

# **Estimation of food and nutrient intakes from Living Costs and Food Survey\* data in Scotland 2001-2014**

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\*Expenditure and Food Survey renamed Living Costs and Food Survey in 2008

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## 1.0 Background and Methodology

The purpose of this report is to add an additional year's data for 2014 to the estimated food and nutrient intakes presented for 2001 to 2012 by Wrieden and Barton (2015) and 2013 by Barton et al. (2015). The background and methodology are as previously reported in Wrieden and Barton (2015). These additional results are provisional and will not be finalised until a full update is published in September 2017.

As per previous reports, the primary food and nutrient tables (Tables 2 to 5) have been organised to match the revised 2013 Dietary Goals for Scotland (SDGs) (**Table 1**) (Scottish Government, 2013). Whilst it is acknowledged that the SDGs have been updated (Scottish Government, 2016), as the Living Costs and Food Survey (LCFS) data being presented in this report precedes this change, this report has focussed on the 2013 SDGs. Also in the latest revision of the SDGs, definitions of sugar and fibre changed from non-milk extrinsic sugars (NMES) to free sugars, and non-starch polysaccharide (NSP) to fibre measured using the AOAC (Association of Official Analytical Chemists) method in line with the recent SACN Carbohydrates and Health report (SACN, 2015). However, there is currently no nutrient data available for free sugars and AOAC fibre for the LCFS. Data on additional foods and drinks indicative of diet quality are provided in tables 6 to 9.

Results are presented as population means (i.e. includes consumers and non-consumers) with 95% confidence intervals (95% CI) for household and eating out foods combined.

**Table 1: Dietary Goals for Scotland (Scottish Government, 2013)**

<b>Calories</b>	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
<b>Fruit &amp; Vegetables</b>	Average intake of a variety of fruit and vegetables to reach at least 5 portions per person per day (> 400g per day)
<b>Oily Fish</b>	Oil rich fish consumption to increase to one portion per person (140g) per week
<b>Red Meat</b>	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*
<b>Fats</b>	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*
<b>Sugar</b>	Average intake of NMES <sup>1</sup> to reduce to less than 11% of food energy in children and adults
<b>Salt</b>	Average intake of salt to reduce to 6g per day*
<b>Fibre</b>	An increase in average consumption of fibre <sup>2</sup> to increase to 18g/day by increasing consumption of wholegrains, pulses and vegetables

\*Not monitored using data from the LCFS; \*\*Calculated from food and milk. <sup>1</sup>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, biscuits, sweets, breakfast cereals and soft drinks; <sup>2</sup>Non starch polysaccharide (NSP) as measured by Englyst method

## 2.0 Results

### 2.1 Food Consumption Relating to the Scottish Dietary Goals (SDGs)

#### *Fruit and Vegetables*

Between 2001 and 2014 there was no significant increase in intakes of fruit and vegetables. **Table 2** and **Figure 1** show that there had been a small increase in mean consumption of fruit and vegetables in the population from 2001 to 2010. The mean 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, the mean intake was 253g/day in 2014. This equates to just over three portions per day and is considerably lower than the goal of at least 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 (and vegetable) juice increases fruit and vegetable consumption figures by less than half a portion per day.

**Table 3** shows a clear gradient in fruit and vegetable consumption by Scottish Index of Multiple Deprivation (SIMD) quintile: intakes of both fruit and vegetables increased as level of deprivation decreased. In the most deprived quintile (Quintile 1), mean daily consumption of fruit and vegetables was 201g compared with 311g in the least deprived quintile (Quintile 5) for 2012 to 2014. This linear trend was highly significant ( $P < 0.001$ ).

#### *Fish*

There was no significant change in oil rich fish consumption between 2001 and 2014. Despite a gradual increase in the mean intake of oil rich fish from 27g/week in 2001 to 39g/week in 2005, the mean intake in 2014 was 28g/week (**Table 2, Figure 2**), which is considerably less than the SDG of 140g/week. Consumption of oil-rich fish was highest in the least deprived quintile (Quintile 5) for 2012 to 2014, with a mean weekly consumption of 34g compared to 18g in the most deprived quintile (Quintile 1) ( $P$ -value for linear association  $< 0.001$ ) (**Table 3**).

#### *Total Red Meat*

There has been a significant reduction in the intake of total red meat since 2001. Mean daily consumption has decreased from 65g in 2001 to 55g in 2014 (**Table 2, Figure 3**) ( $P$ -value for linear association  $< 0.001$ ). 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). It should be noted that the SDG of  $\leq 70$ g per day is based on intake calculated from the UK National Diet and Nutrition Survey and not household purchase data. Due to methodological differences between surveys, the amounts presented in this report, although similar, should only be used to assess change over time rather than considering the absolute amount. Consumption of total red meat was lowest in the least deprived quintile (Quintile 5) for 2012 to 2014, with a mean daily consumption of 52g compared to 64g in the most deprived quintile (Quintile 1) ( $P$ -value for linear association = 0.040) (**Table 3**).

### 2.2 Nutrient Intake Relating to the SDGs by Year

#### *Energy Density*

Energy density, calculated from food and milk, has increased significantly over time despite a dip in 2012 ( $P$ -value for linear association = 0.007) (**Table 4, Figure 4**). The mean energy density in 2014 was 175 kcal/100g. Energy density was significantly lower in the least deprived quintile of SIMD (Quintile 5) at 168 kcal/100g, compared with 181

kcal/100g in the most deprived quintile (Quintile 1) (P-value for linear association = 0.030) for 2012 to 2014 (**Table 5**).

#### *Total Fat and Saturated Fat*

There has been no evidence of progress towards the SDG for total fat (average intake to reduce to no more than 35% food energy) (**Table 4, Figure 5**) with the mean intake increasing from 38.8% in 2001 to 39.5% in 2014 (P-value for linear association = 0.018). Whilst a significant reduction over time was found for the percentage of energy from saturated fat, the mean intake rose in 2012, but has gradually fallen since (P-value for linear association = 0.028). The mean percentage of food energy contributed by saturated fat was 15.3% in 2014, which is considerably higher than the SDG of no more than 11% food energy (**Table 4, Figure 6**). **Table 5** shows that there was no statistical association between SIMD quintile and the percentage of food energy from total or saturated fat for 2012 to 2014.

#### *Non-milk Extrinsic Sugars*

A significant reduction over time was found for the percentage of energy from non-milk extrinsic sugars (NMES) (**Table 4, Figure 7**). The mean percentage of food energy contributed by NMES rose from 2001 to 2003 (from 15.5% to 16.1%) but fell to 14.1% in 2014. The overall decrease in the percentage of energy from NMES was highly significant (P-value for linear association <0.001) however it remains very high compared to the recommendation of no more than 11% food energy. **Table 5** shows that there was no statistical association between the percentage of food energy from NMES and SIMD quintile for 2012 to 2014.

#### *Non-starch Polysaccharide*

There has been no change in the mean intake of non-starch polysaccharide (NSP) between 2001 and 2014 (**Table 4, Figure 8**), with the mean intake remaining considerably below the previous SDG of an average intake of 18g/day (equivalent to 23-24g/day AOAC fibre) and updated SDG of 30g/day AOAC fibre. Mean NSP intake was highest in 2010. Mean intake was 12g/day in 2001 and this rose to the highest level of 13g/day in 2010, before falling to 12g/day in 2014. NSP intake was significantly higher in the least deprived quintile of SIMD (Quintile 5) at 13g/day compared with 11g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-value for linear association <0.001) (**Table 5**).

#### *Energy*

Energy intake is not monitored using data from the LCFS, and is provided for comparison purposes only. A significant reduction over time was found in energy intake (**Table 4**), with a mean intake in 2001 of 2066kcal/day compared to 1859kcal/day in 2014 (P-value for linear association <0.001). **Table 5** shows that there was no statistically significant linear association between food energy intake and SIMD quintile for 2012 to 2014.

