

# Consumption of discretionary foods and drinks and other categories of dietary concern in adults (16+ yr): analyses of data from Intake24 within the 2021 Scottish Health Survey

## 1. Introduction

In 2016 and 2017 Food Standards Scotland (FSS) proposed a suite of measures to improve dietary health in Scotland, including a recommendation that the promotion of high fat, sugar or salt (known as HFSS) food and drink be restricted. This recommendation has been incorporated into the Scottish Government's (SG) Healthier Future Delivery Plan, which sets out a wide range of actions to support people to eat well and maintain a healthy weight, while reducing diet-related inequalities. The SG plan to consult on the detail of proposed regulations to restrict the promotion of less healthy food and drinks in autumn 2023. This will include proposals to restrict prominent in-store price promotions which encourage people to buy more than they actually need.

[Read 'A healthier future: Scotland's diet and healthy weight delivery plan'](#).  
[Read the discussion in parliament around diet and healthy weight consultations on May 30 2023.](#)

In July 2022, the SG consulted on proposals to restrict promotions of food and drink high in fat, sugar or salt. The consultation proposed to target discretionary food and drink products: confectionery, sweet biscuits, crisps and savoury snacks, cakes and pastries, sugary drinks, puddings, as well as ice cream and dairy desserts. These products are high in calories, fats and sugar and can represent around 25% of all food and drink volume purchased into the home.

[Read the 'Consultation on restricting promotions of food and drink high in fat, sugar or salt'](#).  
[Read our 'Situation report: Changes to shopping and eating behaviours in Scotland during the COVID-19 pandemic in 2020'](#).

The consultation also considered targeting additional categories, including breakfast cereals, sweetened yoghurt and fromage frais, pizza, ready meals and roast potatoes, chips and similar potato products. Previous analyses of data for 2018 derived from the living costs and food survey demonstrated that, at a population level, these additional categories account for 11% of calories in the diet in Scotland. This also demonstrated

that breakfast cereals, yoghurts and fromage frais specifically contributed 6% to intakes of free sugars.

[Read our 'Estimation of food and nutrient intakes from food purchase data in Scotland between 2001 and 2018' report.](#)

## **2. Aims**

FSS evidence demonstrates significant changes to shopping and eating behaviours in Scotland during the COVID-19 pandemic, including increased use of online delivery services. Data from the 2021 Scottish Health Survey (SHeS) provides an opportunity to provide an up-to date view of diet in Scotland following the pandemic, on top of the other issues, including the UK's exit from the EU and the climate and ecological emergency.

The aim of these analyses was to use 2021 SHeS Intake24 data to provide up-to date information on the consumption of discretionary foods and additional categories considered within policy proposals for the restriction of promotions, by adults (16+ y).

### **3. Methods**

#### **3.1 Intake24**

In 2018, as part of our ongoing dietary surveillance programme, FSS piloted the use of an online 24 hour recall dietary assessment method (called Intake24) in the SHeS. Data from Intake24 provided an estimate of dietary intake in >1000 adults (16+y) living in Scotland in 2018. Intake24 has since been included in the 2021 SHeS, providing an estimate of dietary intake in almost 3,500 adults (16+y) living in Scotland in 2021.

Respondents who consented to take part in Intake24 as part of the 2021 SHeS were invited to undertake dietary recalls on two separate occasions where they input details of their food and beverage consumption for the previous day. Two recalls, rather than a single recall, were requested to get a better understanding of an individual's typical diet. Online Intake24 dietary recalls were completed via a link sent by text or email directly to participants by the interviewer within minutes of giving consent. The second recall was completed within seven days of the initial recall. Days for dietary recall were assigned at random with the aim of achieving a proportionate spread of week and weekend days.

[More detail on the 2021 SHeS methodology.](#)

#### **3.2 Categories**

The categories included within the analyses have been based on those outlined within the SG consultation on promotional restrictions. Categories were matched as far as possible however, major recategorisation of categories was not undertaken and therefore there were some differences. For example, puddings have not been analysed separately and were included within 'cakes, pastries and puddings'. Similarly, dairy desserts were included within 'yoghurts, fromage frais and dairy desserts' rather than alongside ice-cream as detailed within the consultation. For the purposes of these analyses, ice cream and ice lollies have been included within the definition of total discretionary food and drink.

It is important to note that the consultation proposed to exclude products within food categories that are non-HFSS, for example sugar free sweets, or lower fat, sugar or salt ready meals. These analyses did not exclude any non-HFSS food or drink items within food categories as this level of detail was not available within Intake24.

