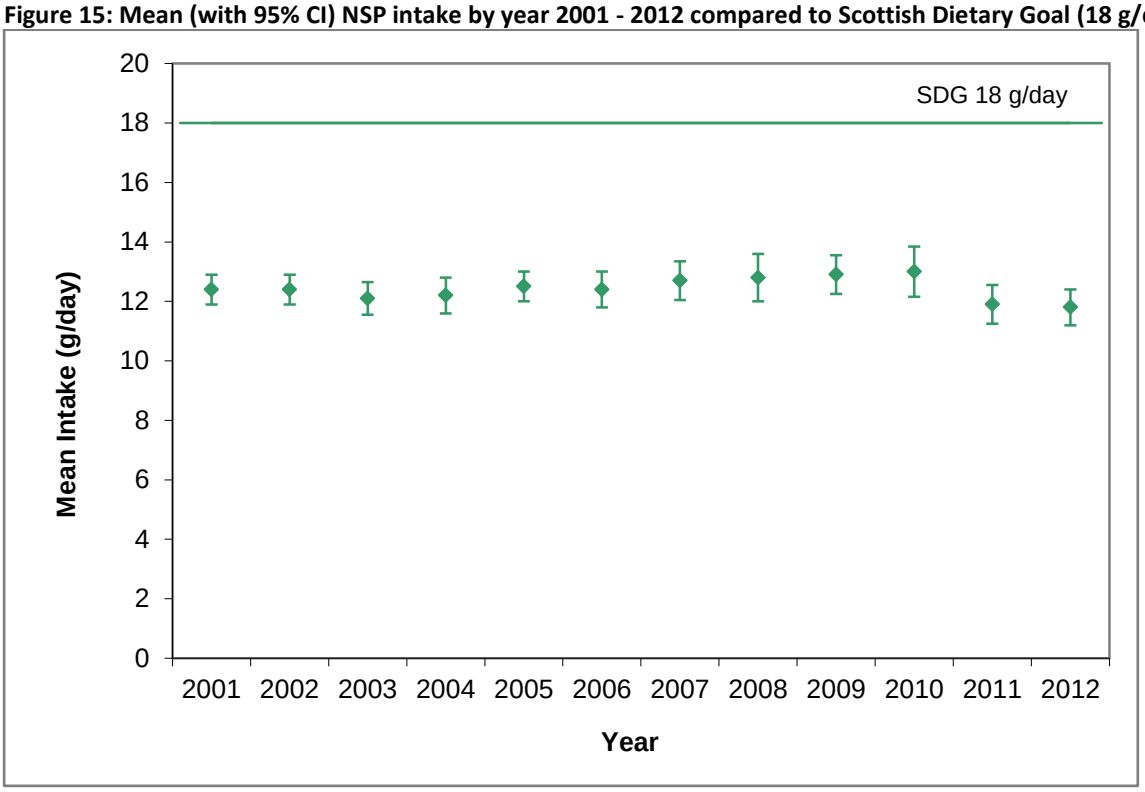


Figure 16: Mean (with 95% CI) NSP intake by SIMD quintile compared to Scottish Dietary Goal (18 g/day)