#### *Protein, Carbohydrate, Total Energy and Alcohol*

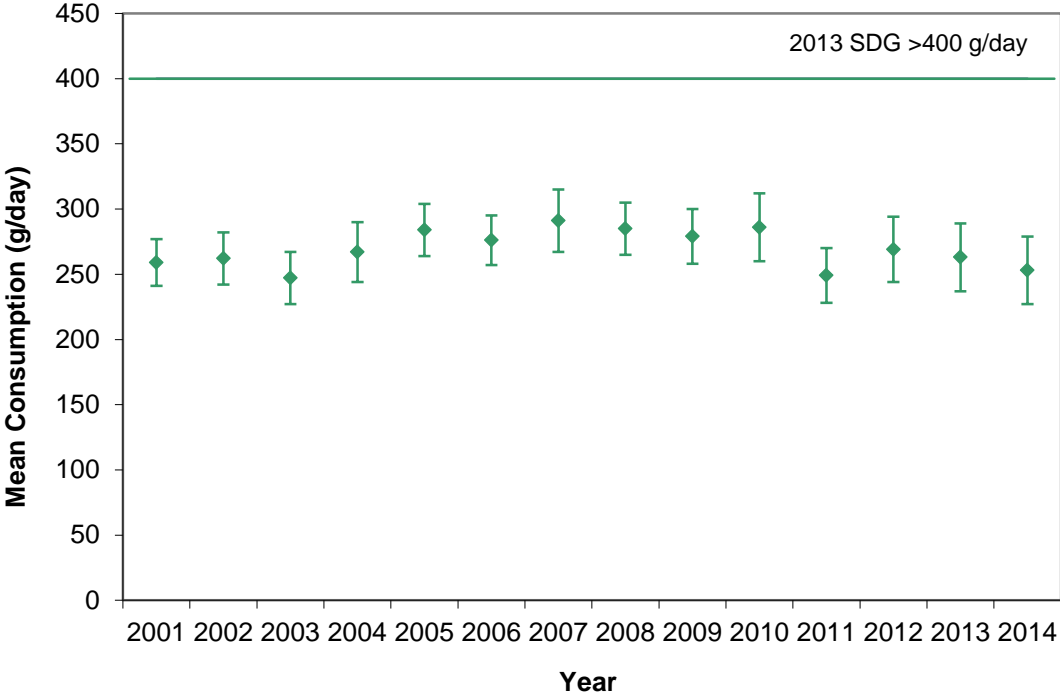
Protein, carbohydrate, total energy and alcohol intakes are not part of the 2013 Scottish Dietary Goals and are provided for comparison purposes only (**Tables 4 and 5**).

**Table 2: Mean Consumption<sup>1</sup> of 2013 Scottish Dietary Goal Foods by Year, 2001 to 2014 - EFS / LCFS data (g/person/day with the exception of fish: g/person/week)**

Food <sup>2</sup>	SDG	2001 Mean 95% CI	2002 Mean 95% CI	2003 Mean 95% CI	2004 Mean 95% CI	2005 Mean 95% CI	2006 <sup>3</sup> 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	2013 Mean 95% CI	2014 Mean 95% CI	<i>P-value for Linear Association</i>	<i>P-value for Overall Association</i>
Fruit and Vegetables <sup>4,5</sup>	>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	263 237, 289	253 228, 279	0.991	0.061
Fruit <sup>4</sup>		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	134 116, 151	130 115, 145	0.737	<b>0.008</b>
Fruit (and vegetable) Juice		44 37, 52	44 37, 51	39 33, 45	38 31, 44	50 43, 57	48 42, 54	53 44, 61	45 39, 51	43 36, 50	48 39, 56	40 34, 47	45 31, 59	43 33, 53	35 29, 41	0.441	<b>0.025</b>
Vegetables <sup>5</sup>		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	129 116, 143	123 109, 137	0.562	0.462
Oil Rich Fish	140g per week	27 23, 31	29 23, 35	31 25, 37	32 25, 38	39 23, 55	34 27, 41	30 25, 36	30 24, 37	28 23, 33	26 22, 30	35 26, 43	28 23, 32	27 22, 31	28 21, 35	0.385	0.401
Total Red Meat <sup>6</sup>	≤70g per day	65 60, 69	65 61, 68	66 62, 70	61 57, 65	62 58, 66	60 56, 64	65 59, 71	58 52, 64	61 57, 65	60 55, 65	62 55, 69	61 57, 66	56 51, 61	55 50, 61	<b>&lt;0.001</b>	<b>0.016</b>
n Households		619	585	546	590	566	577	500	494	543	464	495	477	410	433		
n People		1414	1342	1266	1329	1285	1365	1093	1058	1222	1030	1088	1063	930	974		
n People Weighted <sup>7</sup>		5015	4967	4952	4948	4939	4906	5040	5143	5181	5109	5117	5111	5233	5260		

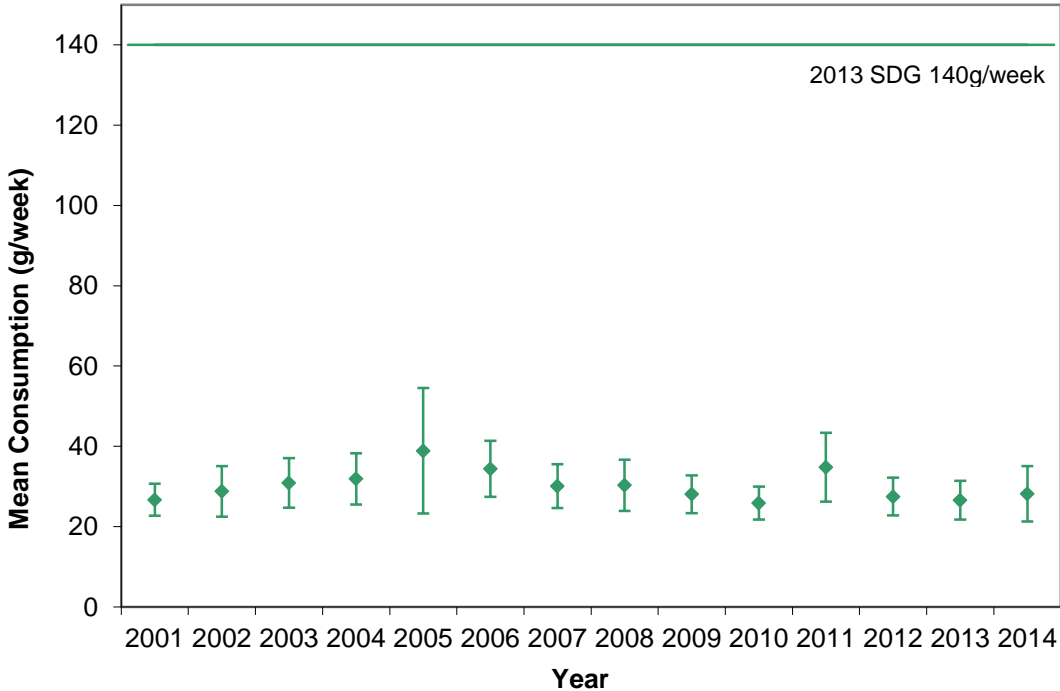
<sup>1</sup>Household and eating out consumption combined; <sup>2</sup>See appendices 1 & 3 of Wrieden and Barton (2015) for methodology; <sup>3</sup>From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; <sup>4</sup>Fruit includes fruit and vegetable juice; <sup>5</sup>Vegetables include baked beans; <sup>6</sup>Meat portion only (includes red meat products e.g. sausages, meat pies, burgers, and pate); <sup>7</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population

**Figure 1: Mean [95% CI] fruit<sup>1</sup> and vegetable<sup>2</sup> consumption by year 2001-2014 compared to the 2013 Scottish Dietary Goal (>400g/day)**



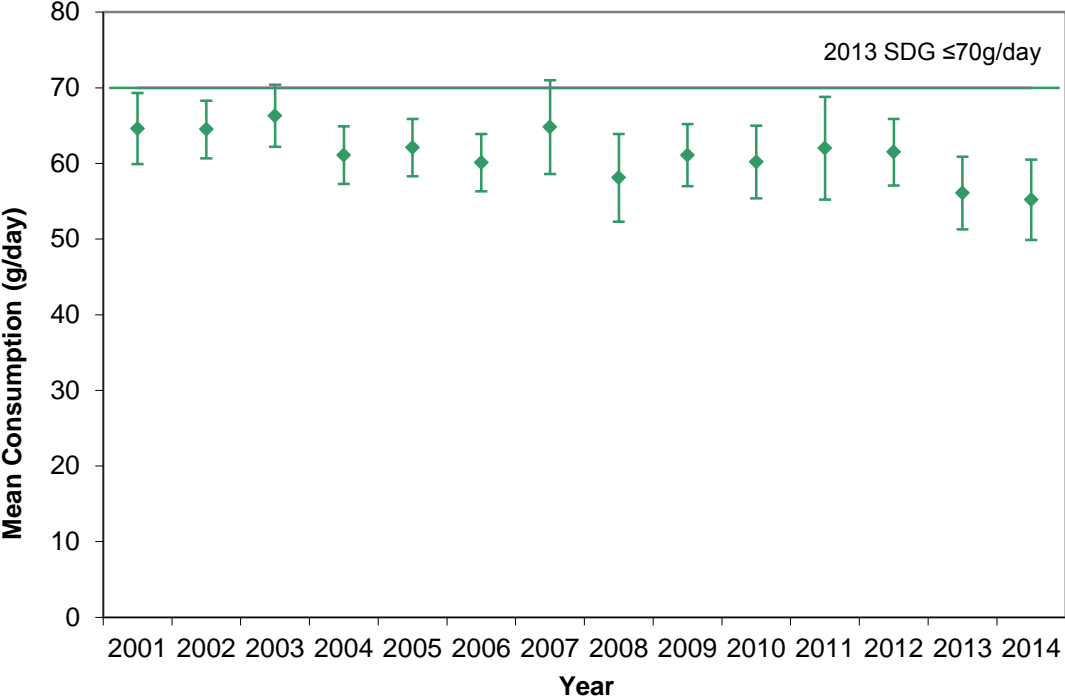
<sup>1</sup>Fruit includes fruit and vegetable juice; <sup>2</sup>Vegetables includes baked beans; P (linear association) = 0.991; P (overall association) = 0.061