Detailed definitions of each individual category are provided in Annex 1. Table 1 below provides a summary of the categories included within these analyses.

Table 1: Summary of categories included

Category	Definition
Total discretionary food and drink	Sweet biscuits, cakes, pastries and puddings, crisps and savoury snacks, confectionery, ice cream and ice lollies, sugar-containing soft drinks
Total additional categories	Pizza, breakfast cereals, ready meals, yoghurts, fromage frais and dairy desserts, roast potatoes, chips and other processed potato products

### 3.3 Analysis

Analyses were conducted using SPSS Version 17. Mean and median intakes and contribution to calories and macronutrients were calculated for each individual category, including splits by age, sex and SIMD (Scottish Index of Multiple Deprivation<sup>1</sup>). As noted within Section 6 on Limitations, statistical testing to compare differences in intakes between categories and groups has not been carried out. Standard deviations, calculated to demonstrate variation within the sample, alongside the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles are presented within the full data tables in Annex 2 and 3. Consumer only intakes have also been provided within these annexes.

Within this paper, mean intakes have been presented for **all respondents** who completed two recalls, to represent intake at a population level in Scotland. Intake24 weights (already prepared for the SHeS dataset) were applied, to account for the probability of selection and non-response to the survey. Details on the weighting can be found within the SHeS technical report for 2021.

[Find more details on the weighting in the SHeS technical report for 2021.](#)

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<sup>1</sup> SIMD is a relative measure of deprivation. It looks at the extent to which an area is deprived across seven domains: income, employment, education, health, access to services, crime and housing. SIMD is the Scottish Government's standard approach to identify areas of multiple deprivation in Scotland. It is an area-based measure of relative deprivation: not every person in a highly deprived area will themselves be experiencing high levels of deprivation.

## 4. Results

### 4.1 About the sample

The overall sample included a total of 3,447 respondents, with 3,042 (88%) of those completing two recalls. Analyses have been based on those who completed two recalls which provides a better indicator of intake than a single recall.

Table 2 provides a breakdown of the unweighted base by age, sex and SIMD, alongside the weighted percentages and mean total energy intake for each group.

*Table 2: Sample demographics (by age, sex and SIMD) and total energy intake*

	N (unweighted)	% (weighted)	Mean total energy intake <sup>2</sup> (kcal/d, weighted)
<b>TOTAL</b>	<b>3042</b>	<b>100</b>	<b>1632</b>
<i>Of which:</i>			
16-24y	133	10.4	1604
25-34y	340	16.2	1640
35-44y	436	15.4	1772
45-54y	517	16.5	1628
55-64y	692	17.4	1627
65-74y	658	13.4	1558
75+y	266	10.7	1548
<i>Of which:</i>			
Male	1222	47.0	1786
Female	1820	53.0	1495
<i>Of which:</i>			
SIMD1= Most Deprived	367	18.1	1575
2	528	20.5	1604
3	632	19.2	1632
4	797	21.0	1602
SIMD5= Least Deprived	718	21.2	1736

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<sup>2</sup> Total energy includes all energy derived from food and beverages, including from alcoholic drinks.

## 4.2 Mean intake and contribution of discretionary categories to calories and macronutrients

Table 3 provides a breakdown of mean intakes and contribution of discretionary categories to calories and macronutrients among adults (16+y) living in Scotland, in 2021. Note, values within the tables have been rounded to the nearest integer.

The mean (SD) intake from all discretionary foods was 61g/d (60g/d), with an additional 77g/d (186g/d) coming from sugar-containing soft drinks. On average, these discretionary foods and sugar-containing soft drinks provided 260kcal per day, accounting for 15% of total energy intakes. The contribution was 17% and 18% of total fat and saturated fat, and 38% of free sugars intake.

For individual discretionary food categories (Table 3), sweet biscuits were the biggest contributor to intakes of calories, fats and free sugars. Sugar-containing soft drinks alone contributed 9% to intakes of free sugars.

*Table 3: Mean intakes and contribution of discretionary foods and drinks to calories and macronutrients in adults (16+y) living in Scotland, in 2021 (n=3042)*

Food Group	% consumers in sample	Mean intake (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Sweet biscuits	46%	15	4	5	6	10
Cakes, sweet pastries & puddings	39%	20	4	4	5	8
Crisps & savoury snacks	33%	9	3	4	1	0
Confectionery	31%	10	3	4	5	9
Ice cream & ice lollies	14%	6	1	1	2	3
<b>Total discretionary foods (excluding sugar-containing soft drinks)</b>	<b>82%</b>	<b>61</b>	<b>14</b>	<b>17</b>	<b>18</b>	<b>29</b>
Sugar-containing soft drinks	26%	77	1	0	0	9

Table 4 provides a breakdown of the contribution the additional categories made to intakes of calories and macronutrients among adults (16+y) living in 2021.