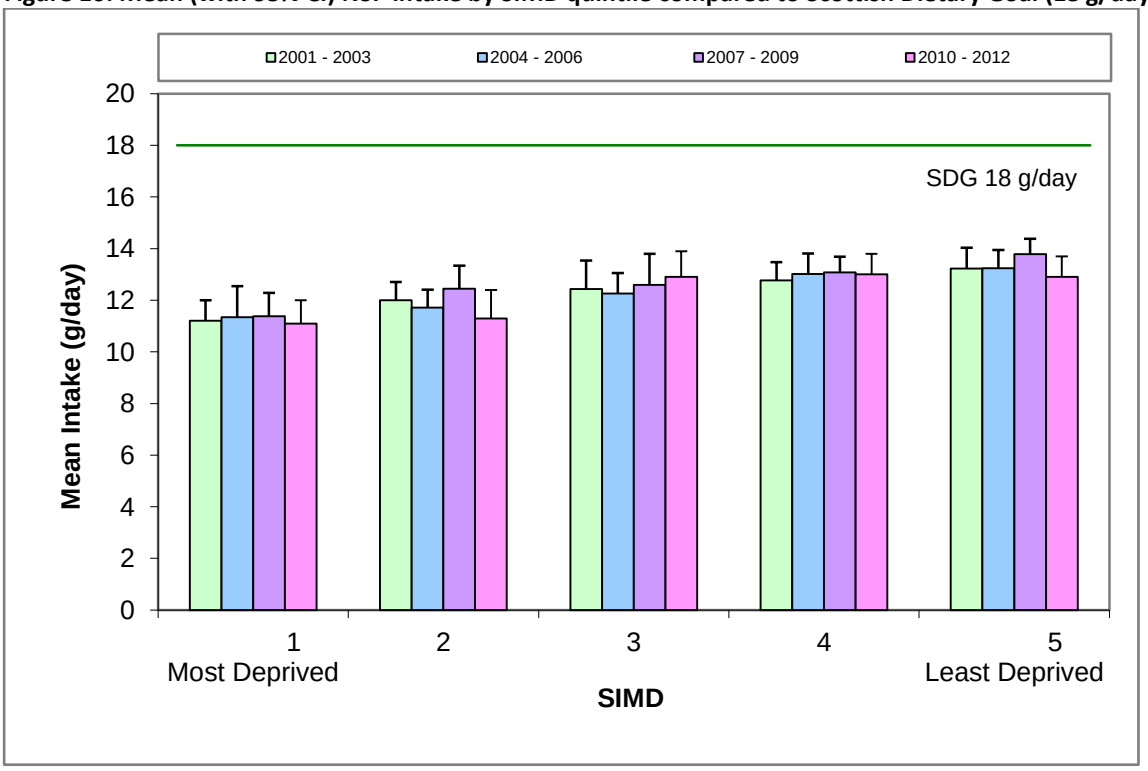


Table 6: Consumption of Additional Foods and Drinks Indicative of Diet Quality (Table A) by Year, 2001 to 2012 - EFS / LCF data (g/person/day)