**Figure 2: Mean [95% CI] oil rich fish consumption by year 2001-2014 compared to the 2013 Scottish Dietary Goal (140g/week)**



P (linear association) = 0.385; P (overall association) = 0.401

Figure 3: Mean [95% CI] total red meat<sup>1</sup> consumption by year 2001-2014 compared to the 2013 Scottish Dietary Goal ( $\leq 70\text{g/day}$ )



<sup>1</sup>Meat portion only; P (linear association) <0.001; P (overall association) = 0.016

**Table 3: Mean Consumption<sup>1</sup> of Scottish Dietary Goal Foods by SIMD Quintile, 2012 to 2014 Combined - LCFS data (g/person/day, with the exception of fish g/person/week)**

Food <sup>2</sup>	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	P-value for Overall Association
Fruit and Vegetables <sup>3,4</sup>	400g per day	201 179, 224	207 182, 232	278 237, 320	286 265, 307	311 288, 334	<0.001	<0.001
Fruit <sup>3</sup>		94 81, 106	101 85, 117	147 120, 173	145 129, 162	169 151, 188	<0.001	<0.001
Fruit (and vegetable) Juice		27 21, 34	33 25, 40	46 25, 66	40 33, 47	55 45, 65	<0.001	<0.001
Vegetables <sup>4</sup>		108 91, 125	106 95, 118	132 113, 150	141 129, 153	142 129, 155	<0.001	<0.001
Oil Rich Fish	140g per week	18 13, 23	20 14, 26	29 20, 37	33 24, 42	34 27, 41	<0.001	0.001
Total Red Meat <sup>5</sup>	≤70g per day	64 57, 70	58 53, 62	57 51, 62	59 54, 65	52 46, 58	0.040	0.073
n Households		210	268	279	270	293		
n People		461	584	631	629	662		
n People Weighted <sup>6</sup>		2442	2983	3420	3372	3387		

<sup>1</sup>Household and eating out consumption combined, <sup>2</sup>See appendices 1 & 3 of Wrieden and Barton (2015) for methodology; <sup>3</sup>Fruit includes fruit and vegetable juice; <sup>4</sup>Vegetables include baked beans; <sup>5</sup>Meat portion only (includes red meat products e.g. sausages, meat pies, burgers, and pate); <sup>6</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population \***Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived**

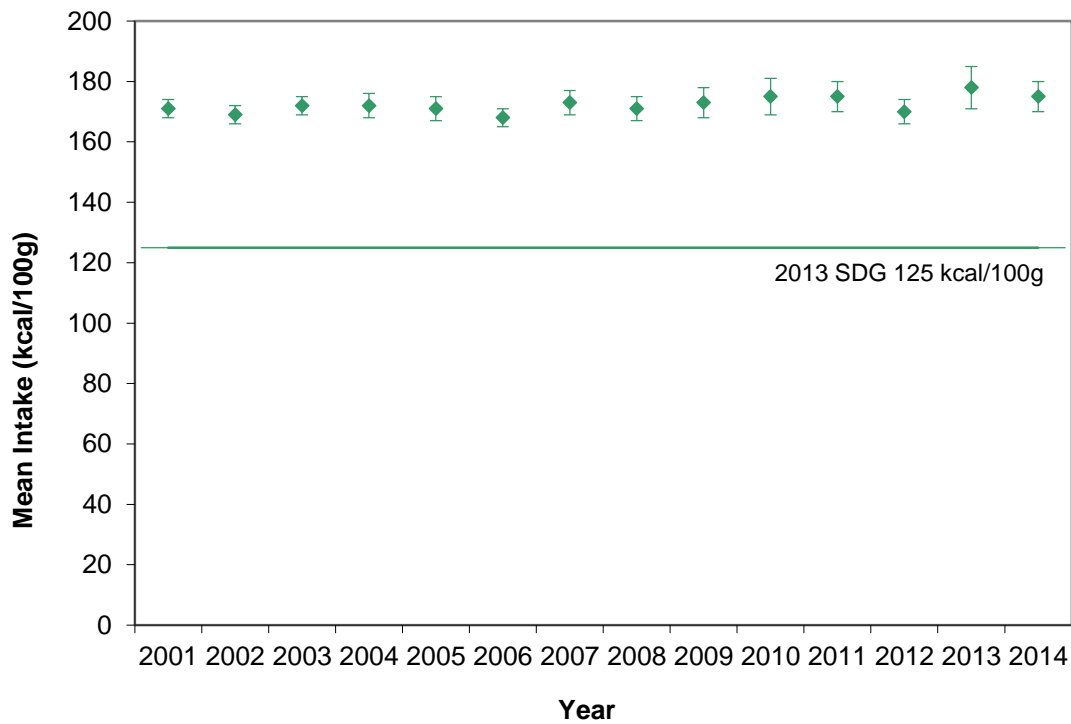


**Table 4: Mean Intake<sup>1</sup> of 2013 Scottish Dietary Goal Nutrients and Macronutrients by Year, 2001 to 2014 - EFS / LCFS data (units/person/day)**

Nutrient	2013 SDG	2001	2002	2003	2004	2005	2006 <sup>2</sup>	2007	2008	2009	2010	2011	2012	2013	2014	P-value for Linear Association	P-value for Overall 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	Mean 95% CI	Mean 95% CI		
Energy Density kcal/100g <sup>3</sup>	125kcal/ 100g	171	169	172	172	171	168	173	171	173	175	175	170	178	175	<b>0.007</b>	0.132
		168, 175	166, 172	169, 175	168, 176	167, 175	165, 172	169, 176	167, 175	168, 177	171, 178	170, 180	166, 174	171, 184	170, 179		
% 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	39.6	39.5	<b>0.018</b>	0.781
		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	38.7, 40.4	38.5, 40.5		
% 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	15.4	15.3	<b>0.028</b>	0.102
		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	14.9, 15.8	14.8, 15.8		
% 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	14.5	14.1	<b>&lt;0.001</b>	<b>0.008</b>
		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	13.6, 15.4	13.5, 14.8		
NSP	18g/day	12	12	12	12	12	12	13	13	13	13	12	12	12	12	0.108	0.363
		12, 13	12, 13	12, 13	12, 13	12, 13	12, 13	12, 13	12, 14	12, 13	12, 14	11, 13	11, 12	11, 13	11, 12		
Food Energy kcal		2066	2047	2044	1997	1999	1977	2081	2013	2022	2056	1856	1913	1919	1859	<b>&lt;0.001</b>	<b>0.002</b>
		1998, 2134	1983, 2112	1963, 2125	1920, 2074	1916, 2081	1908, 2045	1978, 2184	1890, 2137	1951, 2093	1945, 2167	1752, 1959	1828, 1999	1807, 2030	1764, 1955		
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	8.0	7.8	<b>&lt;0.001</b>	<b>0.002</b>
		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	7.6, 8.5	7.4, 8.2		
% Food Energy Protein		14.3	14.3	14.3	14.2	14.4	14.3	14.2	14.1	14.2	14.0	14.4	14.3	13.7	14.1	<b>0.020</b>	0.073
		14.1, 14.6	14.1, 14.6	14.0, 14.5	14.0, 14.5	14.1, 14.7	14.0, 14.6	14.0, 14.4	13.8, 14.4	13.9, 14.6	13.7, 14.3	14.1, 14.8	14.0, 14.5	13.5, 14.0	13.9, 14.4		
% Food Energy Carbohydrate		46.9	47.0	46.8	47.2	46.7	47.0	47.1	46.9	46.7	47.1	46.4	46.2	46.6	46.3	0.050	0.891
		46.1, 47.6	46.4, 47.6	46.0, 47.6	46.6, 47.8	46.0, 47.4	46.3, 47.7	46.4, 47.9	46.2, 47.5	46.0, 47.3	46.3, 48.0	45.7, 47.1	45.1, 47.2	45.8, 47.5	45.3, 47.3		
Total Energy kcal		2143	2120	2115	2065	2075	2054	2148	2077	2096	2129	1921	1983	1978	1926	<b>&lt;0.001</b>	<b>0.002</b>
		2072, 2214	2052, 2187	2032, 2198	1985, 2145	1990, 2160	1980, 2129	2041, 2254	1949, 2205	2027, 2165	2018, 2239	1816, 2027	1897, 2069	1863, 2093	1824, 2028		
Total Energy MJ		9.0	8.9	8.8	8.6	8.7	8.6	9.0	8.7	8.8	8.9	8.0	8.3	8.3	8.1	<b>&lt;0.001</b>	<b>0.002</b>
		8.7, 9.3	8.6, 9.2	8.5, 9.2	8.3, 9.0	8.3, 9.0	8.3, 8.9	8.5, 9.4	8.2, 9.2	8.5, 9.1	8.4, 9.4	7.6, 8.5	7.9, 8.7	7.8, 8.8	7.6, 8.5		
% Total Energy Alcohol		3.8	3.6	3.9	3.3	3.9	4.0	3.8	3.5	4.2	4.0	3.6	3.5	3.3	3.9	0.680	0.323
		3.3, 4.3	3.1, 4.1	3.4, 4.4	2.9, 3.7	3.5, 4.4	3.5, 4.4	3.2, 4.4	3.1, 3.8	3.7, 4.7	3.4, 4.5	3.0, 4.1	2.7, 4.3	2.7, 3.9	3.1, 4.6		
n Households		619	585	546	590	566	577	500	494	543	464	495	477	410	433		
n People		1414	1342	1266	1329	1285	1365	1093	1058	1222	1030	1088	1063	930	974		
n People Weighted <sup>4</sup>		5015	4967	4952	4948	4939	4906	5040	5143	5181	5109	5117	5111	5233	5260		