In total, the mean (SD) intake of these categories was 124g/d (129g/d), providing an average of 207 kcal per day and accounting for 13% of energy intakes, 11% of total fat and free sugars intakes, and 10% of saturated fat intakes.

Of the additional foods, breakfast cereals contributed the most to energy, total fat and free sugars (5%, 3% and 5% respectively). The yoghurts, fromage frais and dairy desserts category was the top contributor to intakes of saturated fat, alongside pizza (3% each).

In total, discretionary foods, sugar-containing soft drinks and the additional foods contributed 28% to average intakes of calories, 18% to average intakes of total fat and saturated fat and 49% to average intakes of free sugars among adults in 2021.

*Table 4: Contribution of additional foods to intakes of calories and macronutrients in adults (16+y) living in Scotland, in 2021 (n=3042)*

Food Group	% consumers in sample	Mean (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Breakfast cereals	54%	45	5	3	2	5
Roast potatoes, chips and similar roasted potato products	33%	21	2	2	1	0
Pizza	11%	18	2	2	3	1
Yoghurts, fromage frais and dairy desserts	29%	26	2	2	3	3
Ready Meals	6%	13	1	1	2	1
<b>Total additional foods</b>	<b>82%</b>	<b>124</b>	<b>13</b>	<b>11</b>	<b>10</b>	<b>11</b>

### 4.3 Mean intake and contribution to calories and macronutrients, by age

Table 5 provides a breakdown of intakes and the contribution combined categories made to calories and macronutrients in adults (16+ years) living in Scotland, by age in 2021. Annex 2 and 3 provides a full breakdown by individual food categories.

Intakes of discretionary foods were greatest within those aged 75 years and above (71g/d, SD: 62g/d). Contribution of discretionary foods to intakes of energy, saturated fat and free sugars was also greatest among this age group, representing 16%, 20% and 35% respectively. Individuals aged 16-24 years consumed the lowest quantity of discretionary foods (54g/d, SD: 50g/d) and contributed the least to intakes of free sugars (23%) compared to other age groups.

In contrast however, those in the younger age groups consumed the greatest quantity of sugar-containing soft drinks, with an average intake (SD) of 138g/d (189g/d) among 16-24 year olds and 150g/d (286g/d) among 25-34 year olds. These drinks also accounted for the greatest share of energy and free sugars intakes among those aged 16-34 years compared to the other age groups.

There were also differences in intakes of individual discretionary food and drink categories and their contribution to energy and macronutrients (Annex 2). Individuals aged 75 years and above had the highest intakes of sweet biscuits (21g/d, SD: 27g/d), cakes, sweet pastries and puddings (33g/d, SD:44g/d) and ice cream and ice lollies (9g/d, SD: 21g/d). This age group also had the lowest intake of crisps and savoury snacks (3g/d, SD: 10g/d) and confectionery (5g/d, SD: 12g/d).

In relation to the additional foods, individuals aged 16-24 years had the highest intake compared to other age groups (150g/d, SD:154g/d) and those aged 45-54 years had the lowest (114g/d, SD: 127g/d). Those aged 16-24 year olds consumed the greatest quantity of roast potatoes, chips and other processed potato products (32g/d, SD: 47g/d) and ready meals (30g/d, SD: 106g/d) compared to other age groups. Intakes

of yoghurts, fromage frais and dairy desserts were highest among those aged 65-74 (32g/d, SD: 55g/d) and 75+ years (34g/d, SD:59g/d) and similarly for breakfast cereals.

*Table 5: Mean intakes and contribution to calories and macronutrients in adults (16+y) living in Scotland, in 2021, by age (years [n=3042])*

		Mean intake (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Total discretionary foods	16-24	54	14	18	18	23
	25-34	63	15	19	19	27
	35-44	64	14	17	18	29
	45-54	59	14	17	18	30
	55-64	55	12	15	16	28
	65-74	59	13	15	17	33
	75+	71	16	18	20	35
Sugar-containing soft drinks	16-24	138	2	0	0	16
	25-34	150	3	0	0	16
	35-44	86	1	0	0	10
	45-54	65	1	0	0	8
	55-64	44	1	0	0	6
	65-74	22	0	0	0	3
	75+	35	1	0	0	4
Total additional foods	16-24	150	18	17	16	17
	25-34	122	14	12	12	10
	35-44	120	12	10	10	11
	45-54	114	12	10	9	9
	55-64	119	12	10	9	10
	65-74	125	11	9	8	10
	75+	129	13	9	8	11

#### 4.4 Mean intake and contribution to calories and macronutrients, by sex

Table 6 provides a breakdown of intakes and the contribution combined categories made to calories and macronutrients in adults (16+y) living in Scotland, by sex in 2021. Annex 2 and 3 provides a full breakdown by individual food categories.