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

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

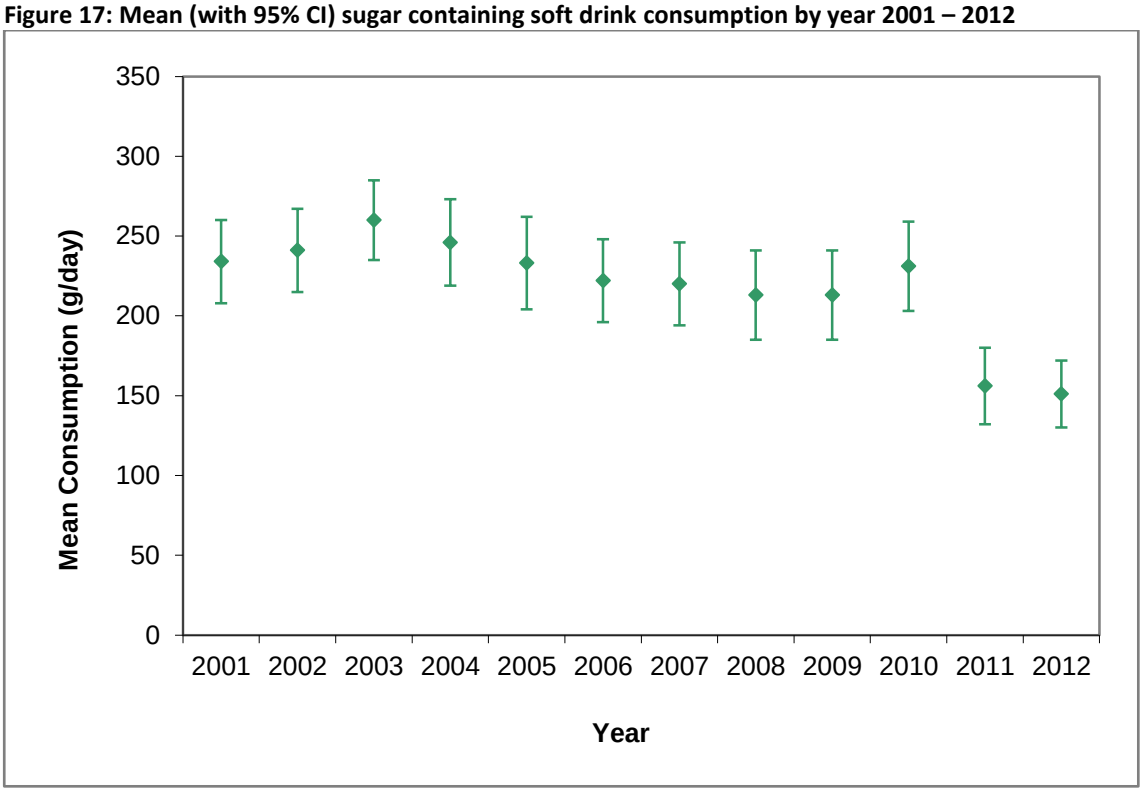


Figure 18: Mean (with 95% CI) sugar containing soft drink consumption by SIMD quintile

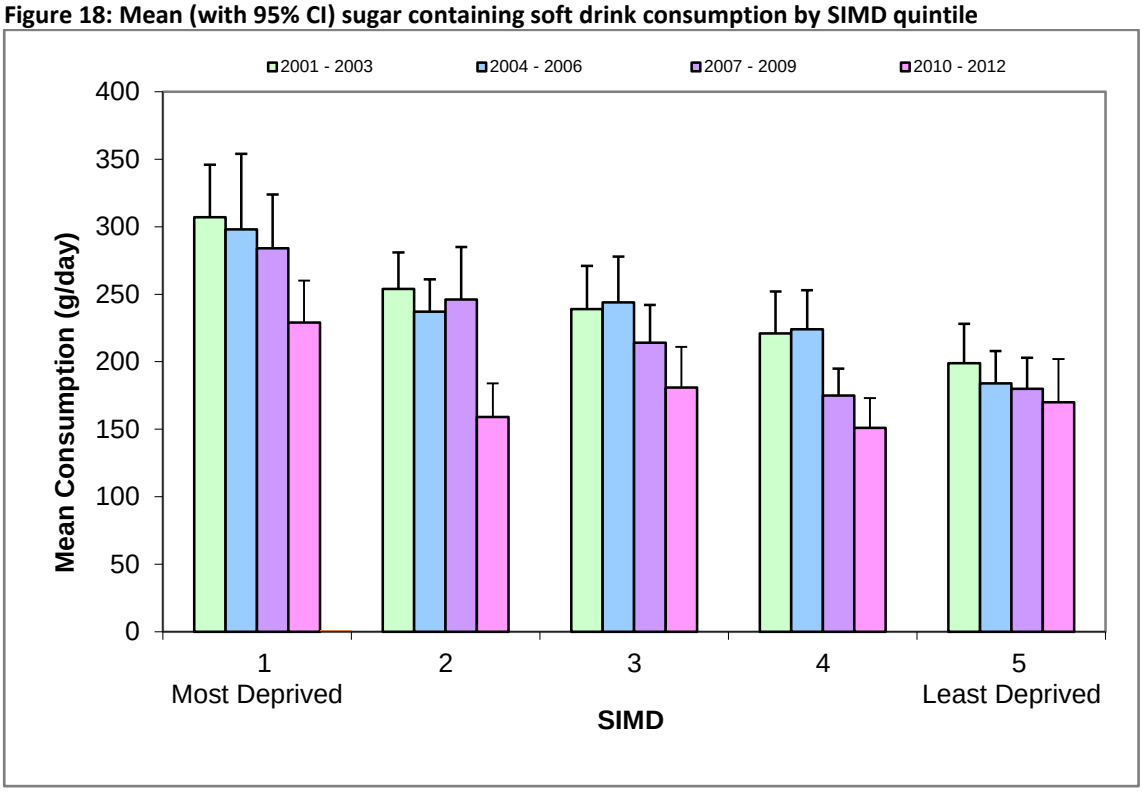


Table 8: Consumption of Additional Foods and Drinks Indicative of Diet Quality (Table A) by SIMD, 2010 to 2012 Combined - LCF data (g/person/day)