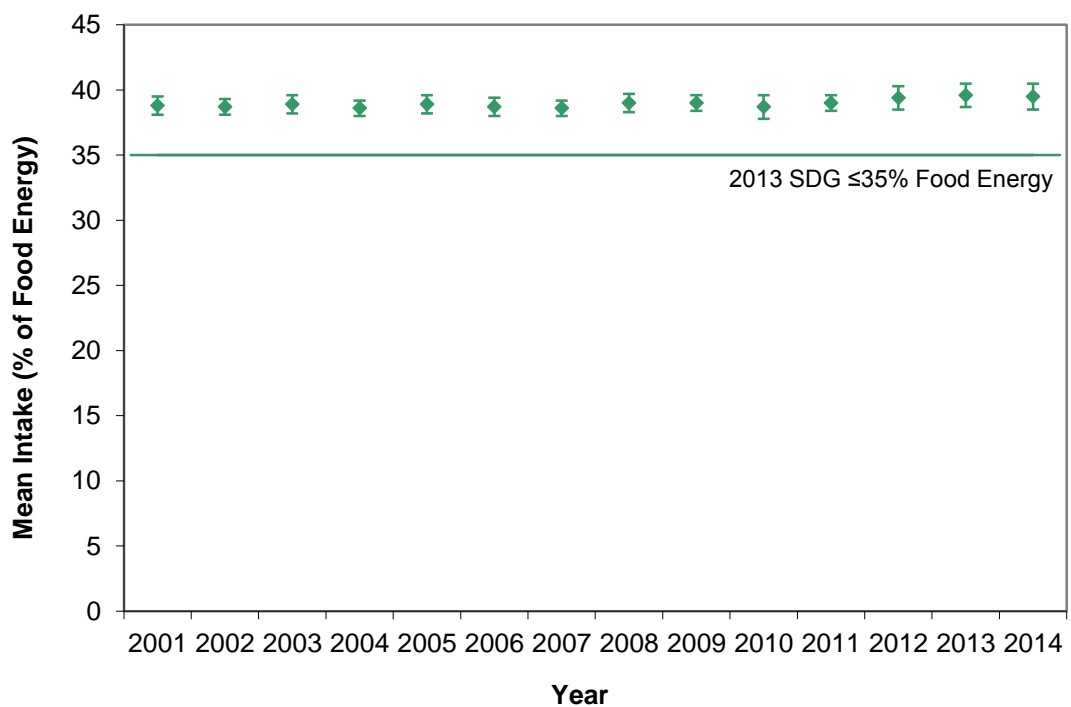
<sup>1</sup>Household and eating out intakes combined; <sup>2</sup>From 2006 the EFS moved from a financial year to a calendar year basis. As a consequence of this the January to March 2006 data are duplicated in the 2005/2006 and the 2006 results; <sup>3</sup>Calculated from food and milk; <sup>4</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population

**Figure 4: Mean [95% CI] energy density (food and milk) by year 2001 - 2014 compared to the 2013 Scottish Dietary Goal (125 kcal/100g)**



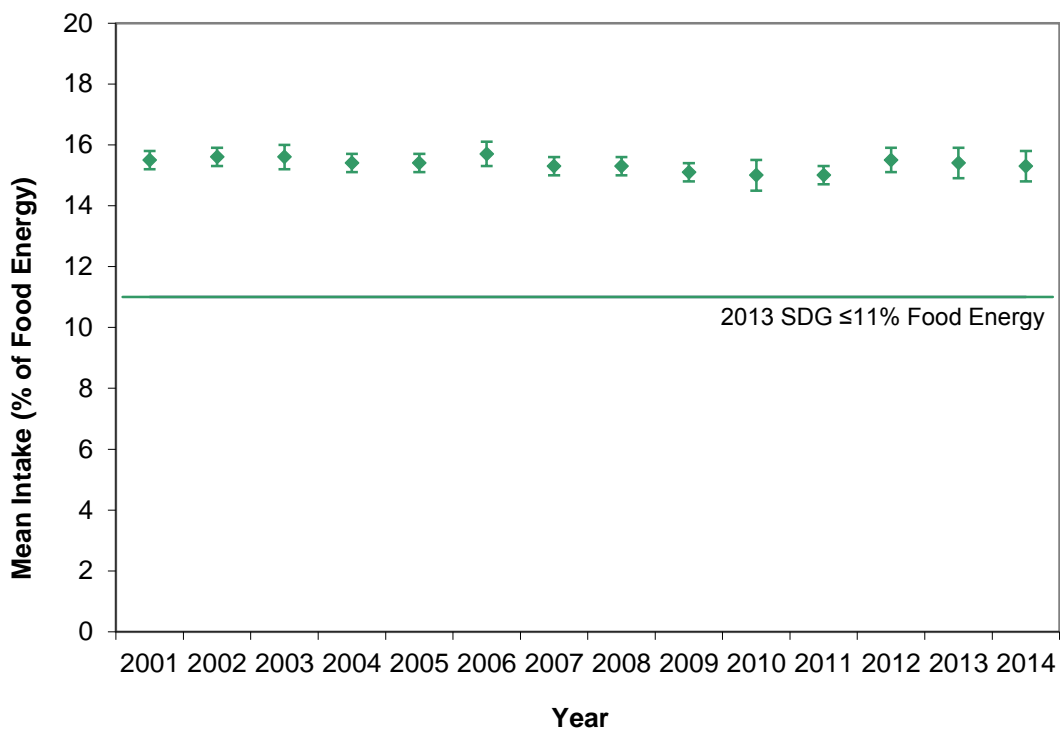
P (linear association) = 0.007; P (overall association) = 0.132

**Figure 5: Mean [95% CI] fat intake by year 2001 - 2014 compared to the 2013 Scottish Dietary Goal ( $\leq 35\%$  food energy)**



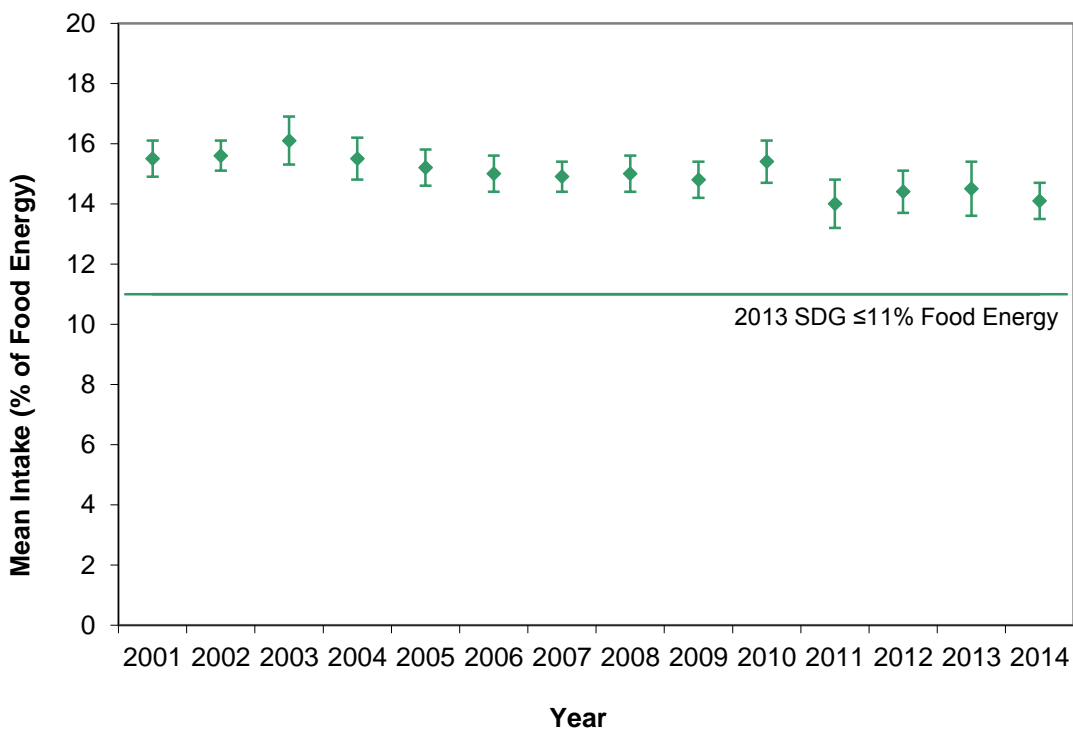
P (linear association) = 0.018; P (overall association) = 0.781