Average daily intakes of discretionary foods were very similar between males (60g/d, SD: 64g/d) and females (61g/d, SD:55g/d) in 2021, however the contribution these foods made to intakes of energy, fats and free sugars was greater among females compared to males. In contrast, males consumed a greater quantity of sugar-containing soft drinks compared to females (89g vs. 66g/d, SD: 211g vs. 159g/d) and, although the contribution to energy was similar between males and females, these drinks contributed more to intakes of free sugars in males (10% vs. 8%). As noted within the Limitations section, differences in the contribution made by categories between demographic groups may be influenced by differences in overall intakes.



Whilst the contribution of sweet biscuits and ice cream and lollies to energy was similar, cakes, sweet pastries and puddings, crisps and savoury snacks and confectionery accounted for a greater proportion of energy in females compared to males (Annex 2). Similarly, all discretionary foods (with the exception of ice cream and ice lollies) contributed more to intakes of total fat among females compared to males.

Males consumed a greater quantity of the additional categories combined (137g/d, SD: 147g/d) compared to females (112g/d, SD: 109g/d), and a greater proportion of energy, fats and free sugars came from these foods in 2021. With the exception of yoghurts, fromage frais and dairy desserts, average intakes of all additional categories was greater among males (Annex 3).

*Table 6: Mean intakes and contribution to calories and macronutrients in adults (16+y) living in Scotland, in 2021, by sex (n=3042)*

		Mean intake (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Total discretionary foods	Male	60	12	15	16	25
	Female	61	15	19	20	33
Sugar-containing soft drinks	Male	89	1	0	0	10
	Female	66	1	0	0	8
Total additional foods	Male	137	14	12	11	12
	Female	112	12	9	9	10

#### **4.5 Mean intake and contribution to calories and macronutrients, by SIMD**

Table 7 provides a breakdown of intakes and the combined contribution categories made to calories and macronutrients in adults (16+y) living in Scotland, by SIMD in 2021. Annex 2 and 3 provides a full breakdown by individual food categories.

Overall, individuals living in the least deprived communities consumed the greatest quantity of discretionary foods (68g/d, SD: 63g/d) and those in the most deprived consumed the lowest (52g/d, SD: 54g/d). The contribution of these foods to intakes of energy, fats and free sugars varied across SIMD groups, and by individual discretionary categories (Annex 2) with no obvious pattern. For example, the contribution of sweet biscuits to intakes of energy ranged from 3% in SIMD 2 to 5% in SIMD groups 1, 3 and 5. Similarly, the contribution of confectionery to free sugars intake was 9% within SIMD groups 1 and 2, 7% in SIMD 4 and 10% in SIMD groups 3 and 5.

Intakes of sugar-containing soft drinks was highest among those living in the most deprived communities (113g/d, SD: 223g/d) as was their contribution to free sugars intake (14%). The contribution of these drinks to intakes of free sugars generally declined with decreasing levels of deprivation (14% in SIMD 1 compared to 6% in SIMD 5).

In relation to the additional categories, individuals living in SIMD 3 consumed the greatest quantity (131g/d, SD:129g/d), with those in the most deprived consuming the

least (109g/d, SD: 124g/d). The contribution of these additional foods to calories and macronutrients was generally similar across the SIMD groups, with the exception of SIMD 2 where these foods made a greater contribution compared to other SIMD groups. Pizza and ready meals in particular contributed a greater proportion to intakes of energy, fats and free sugars in SIMD 2 compared to other SIMD groups.