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 - LCF 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	11.9	14.0	13.2	12.4	*0.358*	1.3	0.11
	9.8, 13.7	10.4, 13.4	11.6, 16.4	11.6, 14.8	10.7, 14.1		-1.6, 4.3	-0.13, 0.34
Other Red Meat Products[1,2]	31.9	26.0	27.7	26.2	21.8	***<0.001***	-10.8	-0.40
	29.1, 34.8	23.2, 28.8	25.1, 30.4	22.4, 30.0	18.9, 24.7		-15.4, -6.2	-0.58, -0.23
Butter	6.0	6.9	7.7	7.8	7.8	*0.103*	2.3	0.32
	4.8, 7.3	5.2, 8.7	6.0, 9.3	6.0, 9.5	6.2, 9.5		-0.5, 5.0	-0.07, 0.70
Whole Milk	74.2	39.4	45.5	37.7	27.5	***0.001***	-50.7	-1.12
	51.3, 97.2	27.9, 50.8	32.2, 58.9	28.3, 47.2	18.9, 36.1		-78.4, -23.0	-1.74, -0.51
Semi-skimmed Milk	107	140	153	137	140	***0.041***	33.7	0.25
	85.5, 129	121, 159	128, 178	118, 156	123, 158		1.6, 65.9	0.01, 0.49
Skimmed Milk	10.8	11.7	28.1	10.8	15.6	*0.365*	4.6	0.30
	5.1, 16.5	6.3, 17.1	14.2, 42.0	5.4, 16.2	9.8, 21.4		-5.4, 14.6	-0.36, 0.96
Total Milk	214	205	245	207	200	*0.415*	-14.2	-0.07
	195, 233	181, 229	219, 270	183, 231	182, 219		-48.8, 20.4	-0.23, 0.10
White Fish	69.3	69.5	83.8	81.7	100	***0.014***	38.1	0.47
	51.4, 87.2	52.3, 86.7	66.6, 101	65.4, 97.9	86.4, 114		8.2, 68.0	0.10, 0.84
Fresh Potatoes	46.3	45.6	45.6	54.4	39.7	*0.649*	-3.1	-0.07
	36.4, 56.2	38.5, 52.7	38.6, 52.7	47.1, 61.8	34.2, 45.2		-15.4, 9.3	-0.33, 0.20
Processed Potatoes	34.7	30.3	30.5	27.5	23.5	***0.001***	-13.2	-0.45
	29.3, 40.0	26.1, 34.4	26.3, 34.7	23.5, 31.6	20.6, 26.3		-20.3, -6.0	-0.69, -0.21
Savoury Snacks	13.1	12.0	12.2	13.2	11.3	*0.325*	-1.4	-0.12
	11.1, 15.1	10.3, 13.8	10.6, 13.9	11.6, 14.8	9.5, 13.1		-4.2, 1.4	-0.34, 0.11
Takeaway Foods	20.3	20.7	21.8	17.0	17.6	*0.212*	-4.5	-0.23
	15.5, 25.0	16.2, 25.1	17.4, 26.2	12.3, 21.7	14.5, 20.7		-11.7, 2.8	-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 2 & 4 of Barton et al., 2012 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

Table 10: Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Scottish Dietary Goal Foods EFS/LCF 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 2 & 4 of Barton et al., 2012 for methodology; [7]The results are weighted to the Scottish population, the number provided is approximately 1000th of the Scottish population

Table 11: Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Dietary Goal Nutrients EFS/LCF data (units/person/day)

	2001-2003	2004-2006[1]	2007-2009	2010-2012		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	***P-value***	**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
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

Table 12: 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/LCF 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

Table 13: Slope Index of Inequality (SII) and Relative Index of Inequality (RII) for the relation of SIMD quintiles on Consumption of Additional Foods and Drinks Indicative of Diet Quality – EFS/LCF 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