**Figure 6: Mean [95% CI] saturated fat intake by year 2001 - 2014 compared to the 2013 Scottish Dietary Goal ( $\leq 11\%$  food energy)**



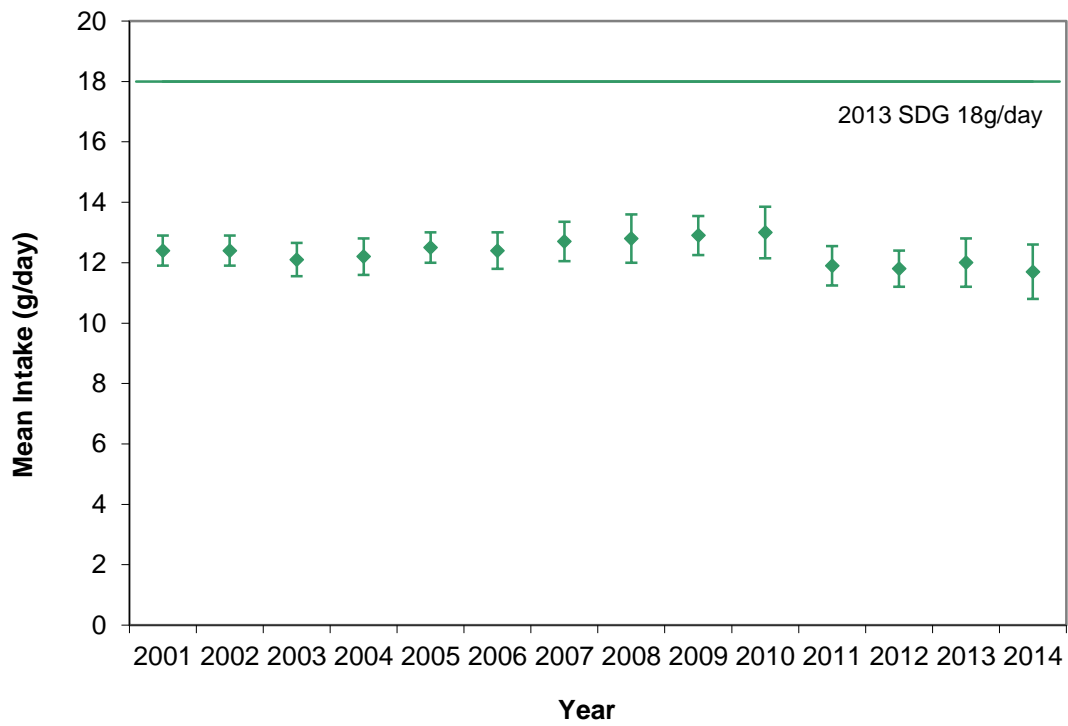
P (linear association) = 0.028; P (overall association) = 0.102

**Figure 7: Mean [95% CI] NMES intake by year 2001 - 2014 compared to the 2013 Scottish Dietary Goal ( $\leq 11\%$  food energy)**



P (linear association) < 0.001; P (overall association) = 0.008

Figure 8: Mean [95% CI] NSP intake by year 2001 - 2014 compared to the 2013 Scottish Dietary Goal (18g/day)



P (linear association) = 0.108; P (overall association) = 0.363

**Table 5: Mean Intake<sup>1</sup> of Scottish Dietary Goal Nutrients by SIMD, 2012 to 2014 Combined - LCFS data (units/person/day)**

Nutrient	2013 SDG	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	P-value for Overall Association
Energy Density kcal/100g <sup>2</sup>	125kcal/ 100g	181	178	170	174	168	<b>0.030</b>	0.169
		174, 188	171, 186	164, 177	170, 179	163, 174		
% Food Energy Fat	≤35%	40.4	39.7	38.6	39.8	39.3	0.219	0.337
		39.0, 41.9	38.8, 40.6	37.5, 39.7	38.7, 40.8	38.4, 40.1		
% Food Energy Saturated Fat	≤11%	15.7	15.4	14.9	15.6	15.4	0.632	0.288
		15.1, 16.4	15.0, 15.9	14.4, 15.4	15.0, 16.2	15.0, 15.8		
% Food Energy NMES	≤11%	14.4	14.7	14.4	14.2	14.0	0.235	0.668
		13.0, 15.8	13.9, 15.6	13.4, 15.5	13.2, 15.2	13.2, 14.9		
NSP	18g/day	11	10	12	13	13	<b>&lt;0.001</b>	<b>&lt;0.001</b>
		10, 11	10, 11	11, 13	12, 13	12, 13		
Food Energy kcal		1834	1793	1952	1970	1906	0.057	<b>0.008</b>
		1726, 1943	1692, 1894	1826, 2078	1876, 2064	1803, 2008		
Food Energy MJ		7.7	7.5	8.2	8.3	8.0	0.053	<b>0.008</b>
		7.2, 8.1	7.1, 7.9	7.7, 8.7	7.9, 8.7	7.6, 8.4		
% Food Energy Protein		13.9	13.6	14.3	14.0	14.2	<b>0.037</b>	0.073
		13.6, 14.3	13.2, 14.0	13.9, 14.8	13.7, 14.4	13.9, 14.5		
% Food Energy Carbohydrate		45.6	46.6	47.0	46.1	46.4	0.597	0.744
		44.0, 47.1	45.7, 47.4	45.8, 48.1	45.0, 47.1	45.5, 47.3		
Total Energy kcal		1896	1848	2017	2035	1981	<b>0.047</b>	<b>0.006</b>
		1784, 2008	1744, 1953	1891, 2144	1938, 2132	1866, 2095		
Total Energy MJ		7.9	7.7	8.4	8.5	8.3	<b>0.047</b>	<b>0.006</b>
		7.5, 8.4	7.3, 8.2	7.9, 9.0	8.1, 8.9	7.8, 8.8		
% Total Energy Alcohol		3.9	3.4	3.5	3.3	3.8	0.961	0.740
		2.9, 4.9	2.7, 4.2	2.7, 4.4	2.6, 3.9	2.9, 4.7		
n Households		210	268	279	270	293		
n People		461	584	631	629	662		
n People Weighted <sup>3</sup>		2442	2983	3420	3372	3387		

<sup>1</sup>Household and eating out intakes combined; <sup>2</sup>Calculated from food and milk; <sup>3</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population

\*Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived

## 2.3 Consumption of Additional Foods and Drinks Indicative of Diet Quality

### *Bread*

Mean total daily bread consumption decreased significantly over the period 2001 to 2014 (from 111g to 80g, P-value for linear association <0.001) (**Table 6**). This was accounted for by a steady decrease in white bread. However, intakes of brown/wholemeal bread have remained fairly constant with a mean intake in 2014 of 20g/day. In 2014, 25% of bread consumed was brown/wholemeal compared to 16.4% in 2001. There was no statistical association between total bread consumption and SIMD quintile for 2012 to 2014 (**Table 7**). Consumption of brown/wholemeal bread was highest in the least deprived quintile of SIMD (Quintile 5) at 22g/day compared to 16g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-value for linear association <0.001) (**Table 7**).

### *Breakfast Cereals*

Mean total breakfast cereal consumption remained fairly constant from 2001 to 2014. The mean intake in 2014 was 20g/day (**Table 6**). Mean intake of high fibre breakfast cereals increased significantly from 10g/day in 2001 to 14g/day in 2009, however has dropped slightly since with a mean intake in 2014 of 11g/day. Consumption of high fibre breakfast cereal and total breakfast cereal was highest in the least deprived quintile of SIMD (Quintile 5), at 14 and 23 g/day respectively compared to 5.7 and 15 g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-values for linear association <0.001 and = 0.001 respectively) (**Table 7**).

### *Cakes, Sweet Biscuits and Pastries; Sugar and Preserves; Confectionery and Ice Cream and Dairy Desserts*

Mean consumption of cakes, sweet biscuits and pastries; confectionery; and ice cream and dairy desserts have remained fairly constant between 2001 and 2014 with mean intakes in 2014 of 39, 22 and 31 g/day respectively (**Table 6**). The mean intake of sugar and preserves reduced significantly from 19g/day in 2001 to 15g/day in 2014 (P-value for linear trend = 0.023).

**Table 7** shows that there were significant linear associations between SIMD quintile and cakes and pastries and total cakes, sweet biscuits and pastries, with consumption highest in the least deprived quintile (Quintile 5) at 19 and 41 g/day respectively compared to 12 and 32 g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-values for linear association = 0.006 and 0.020 respectively). There was no statistical association between SIMD quintile and sweet biscuits; ice cream and dairy desserts; sugar and preserves; or confectionery for 2012 to 2014.