*Table 7: Mean intakes and contribution to calories and macronutrients in adults (16+y) living in Scotland, in 2021, by SIMD (n=3042)*

		Mean intake (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Total discretionary foods	1=Most Deprived	52	13	15	17	27
	2	55	13	17	16	24
	3	66	15	18	20	34
	4	61	14	16	17	29
	5= Least Deprived	68	15	18	19	33
Sugar-containing soft drinks	1=Most Deprived	113	2	0	0	14
	2	104	2	0	0	12
	3	71	1	0	0	8
	4	42	1	0	0	5
	5= Least Deprived	59	1	0	0	6
Total additional foods	1=Most Deprived	109	12	10	9	8
	2	129	15	13	13	15
	3	131	12	10	10	9
	4	121	12	10	10	11
	5= Least Deprived	128	13	10	10	11

## 5. Consumers of discretionary and additional foods and drinks

As shown in tables 3 and 4, the proportion of consumers of each individual category ranged from 6% (ready meals) to 54% (breakfast cereals). Therefore, intakes within consumers only will be greater than those presented for the total population. Tables 8 and 9 provide a breakdown of mean intakes and contribution of discretionary and additional categories to calories and macronutrients among adults consumers (16+y) living in Scotland, in 2021.

Among consumers, the mean (SD) intake from all discretionary foods was 74g/d (58g/d), with an additional 299g/d (261g/d) coming from sugar-containing soft drinks. On average, discretionary foods and drinks provided 301kcal per day, accounting for 18% of total energy intakes among consumers. This contribution rose to 19% and 21% of total fat and saturated fat intakes, and 44% of free sugars intakes.

The mean (SD) intake of additional foods among consumers was 151g/d (127g/d), with 16% of total energy intakes coming from these foods, and 13% of total fat, saturated fat and free sugars intake.

*Table 8: Mean intakes and contribution of discretionary foods and drinks to calories and macronutrients in adults (16+y) living in Scotland, in 2021 (consumers only)*

Food Group	% consumers in total sample	Mean intake (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Cakes, sweet pastries & puddings	39%	52	9	10	11	20
Sweet biscuits	46%	33	9	10	13	21
Confectionery	31%	33	9	11	16	29
Crisps & savoury snacks	33%	27	8	11	3	1
Ice cream & ice lollies	14%	41	5	7	11	8
Sugar-containing soft drinks	26%	299	5	0	0	35
<b>Total discretionary foods (excluding sugar-containing soft drinks) *</b>	<b>82%</b>	<b>74</b>	<b>17</b>	<b>21</b>	<b>22</b>	<b>36</b>
<b>Total discretionary foods and drinks *</b>	<b>86%</b>	<b>159</b>	<b>18</b>	<b>19</b>	<b>21</b>	<b>44</b>

*\*Note: total discretionary food and drink values do not equal the sum of the individual categories within the consumer only analyses. This is because consumers do not necessarily consume across all categories.*

*Table 9: Contribution of additional foods to intakes of calories and macronutrients in adults (16+y) living in Scotland, in 2021 (n=3042)*

Food Group	% consumers in total sample	Mean (g/d)	% Total energy	% Total fat	% Saturated fat	% Free sugars
Pizza	11%	160	21	21	23	13
Ready Meals	6%	201	20	22	23	13
Breakfast cereals	54%	84	10	5	4	10
Roast potatoes, chips and similar roasted potato products	33%	63	7	7	4	0
Yoghurts, fromage frais and dairy desserts	29%	83	5	6	9	11
<b>Total additional foods *</b>	<b>82%</b>	<b>151</b>	<b>16</b>	<b>13</b>	<b>13</b>	<b>13</b>

*\*Note: total additional food values do not equal the sum of the individual categories within the consumer only analyses. This is because consumers do not necessarily consume across all categories.*

## 6. Limitations

There are several limitations associated with these analyses:

- Category definitions are different to previous FSS reports on dietary intake, for example those using data from the Living Cost and Food Survey (LCFS). Therefore results are not directly comparable.
- Misreporting of intake is a known issue for all dietary surveys and studies. Most often this leads to under-reporting where items are intentionally not consumed or are forgotten and unreported. Consequently, reported intakes of discretionary food and drink products and additional food categories may be subject to misreporting. Additionally, respondents may have consumed different foods and drinks during survey days compared with their normal routine. As noted within Table 1, the average adult in Scotland consumed 1632 kcal per day. This is considerably lower than average energy requirements and improbable given the proportion of the population currently living with overweight and obesity.
- Similarly, differences in total energy intakes between demographic groups will influence the contribution individual categories make to overall intakes of calories and nutrients. Females, those aged 65+ years and those in the most deprived households reported the lowest calorie intakes within the SHeS. It should also be noted that, on average, men require more calories than women.
- Dietary estimates in this dataset are based on two days of diet recall. Given that some of these categories are perhaps not consumed daily, it is possible that some respondents may have consumed these foods and drinks outside of the surveyed period. This issue may be exacerbated within the analyses of intakes within consumer only populations. Future analyses of this dataset should consider adjusting for 'usual intakes' which can better reflect individual-to-individual variation of intakes within a group.
- These data have a high degree of variability, with a large proportion of non consumers included.
- No statistical testing to compare differences in intakes between categories and groups has been carried out. However, analyses have been conducted on survey-weighted estimates intended to be representative of the population and therefore results are reflective of patterns of intake in Scotland.