### *Soft Drinks*

The trends in consumption of sugar-containing soft drinks mirrored that of NMES intake (i.e. increasing slightly from 2001 to 2003 but then falling again towards 2009, increasing in 2010 and then dramatically decreasing in 2011) (**Table 6, Figure 9**). Overall, sugar-containing soft drink consumption decreased significantly from 234g/day in 2001 to 148g/day in 2014 (P-value for linear trend <0.001). In contrast, the mean intake of sugar free soft drinks increased significantly from 98g/day in 2001 to 121g/day in 2014 (P-value for linear association <0.001).

There was no statistical association between total soft drink or sugar free soft drink consumption and SIMD quintile for 2012 to 2014 (**Table 7**). However, consumption of

sugar containing soft drinks was lowest in the least deprived quintile of SIMD (Quintile 5) at 132g/day compared to 194g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-value for linear association = 0.010) (**Table 7**).

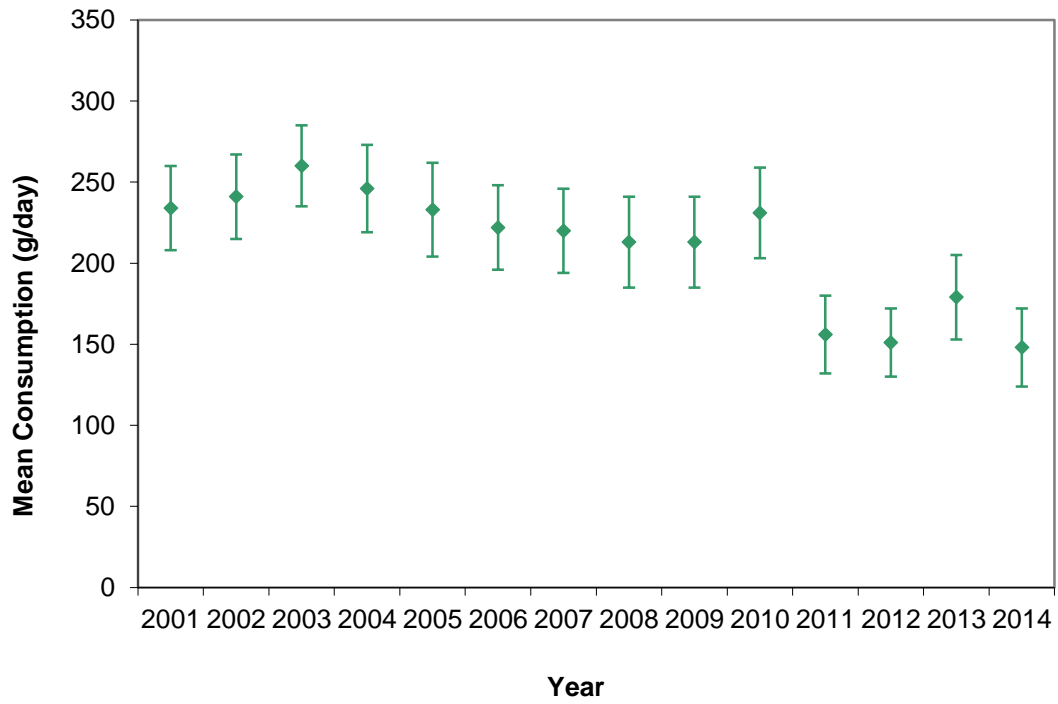
**Table 6: Mean Consumption<sup>1</sup> of Additional Foods and Drinks Indicative of Diet Quality by Year (Table A), 2001 to 2014 - EFS / LCF data (g/person/day)**

Food <sup>2</sup>	2001 Mean 95% CI	2002 Mean 95% CI	2003 Mean 95% CI	2004 Mean 95% CI	2005 Mean 95% CI	2006 <sup>3</sup> 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	2013 Mean 95% CI	2014 Mean 95% CI	P-value for Linear Association	P-value for Overall Association
Brown/Wholemeal Bread	18 16, 20	19 16, 21	17 15, 19	22 20, 25	22 19, 25	24 21, 26	23 21, 26	24 21, 26	21 20, 23	23 20, 26	23 19, 26	20 18, 21	21 18, 23	20 18, 22	0.103	<0.001
Total Bread	111 106, 117	109 104, 113	102 96, 109	100 95, 105	100 95, 106	102 96, 108	98 93, 103	93 89, 97	95 90, 100	94 89, 99	86 80, 92	93 87, 99	90 84, 96	80 75, 85	<0.001	<0.001
High Fibre Breakfast Cereal	10 8.4, 12	10 8.7, 12	10 8.5, 12	11 9.2, 13	11 10, 13	11 9.3, 13	13 12, 15	13 10, 15	14 12, 16	12 10, 14	12 10, 15	11 8.9, 13	12 10, 14	11 8.7, 14	0.089	0.286
Total Breakfast Cereal	20 17, 22	20 17, 22	19 16, 22	21 19, 23	19 17, 22	19 17, 21	22 19, 25	22 19, 25	23 21, 26	22 19, 25	22 19, 24	20 17, 22	21 19, 23	20 18, 23	0.134	0.539
Cakes and Pastries	18 16, 20	17 15, 19	17 15, 19	18 16, 20	16 15, 18	18 16, 20	17 15, 19	19 17, 21	16 15, 18	18 15, 20	15 14, 17	16 15, 18	17 15, 19	15 13, 18	0.060	0.189
Sweet Biscuits	22 20, 23	23 21, 26	22 20, 24	21 19, 23	20 17, 22	22 20, 25	24 21, 27	24 21, 27	23 21, 25	22 19, 24	19 18, 21	21 18, 23	21 18, 24	23 20, 26	0.631	0.101
Cakes, Sweet Biscuits and Pastries	40 37, 43	40 37, 44	39 35, 43	39 36, 42	36 33, 39	41 37, 44	41 37, 45	43 39, 47	39 36, 42	40 36, 43	35 32, 37	37 34, 40	38 35, 41	39 34, 44	0.150	0.072
Ice Cream and Dairy Desserts	31 27, 35	33 27, 38	34 29, 38	31 25, 37	35 29, 41	33 28, 37	34 28, 40	32 27, 37	32 27, 37	30 25, 35	29 24, 34	33 28, 37	33 26, 40	31 26, 36	0.577	0.984
Sugar and Preserves	19 17, 22	17 15, 19	20 16, 23	18 16, 20	15 13, 18	17 14, 20	19 16, 22	18 15, 21	17 14, 20	18 15, 21	16 13, 19	17 14, 21	16 14, 18	15 12, 18	0.023	0.079
Chocolate Confectionery	14 12, 16	15 13, 17	16 14, 18	15 13, 17	14 12, 15	14 12, 16	15 12, 18	16 13, 18	15 13, 17	14 12, 17	13 12, 15	14 12, 16	14 12, 16	14 12, 16	0.476	0.850
Sugar Confectionery	7.6 6.5, 8.7	7.9 6.6, 9.1	7.9 6.9, 8.8	7.1 6.2, 8.1	6.8 5.5, 8.0	6.6 5.4, 7.8	6.8 5.9, 7.6	7.0 5.0, 8.0	7.0 5.9, 8.2	7.1 6.1, 8.2	6.7 5.7, 7.7	7.0 6.0, 8.0	7.5 6.0, 9.1	7.7 6.6, 8.8	0.606	0.589
Total Confectionery	21 19, 24	23 20, 25	24 21, 26	22 19, 24	20 18, 23	20 18, 23	22 18, 25	22 19, 25	22 20, 25	21 18, 25	20 18, 22	21 19, 24	21 18, 24	22 20, 24	0.422	0.844
Sugar-Containing Soft Drinks	234 208, 260	241 215, 266	260 235, 284	246 219, 272	233 204, 263	222 196, 248	220 194, 245	213 185, 242	213 185, 241	231 203, 258	156 132, 180	151 130, 172	179 153, 205	148 124, 172	<0.001	<0.001
Sugar Free Soft Drinks	98 83, 113	108 89, 126	106 86, 126	85 72, 98	85 67, 102	112 91, 132	86 66, 107	100 81, 119	78 62, 94	120 92, 149	98 78, 118	137 110, 163	143 117, 170	121 97, 146	<0.001	<0.001
Total Soft Drinks	332 305, 359	348 315, 382	366 337, 395	331 299, 362	318 280, 356	334 299, 369	306 269, 342	313 271, 355	291 259, 324	351 317, 386	254 221, 287	288 255, 320	322 280, 365	269 246, 293	<0.001	<0.001
n Households	619	585	546	590	566	577	500	494	543	464	495	477	410	433		
n People	1414	1342	1266	1329	1285	1365	1093	1058	1222	1030	1088	1063	930	974		
n People Weighted <sup>4</sup>	5015	4967	4952	4948	4939	4906	5040	5143	5181	5109	5117	5111	5233	5260		

<sup>1</sup>Household and eating out consumption combined; <sup>2</sup>See appendices 1 & 3 of Wrieden and Barton (2015) for methodology; <sup>3</sup>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; <sup>4</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population



Figure 9: Mean [95% CI] sugar-containing soft drink consumption by year 2001 - 2014



P (linear association) <0.001; P (overall association) <0.001

**Table 7: Mean Consumption<sup>1</sup> of Additional Foods and Drinks Indicative of Diet Quality by SIMD (Table A), 2012 to 2014 Combined - LCFS data (g/person/day)**

Food <sup>2</sup>	SIMD Quintile 1*	SIMD Quintile 2	SIMD Quintile 3	SIMD Quintile 4	SIMD Quintile 5*	P-value for Linear Association	P-value for Overall Association
	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI		
Brown/Wholemeal Bread	16 13, 19	17 14, 20	22 19, 25	23 18, 28	22 19, 24	<0.001	0.003
Total Bread	92 85, 98	86 80, 91	89 79, 98	87 78, 96	86 80, 91	0.230	0.543
High Fibre Breakfast Cereal	5.7 3.5, 7.9	10 8.2, 13	11 9, 14	13 10, 16	14 12, 17	<0.001	<0.001
Total Breakfast Cereal	15 11, 18	19 16, 23	21 18, 24	22 19, 25	23 20, 26	0.001	0.008
Cakes and Pastries	12 10, 14	16 14, 18	17 14, 19	16 14, 19	19 16, 22	0.006	0.023
Sweet Biscuits	20 16, 23	21 18, 24	24 21, 26	22 20, 25	22 18, 25	0.461	0.499
Cakes, Sweet Biscuits and Pastries	32 28, 36	37 33, 41	40 37, 44	38 34, 42	41 36, 45	0.020	0.037
Ice Cream and Dairy Desserts	34 25, 43	33 26, 40	33 25, 40	34 27, 41	28 23, 33	0.272	0.363
Sugar and Preserves	14 11, 17	16 13, 19	16 12, 20	18 14, 21	16 13, 19	0.234	0.506
Chocolate Confectionery	12 10, 14	13 11, 15	16 13, 19	14 12, 17	14 12, 17	0.169	0.164
Sugar Confectionery	6.8 4.6, 9.0	7.6 5.6, 9.6	8.3 6.6, 10	7.4 6.0, 8.7	7.0 5.6, 8.4	0.942	0.782
Total Confectionery	19 16, 22	20 17, 24	24 20, 28	22 19, 25	21 18, 25	0.242	0.193
Sugar Containing Soft Drinks	194 154, 233	164 139, 189	162 130, 195	155 129, 181	132 105, 159	0.010	0.117
Sugar Free Soft Drinks	126 90, 162	123 91, 155	129 98, 160	150 116, 184	137 106, 168	0.308	0.778
Total Soft Drinks	320 271, 368	287 246, 328	291 254, 329	305 262, 348	269 218, 320	0.286	0.748
n Households	210	268	279	270	293		
n People	461	584	631	629	662		
n People Weighted <sup>3</sup>	2442	2983	3420	3372	3387		

<sup>1</sup>Household and eating out intakes combined; <sup>2</sup>See appendices 1 & 3 of Wrieden and Barton (2015) for methodology; <sup>3</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population \*Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived

### *Red Meat Products*

Bacon and ham consumption has remained constant over the period of 2001 to 2014 (**Table 8**), however other red meat products have shown a significant decrease over time (P-value for linear association = 0.003), which includes a decrease in savoury pie consumption from 11g/day in 2001 to 8.5g/day in 2014 (P-value for linear association = 0.007).

There was no statistical association between consumption of bacon and ham and SIMD quintile for 2012 to 2014 (**Table 9**). However, a statistically significant association was found with other red meat products, with consumption higher in the most deprived quintile (Quintile 1) at 34g/day compared to 22g/day in the least deprived quintile (Quintile 5) for 2012 to 2014 (P-value for linear association <0.001). This includes a significant association between SIMD quintile and savoury meat pies, with an intake of 11g/day in the most deprived quintile compared to 7.5g/day in the least deprived quintile for 2012 to 2014 (P-value for linear association <0.001) (**Table 9**).

### *Dairy Products and Fat*

Mean butter and soft margarine intake has increased from 6.1 and 1.2 g/day respectively in 2001 to 7.0 and 1.6 g/day in 2014 (P-values for linear association <0.001). Over the same time period there has been a significant reduction in mean low fat spread consumption from 10g/day to 4.8g/day (P-value for linear association <0.001) (**Table 8**) such that there has been no significant change in total spread consumption. There has been no significant change to cooking oil or cheese consumption over time but there has been an increase in mean cream consumption from 2.3g/day to 4.0g/day (P-value for linear association <0.001). Mean total daily milk consumption has decreased from 250g in 2001 to 193g in 2014 (P-value for linear association <0.001). This has been caused by a decrease in mean whole milk consumption from 92g/day to 37g/day (P-value for linear association <0.001) (**Table 8**).

In the most deprived SIMD quintile (Quintile 1) compared to the least deprived quintile (Quintile 5), there was a significantly higher mean consumption of low fat spread (6.6g/day compared to 5.0g/day) and whole milk (56g/day compared to 30g/day) for 2012 to 2014 (P-values for linear association = 0.013 and <0.001 respectively) (**Table 9**). Mean consumption of whole milk was almost double in the most deprived compared to the least deprived quintile. The least deprived quintile of SIMD (Quintile 5) had significantly higher intakes compared to the most deprived quintile (Quintile 1) of skimmed milk (15g/day compared to 4.8g/day), cheese (15g/day compared to 12g/day), and cream (5.5g/day compared to 1.7g/day) (P-values for linear association = 0.001, 0.018 and <0.001 respectively) (**Table 9**).

### *White Fish*

Mean white fish consumption has ranged between 70g/week and 96g/week, however the mean intake of 96g/week in 2007 has declined to 71g/week in 2014 (P-value for linear association <0.001) (**Table 8**). Consumption of white fish was highest in the least deprived quintile of SIMD (Quintile 5) at 86g/day, compared to 51g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-value for linear association <0.001) (**Table 9**).

### *Potatoes, Nuts and Savoury Snacks*

There has been a significant decrease in fresh potato consumption between 2001 and 2014 (P-value for linear association <0.001), with a mean intake in 2014 of 39g/day compared with a mean intake in 2001 of 66g/day. Processed potato (e.g. chips) and savoury snack consumption decreased from 2001 to 2005 and 2006 respectively but has fluctuated in the period since. Mean nut consumption has increased from 2.2g/day in 2001 to 3.6g/day in 2014 (P-value for linear association <0.001) (**Table 8**).

No significant association with SIMD quintile was found for consumption of fresh potatoes, or savoury snacks for 2012 to 2014, however a significant association was found with consumption of processed potatoes and nuts (**Table 9**). For processed potatoes, mean consumption was highest in the most deprived quintile (Quintile 1) at 38g/day, compared to 23g/day in the least deprived quintile (Quintile 5) (P-value for linear association <0.001). The converse was found for nut consumption: 4.4g/day in the least deprived quintile (Quintile 5) compared to 1.8g/day in the most deprived quintile (Quintile 1) for 2012 to 2014 (P-value for linear association <0.001).

**Table 8: Mean Consumption<sup>1</sup> of Additional Foods and Drinks Indicative of Diet Quality by Year (Table B), 2001 to 2014 - EFS/ LCF data (g/person/day)**