## 7. Discussion and conclusion

These analyses demonstrates that estimated intakes of total discretionary food and drink products represent 15% of average calorie intake, among adults (16+y) in Scotland. This increases to 28% when combined with the total additional food categories. These findings provide further support for action to reduce population intakes of HFSS foods and drinks.

The 15% from discretionary foods and drink, and 18% within consumers only, is lower than the [20% reported within the previous report on estimation of food and nutrient intakes from food purchase data in Scotland between 2001 and 2018.](#)

This is likely due to a combination of factors, including differences in methodology, food and drink categorisation, different data years and limitations associated with under-reporting outlined above. For example, intakes derived from LCFS data are based on a methodology developed to convert food and drink purchase into dietary intakes whereas information on dietary intakes is collected directly within the SHeS using Intake24. Additionally, average overall energy intakes were found to be higher within the LCFS data.

In general, the results show that discretionary foods make the biggest contribution to energy and free sugars intakes within women and those in the oldest age groups whereas discretionary drinks accounted for the greatest share in men, younger people and those in the most deprived households. These findings also follow on from previous analyses conducted by Newcastle University using data collected as part of the 2018 pilot of Intake24 within SHeS (unpublished). The results for intakes of discretionary foods are similar to those presented in this report. The findings on discretionary foods are also similar to data published for 2016/17-2018/19 within the UK National Diet and Nutrition Survey (NDNS). For example, the contribution of biscuits, puddings, buns, cakes, pastries and fruit pies, ice cream, savoury snacks, sugar and chocolate confectionery and sugar containing soft drinks to intakes of total energy within 19-64 year olds was 15%. Similarly, the contribution of yogurt, fromage frais and other dairy desserts and breakfast cereals within 19-64 year olds was found to be 2% and 4% within the NDNS compared to 2% and 5% found for 16+ years within this current report.

[Access the National Diet and Nutrition Survey \(NDNS\): results from years 9 to 11 \(2016 to 2017 and 2018 to 2019\).](#)

These findings are accompanied by additional FSS analyses of overall dietary intakes by SIMD<sup>3</sup>, using 2021 SHeS data. The report found key differences in intakes by SIMD, with diets of those living in the most deprived areas being generally lower in fruit, vegetables and fibre, and higher in energy density and red/red processed meat than those in the least deprived areas. Average total fat, saturated fat and free sugars intakes as a proportion of energy were similar between the most and least deprived groups. A key difference by SIMD found within this current report was in relation to sugar-containing soft drinks. Intakes of these drinks was highest among those living in the most deprived communities as was their contribution to free sugars intake. Further analyses is required to understand the relative contribution of other food and drink categories to dietary intakes by SIMD.

Overall, these analyses provides an up-to-date view of intakes of discretionary foods and drinks, alongside additional HFSS categories to inform development of policy to improve diet and related health, including any future restriction on the promotion of these foods and drinks. The findings demonstrate that discretionary and additional foods contribute substantially to intakes of calories and nutrients of public health concern. In total, these categories contributed 28% to average intakes of calories, 18% to average intakes of total fat and saturated fat and 49% to average intakes of free sugars among adults in 2021. Given that diet in Scotland is too high in saturated fat and free sugars in particular, measures which support consumers to consume fewer

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<sup>3</sup> Report in preparation

HFSS products (including discretionary foods and drinks) would contribute towards achieving our Scottish Dietary Goals.

Additional topics and considerations for future analyses could include:

- Contribution of foods and drinks to energy density.
- Frequency of consumption, including the proportion of individuals consuming particular foods multiple times each day.
- Intakes of a broader range of foods and drinks, including relative contribution to calories and macronutrients.
- Assessing the statistical significance of differences in intakes between demographic groups.
- Differences in contribution of high-fibre and other breakfast cereals to intakes of energy and macronutrients.