Food <sup>2</sup>	2001 Mean 95% CI	2002 Mean 95% CI	2003 Mean 95% CI	2004 Mean 95% CI	2005 Mean 95% CI	2006 <sup>3</sup> 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	2013 Mean 95% CI	2014 Mean 95% CI	P-value for Linear Association	P-value for Overall Association
Bacon and Ham	12 11, 14	12 10, 13	12 11, 14	11 10, 12	12 11, 13	12 11, 13	12 11, 13	12 11, 13	13 12, 14	12 11, 13	13 12, 15	12 11, 14	12 10, 14	11 9.0, 12	0.963	0.603
Other Red Meat Products <sup>4,5</sup>	29 26, 32	29 26, 31	31 29, 33	27 25, 29	29 26, 31	25 23, 28	28 26, 31	25 22, 28	28 25, 30	27 24, 29	25 23, 27	28 25, 30	26 24, 29	25 23, 28	0.003	0.020
Of Which - Savoury Meat Pies	11 9.4, 12	10 9.0, 11	10 9.0, 12	10 8.8, 12	11 10, 12	10 8.6, 11	11 10, 13	8.0 6.7, 9.4	10 8.3, 11	10 8.3, 11	9.3 7.8, 11	10 8.8, 12	8.7 7.3, 10	8.5 7.0, 10	0.007	0.107
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	8.6 6.9, 10	7.0 5.5, 8.4	<0.001	0.031
Soft Margarine	1.2 0.7, 1.6	1.3 0.8, 1.8	1.3 0.9, 1.8	0.8 0.5, 1.2	2.1 1.5, 2.6	2.0 1.3, 2.6	2.0 1.3, 2.7	2.5 1.6, 3.3	1.8 1.2, 2.4	2.4 1.6, 3.2	1.5 0.8, 2.2	2.4 1.6, 3.1	2.3 1.6, 3.1	1.6 1.0, 2.3	<0.001	<0.001
Low Fat Spread	10 8.4, 11	8.1 7.0, 9.3	9.0 7.8, 10	8.9 8.0, 10	6.4 5.1, 7.6	6.8 5.6, 7.9	7.3 6.0, 8.6	7.3 5.9, 8.6	6.5 5.5, 7.6	6.0 4.7, 7.3	6.2 5.2, 7.2	6.3 4.5, 8.1	5.9 4.9, 7.0	4.8 3.7, 5.9	<0.001	<0.001
Total Spreading Fats	17 16, 18	15 14, 17	16 14, 18	16 15, 17	15 14, 17	16 14, 18	17 15, 18	16 14, 18	14 13, 15	16 14, 18	15 13, 16	16 14, 18	17 15, 19	13 12, 15	0.115	0.038
Cooking Oil	6.0 4.4, 7.5	5.0 3.9, 6.2	5.0 3.8, 6.3	6.2 4.7, 7.7	7.0 4.8, 9.2	5.1 3.6, 6.6	6.6 4.5, 8.6	5.9 4.2, 7.5	7.3 6.0, 8.6	6.6 4.6, 8.6	5.9 4.6, 7.3	6.4 4.2, 8.6	6.2 4.4, 8.0	6.2 4.5, 7.8	0.208	0.503
Cream	2.3 1.9, 2.8	2.5 1.9, 3.1	2.4 1.9, 3.0	3.0 2.4, 3.6	2.8 2.2, 3.5	3.2 2.5, 3.9	3.2 2.5, 4.0	2.7 2.0, 3.5	3.3 2.5, 4.1	3.3 2.5, 4.1	3.3 2.6, 4.1	3.4 2.6, 4.1	3.1 2.3, 3.9	4.0 3.1, 5.0	<0.001	0.040
Cheese	14 13, 16	15 13, 16	14 12, 15	15 14, 16	14 13, 16	13 12, 15	16 14, 17	15 14, 16	15 14, 17	16 15, 18	14 13, 16	14 12, 15	15 13, 17	13 12, 15	0.978	0.067
Whole Milk	92 76, 107	85 73, 97	90 74, 105	68 56, 80	59 47, 71	71 57, 86	59 48, 70	53 38, 68	59 46, 73	45 37, 53	45 31, 59	45 37, 54	44 33, 56	37 29, 46	<0.001	<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	127 112, 142	136 121, 151	0.112	0.505
Skimmed Milk	15 8.9, 21	13 8.6, 16	9.2 6.0, 12	13 8.6, 18	14 9.1, 19	14 11, 18	14 9.2, 19	19 14, 24	18 13, 23	14 8.3, 19	19 9.4, 29	12 7.9, 17	15 7.2, 23	8.7 4.9, 12	0.756	0.062
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	202 179, 226	193 178, 209	<0.001	<0.001
White Fish	94 85, 104	91 82, 100	90 80, 101	85 76, 94	85 73, 96	95 84, 105	96 83, 110	91 79, 103	91 82, 101	91 76, 106	82 64, 101	70 62, 79	75 65, 86	71 60, 82	<0.001	0.014
Fresh Potatoes	66 58, 74	58 52, 64	56 51, 62	54 48, 60	57 52, 63	60 52, 68	53 47, 60	54 47, 61	50 44, 56	49 43, 56	43 37, 48	47 41, 52	39 34, 44	39 34, 45	<0.001	<0.001
Processed Potatoes	33 30, 36	33 30, 36	32 29, 35	28 25, 30	27 24, 31	28 25, 31	29 25, 32	27 23, 30	29 26, 32	29 25, 32	27 24, 30	32 27, 37	29 26, 33	28 26, 31	0.061	0.054
Nuts	2.2 1.4, 2.9	1.8 1.2, 2.3	2.0 1.4, 2.5	2.9 2.3, 3.6	3.0 2.3, 3.8	3.0 2.0, 3.9	3.2 2.6, 3.9	3.7 2.5, 4.9	4.0 3.0, 4.9	3.1 2.0, 4.2	2.6 2.0, 3.3	3.1 2.4, 3.8	4.1 3.1, 5.1	3.6 2.7, 4.5	<0.001	<0.001
Savoury Snacks	15 13, 16	14 13, 16	15 13, 16	12 11, 13	12 11, 14	12 11, 13	14 12, 15	12 11, 14	13 12, 15	14 12, 15	11 10, 13	12 11, 13	14 12, 16	14 12, 15	0.067	0.002
n Households	619	585	546	590	566	577	500	494	543	464	495	477	410	433		
n People	1414	1342	1266	1329	1285	1365	1093	1058	1222	1030	1088	1063	930	974		
n People Weighted <sup>6</sup>	5015	4967	4952	4948	4939	4906	5040	5143	5181	5109	5117	5111	5233	5260		

<sup>1</sup>Household and eating out consumption combined; <sup>2</sup>See appendices 1 & 3 of Wrieden and Barton (2015) for methodology; <sup>3</sup>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; <sup>4</sup>Meat portion only – see appendices 1 & 3 of Wrieden and Barton, (2015) for methodology; <sup>5</sup>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; <sup>6</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population

**Table 9: Mean Consumption<sup>1</sup> of Additional Foods and Drinks Indicative of Diet Quality by SIMD (Table B), 2012 to 2014 Combined - LCFS data (g/person/day)**

Food <sup>2</sup>	SIMD Quintile 1*	SIMD Quintile 2	SIMD Quintile 3	SIMD Quintile 4	SIMD Quintile 5*	P-value for Linear Association	P-value for Overall Association
	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI		
Bacon and Ham	11 9.2, 13	11 9.7, 12	12 9.6, 14	13 11, 14	11 9.7, 13	0.477	0.381
Other Red Meat Products <sup>3,4</sup>	34 30, 39	28 25, 31	25 23, 27	26 23, 28	22 19, 25	<0.001	0.002
Of which - Savoury Meat Pies	11 8.7, 13	11 8.6, 13	9.4 7.9, 11	7.7 6.1, 9.3	7.5 6.3, 8.7	<0.001	0.012
Butter	7.2 5.9, 8.5	7.0 5.1, 8.9	7.8 6.5, 9.1	8.1 6.3, 9.9	7.9 6.5, 9.3	0.227	0.744
Soft Margarine	2.3 1.2, 3.4	2.3 1.2, 3.4	1.4 0.8, 2.0	2.9 1.4, 4.3	1.7 1.0, 2.5	0.796	0.259
Low Fat Spread	6.6 4.7, 8.6	7.2 5.7, 8.8	5.5 4.4, 6.6	4.4 3.4, 5.5	5.0 3.6, 6.5	0.013	0.049
Total Spreading Fats	16 14, 18	17 14, 19	15 13, 16	15 13, 18	15 12, 17	0.193	0.456
Cooking Oil	7.4 4.2, 11	7.7 4.6, 11	5.1 3.7, 6.5	6.9 3.2, 11	4.6 3.3, 6.0	0.147	0.241
Cream	1.7 0.9, 2.5	2.4 1.7, 3.1	3.1 2.1, 4.0	4.2 3.2, 5.2	5.5 4.1, 6.9	<0.001	<0.001
Cheese	12 10, 14	13 11, 14	14 12, 16	16 14, 17	15 12, 17	0.018	0.057
Whole Milk	56 44, 68	56 41, 71	43 34, 51	33 25, 41	30 22, 37	<0.001	<0.001
Semi-skimmed Milk	115 91, 138	133 121, 146	141 124, 159	131 116, 146	150 131, 170	0.055	0.209
Skimmed Milk	4.8 0.5, 9.1	8.2 3.7, 13	15 5.4, 25	14 6.3, 21	15 9.3, 21	0.001	0.017
Total Milk	193 168, 217	215 191, 239	211 193, 230	190 174, 206	209 188, 229	0.946	0.339
White Fish	51 42, 61	68 52, 85	73 61, 84	76 65, 88	86 75, 97	<0.001	<0.001
Fresh Potatoes	46 33, 58	40 34, 46	41 34, 48	44 38, 50	38 32, 44	0.415	0.505
Processed Potatoes	38 31, 46	33 29, 37	30 26, 33	28 25, 32	23 20, 26	<0.001	0.001
Nuts	1.8 1.0, 2.7	2.6 1.8, 3.4	3.9 3.0, 4.8	4.7 3.5, 5.8	4.4 3.3, 5.4	<0.001	0.001
Savoury Snacks	14 12, 16	13 12, 15	13 12, 15	14 12, 15	12 11, 13	0.098	0.181
n Households	210	268	279	270	293		
n People	461	584	631	629	662		
n People Weighted <sup>5</sup>	2442	2983	3420	3372	3387		

<sup>1</sup>Household and eating out intakes combined; <sup>2</sup>See appendices 1 & 3 of Wrieden and Barton (2015) for methodology; <sup>3</sup>Meat portion only; <sup>4</sup>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; <sup>5</sup>The results are weighted to the Scottish population - the number provided is approximately 1000<sup>th</sup> of the Scottish population. \*Scottish Index of Multiple Deprivation (SIMD) Quintiles: 1=Most Deprived; 5=Least Deprived

### 3.0 References

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