## 8. Annex 1 : Detailed category definitions

FSS Category Name	Food Codes (names)	Excluding food description code (name)	Including only food description code (name)
Sweet biscuits	<ul style="list-style-type: none"> <li>• 7 (BISCUITS)</li> </ul>	<ul style="list-style-type: none"> <li>• 7649 (Bread sticks (e.g. Grissini))</li> <li>• 251 (Cheese biscuit (e.g. cheddars, cheese savouries)), (Mini cheddars)</li> <li>• 252 (Cheese sandwich biscuits (e.g. Tuc cheese sandwich))</li> <li>• 3973 (Corn cakes/thins)</li> <li>• 7650 (Cornish wafer)</li> <li>• 8330 (Cracker, reduced fat)</li> <li>• 258 (Crackerbread original (e.g. Ryvita)), (Melba toast)</li> <li>• 256 (Crackerbread wholegrain (e.g. Ryvita)), (Crispbread Rye with or without seeds (e.g. Ryvita)), (Multigrain crispbreads (e.g. Ryvita)), (Ryvita thins)</li> <li>• 255 (Cream cracker)</li> <li>• 273 (Ice cream cone (no ice cream)), (Plain ice cream wafer (no ice cream))</li> <li>• 3267 (Japanese rice crackers), (Rice cake)</li> <li>• 266 (Matzos)</li> <li>• 267 (Oatcakes / Oat cakes)</li> <li>• 3236 (Rice cake, savoury flavoured (e.g. Snack a Jacks))</li> <li>• 279 (Ritz / Saltines / Tuc), (Tuc crackers)</li> <li>• 10062 (Savoury cracker (e.g. Sesame and poppy thins, butter puffs, onion crackers, monaco))</li> <li>• 11242 (Sunbites crispy crackers (crisps))</li> <li>• 274 (Water biscuit)</li> <li>• 7652 (Wholemeal cracker (e.g. Farmhouse cracker))</li> </ul>	
Cakes, sweet pastries & puddings	<ul style="list-style-type: none"> <li>• 8 (BUNS CAKES PASTRIES AND FRUIT PIES)</li> <li>• 9 (PUDDINGS)</li> </ul>	N/A	N/A

Crisps & savoury snacks	<ul style="list-style-type: none"> <li>• 42 (CRISPS AND SAVOURY SNACKS)</li> </ul>	<ul style="list-style-type: none"> <li>• 8033 (Coated and flavoured peanuts (e.g. Nobby's Nuts))</li> <li>• 8155 (Ryvita minis)</li> </ul>	N/A
Confectionery	<ul style="list-style-type: none"> <li>• 43 (SUGAR CONFECTIONERY)</li> <li>• 44 (CHOCOLATE CONFECTIONERY)</li> </ul>	<ul style="list-style-type: none"> <li>• 7762 (Ice lolly)</li> <li>• 2262 (Ice lolly, juice-based (e.g. Fruit pastilles))</li> </ul>	N/A
Sugar-containing soft drinks	<ul style="list-style-type: none"> <li>• 57 (SOFT DRINKS NOT LOW CALORIE)</li> </ul> <p><i>Note, this excluded fruit juices and teas/coffees with added sugar.</i></p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	N/A
Ice cream and ice lollies	<ul style="list-style-type: none"> <li>• (ICE CREAM)</li> <li>• (SUGAR CONFECTIONERY)</li> </ul>	N/A	<ul style="list-style-type: none"> <li>• 7762 (Ice lolly)</li> <li>• 2262 (Ice lolly, juice-based (e.g. Fruit pastilles))</li> </ul>
Breakfast cereals	<ul style="list-style-type: none"> <li>• 6 (OTHER BREAKFAST CEREALS)</li> <li>• 5 (HIGH FIBRE BREAKFAST CEREALS)</li> </ul>	N/A	N/A
Yoghurt, fromage frais and dairy desserts	<ul style="list-style-type: none"> <li>• 15 (YOGHURT FROMAGE FRAIS AND DAIRY DESSERTS)</li> </ul>	N/A	N/A
Pizza	<ul style="list-style-type: none"> <li>• (PASTA RICE AND OTHER CEREALS)</li> </ul>	N/A	<ul style="list-style-type: none"> <li>• 11511 (Vegetable pizza, takeaway/restaurant)</li> <li>• 10029 (Meat pizza (e.g. Hawaiian, pepperoni, meat feast))</li> <li>• 10028 (Vegetable pizza, Vegetable pizza, stuffed crust, takeaway/restaurant,)</li> <li>• 10030 (Chicken pizza, stuffed crust, Chicken pizza)</li> <li>• 10032 (Mixed pizza (e.g. chicken and</li> </ul>



			<p>bacon), Mixed pizza (e.g. chicken and bacon), stuffed crust)</p> <ul style="list-style-type: none"> <li>• 11514 (Meat pizza (e.g. Hawaiian, pepperoni, meat feast), stuffed crust, takeaway/restaurant)</li> <li>• 11508 (Meat pizza (e.g. Hawaiian, pepperoni, meat feast), takeaway/restaurant)</li> <li>• 10026 (Cheese and tomato pizza (e.g. Margherita)</li> <li>• 11516 (Cheese and tomato pizza (e.g. Margherita), stuffed crust takeaway/restaurant)</li> <li>• 11512 (Mixed pizza (e.g. chicken and bacon) takeaway/restaurant)</li> <li>• 11509 (Chicken pizza takeaway/restaurant)</li> <li>• 11510 (Cheese and tomato pizza (e.g. Margherita), takeaway/restaurant)</li> <li>• 11512 (Mixed pizza (e.g. chicken and bacon), stuffed crust, takeaway/restaurant)</li> <li>• 10031 (Fish pizza (e.g. with anchovies))</li> <li>• 11511 (Vegetable pizza, takeaway/restaurant)</li> <li>• 2743 (Lower calorie pizza (e.g. Delight, Leggera), vegetarian, takeaway/restaurant)</li> <li>• 10033 (Cheese feast, loaded cheese, 4 cheese pizza)</li> <li>• 10034 (Meat pizza (e.g. Hawaiian,</li> </ul>
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			pepperoni, meat feast), stuffed crust)
Ready meals	<ul style="list-style-type: none"> <li>• 1 (PASTA RICE AND OTHER CEREALS)</li> <li>• 23 (BEEF VEAL AND DISHES)</li> <li>• 27 (CHICKEN AND TURKEY DISHES)</li> <li>• 34 (OTHER WHITE FISH SHELLFISH &amp; FISH DISHES)</li> <li>• 37 (VEGETABLES NOT RAW)</li> <li>• 24 (LAMB AND DISHES)</li> <li>• 25 (PORK AND DISHES)</li> </ul>		<ul style="list-style-type: none"> <li>• 8049 (Macaroni cheese, ready meal)</li> <li>• 8011 Low-fat macaroni cheese, ready meal</li> <li>• 9245 Spaghetti bolognese, ready meal</li> <li>• 3187 Beef lasagne, ready meal, reduced fat (e.g. Weight watchers)</li> <li>• 1347 Beef lasagne, ready meal</li> <li>• 9386 Chicken curry, ready meal, with rice (e.g. balti, tikka masala)</li> <li>• 9244 Chilli con carne, ready meal, with rice</li> <li>• 8666 Pasta carbonara (e.g. spaghetti), ready meal</li> <li>• 10298 Chicken in a tomato/BBQ sauce with potato wedges, ready meal, reduced fat</li> <li>• 4283 Reduced-fat cottage pie (beef), ready meal (e.g. Weight Watchers), Sausage with vegetable mash, ready meal, reduced fat (e.g. Weight Watchers)</li> <li>• 3730 Chicken and prawn paella, ready meal, reduced fat, Mixed meat/seafood paella</li> <li>• 10755 Sweet and sour chicken, ready meal, with rice</li> </ul>

			<ul style="list-style-type: none"> <li>• 6393 Chicken and pasta ready meal</li> <li>• 9328 Prawn curry, ready meal, with rice</li> <li>• 1356 Cottage pie (beef), ready meal</li> <li>• 8588 Vegetable bake, ready meal, Vegetable bake</li> <li>• 5320 Mousakka, ready meal</li> <li>• 2734 Sweet and sour chicken, ready meal, with rice, reduced fat</li> <li>• 9300 Spaghetti bolognese, ready meal, reduced fat (e.g. Weight Watchers)</li> <li>• 5321 Shepherd's pie (lamb), ready meal</li> <li>• 7094 Chicken korma, curry, ready meal, with rice</li> <li>• 9318 Beef curry, ready meal, with rice</li> <li>• 9270 Fishermans pie/ocean pie, ready meal, Fish pie, toddler meal (e.g. Little Dish, Annabel Karmel)</li> <li>• 1116 Chicken/turkey roast dinner, ready meal</li> <li>• 5627 Chicken curry, ready meal, with rice, reduced fat</li> <li>• 8038 Sweet and sour vegetables with rice, ready meal</li> <li>• 1352 Roast pork dinner, ready meal</li> </ul>
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Roast potatoes, chips and similar processed potato products	• 38 (CHIPS FRIED & ROAST POTATOES AND POTATO PRODUCTS)	N/A	N/A
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## 9. **Annex 2: Full data tables**

[Access the full data tables for discretionary and additional categories.](#)