



An analysis of the energy content of sweet discretionary products in the out of home sector in Scotland - 2022

30th January 2023

1. Background

Data commissioned by Food Standards Scotland (FSS) has consistently shown that cakes, pastries and biscuits are among the top ten products purchased out of home (OOH)¹. These foods are considered a discretionary part of the diet as they convey little or no nutritional benefit and are not part of the Eatwell Guide. They are typically consumed as a snack or 'treat' food and not as a main component part of a meal. It is estimated that on average 25% of the calories we consume come from food eaten OOH².

Limited data exists around the calorie content of these foods from OOH. Food Standards Agency Northern Ireland (FSA NI) explored the nutritional content of scones available from high street coffee shops, and found on average 408 kcal per scone³. This equates to just over 20% of the average recommended calorie intake for a female adult per day of 2,000 kcal. Public Health England (PHE) suggested as part of the 'One You' campaign that adults should aim for around 400 kcal for breakfast, 600 for lunch and 600 for dinner⁴. For a typical adult requirement of 2,000 kcal this would only allow for 400 kcal in the day for all remaining snacks and drinks.

Previous data gathered in summer 2021 by FSS on calorie information in branded OOH businesses in Scotland focused on main meals, hot drinks and other items more commonly ordered from a restaurant setting⁵. Recent FSS data shows that 8% of all OOH purchases in 2021 included cakes, pastries and biscuits, and that snacking occasions make up the largest proportion of OOH trips in Scotland at 36%. This is a higher proportion than breakfast, lunch or evening meals¹. However, FSS had limited data on the calorie content of cakes, pastries, biscuits or sweet baked goods. This highlights the importance of exploring the calorie content of these items due to their high frequency of consumption OOH and contribution to overall diet.

Mandatory calorie labelling regulations in England were introduced in April 2022, which has resulted in an increase in the number of OOH businesses providing this information in store and online. Gathering data on these food items allow any changes to average calorie contents (e.g. as a result of reformulation and/or portion size reduction) and the potential impact of the introduction of mandatory calorie labelling regulations to be assessed over time.

As part of Scottish Government's OOH action plan⁶, FSS have been tasked with developing a monitoring and evaluation strategy to assess the impact of the suite of measures, of which calorie reduction is a key indicator of success. This research aims to support the development of this strategy.

¹ <https://www.foodstandards.gov.scot/publications-and-research/publications/out-of-home-scotland-2021>

² *Sugar Reduction: Achieving the 20%: A technical report outlining progress to date, guidelines for industry, 2015 baseline levels in key foods and next steps*. 2017, Public Health England.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/604336/Sugar_reduction_achieving_the_20_.pdf

³ <https://www.food.gov.uk/document/nutritional-content-of-scones-report>

⁴ <https://www.gov.uk/government/news/plans-to-cut-excess-calorie-consumption-unveiled>

⁵ <https://www.foodstandards.gov.scot/publications-and-research/publications/provision-of-calorie-and-nutrition-information-by-branded-out-of-home-businesses-in-scotland>

⁶ <https://www.gov.scot/publications/diet-and-healthy-weight-out-of-home-action-plan/>

2. Aims & objectives

- To gather nutritional data on commonly consumed sweet discretionary products (excluding confectionery) sold OOH.
- To ascertain baseline data for which any change in calorie content of these products can be assessed over time.
- To use the data and methodology to inform a monitoring and evaluation strategy for calorie reduction in OOH foods.
- To use the data to engage with businesses to facilitate calorie reduction and reformulation of these products.

3. Methodology

An online website search of OOH businesses selling the products in scope was undertaken between May and September 2022. The calories from online menus for one portion of each individual product was captured in Microsoft Excel, alongside the name of the OOH business, the type of product and the date the information was collected. Some in store data collection also took place via taking photographs of the product and the corresponding calorie information as some online menus don't list the full range of products sold in store e.g. Marks & Spencer's café.

3.1 Products in scope

- Sweet products e.g. chocolate muffins. Examples include, but not limited to, scones, cakes, sweet muffins, sweet pastries, biscuits, and tray bakes.
- Products picked are those expected to be consumed outside of mealtimes, e.g. during a mid-morning or afternoon coffee/tea break, or after a meal but not comprising a meal (e.g. dessert shops).
- Pre-packed and non-pre-packed items.

3.2 Products out of scope

- Savoury products, e.g. sausage muffins.
- Confectionery e.g. chocolates, sweets, fudges and toffees.
- Products found in establishments that could be consumed after a meal during the same sitting e.g. a dessert after a dinner, so not technically "outside of mealtimes".
- Products that are designed to be "built" or "make your own" with a variety of options to choose from, e.g. pancakes with toppings.

3.3 Businesses explored

Eighteen OOH businesses have been explored (see Appendix 1), the majority of which were large UK wide branded chains that operate in Scotland. The data included is essentially a "snapshot" of current offerings so will likely be subject to seasonal changes over coming months.

3.4 Categories of products

Table 1 below describes how the products were categorised and provides examples for each category.

Table 1 – List of categories and the products included within the category.

Category	Examples of products included within category
Biscuits	Biscuits, cookies, shortbread, biscoff
Cakes	Cakes, sponges, roulade, sticky toffee pudding, crumbles
Cold desserts	Cheesecake, tiramisu, ice cream sundaes, cookie dough, gateau
Doughnuts	Doughnuts, dough rings, yum yums, yum nuts
Muffins	Various types
Sweet pancakes & waffles	Sweet pancakes, waffles and crepes
Sweet buns & loafs	Loaf cakes, panettone
Sweet pastries	Croissants, sweet pies, tarts, chouxnut, torte, eclairs, Danish, swirls, twists
Sweet scones	Various types
Tray bakes	Squares, shortcakes, brownies, blondies, flapjacks, rocky road, tiffin, slices, bars, balls

4. Results

Table 2 – List of food categories including the number of products recorded and the average, lowest and highest calories for products.

Food category	Number of products recorded	Average* (kcal) per portion	Average (kcal) as % of recommended daily intake**	Lowest (kcal) per portion	Highest (kcal) per portion
Total	663	465	23	43	1639
Biscuits	59	330	17	43	627
Cakes	73	492	25	280	1061
Cold desserts	86	709	35	236	1639
Doughnuts	38	314	16	195	544
Muffins	183	542	27	310	847
Sweet pancakes & waffles	48	633	32	166	1132
Sweet buns & loafs	23	377	19	205	491
Sweet pastries	77	343	17	155	621
Sweet scones	19	465	23	287	871
Traybakes	57	365	18	121	690

* Median values have been presented

** 2,000 kcal

Table 2 shows that the highest number of items recorded was for muffins at 183 products and the lowest for sweet scones at 19 products. With regards to the specific food categories, cold desserts had the highest average value recorded at 709 kcal and doughnuts the lowest at 314 kcal. For all of the products explored the average calorie content per portion was 465 kcal.

The top three lowest value items were from biscuits (43 kcal), traybakes (121 kcal) and sweet pastries (155 kcal). The top three highest value items were from cold desserts (1,639 kcal), sweet pancakes and waffles (1,132 kcal) and cakes (1,061 kcal).

Table 3: Distribution of reported calorie contents by food category.

Food category	Less than 325* kcal per portion	Between 325 – 600 kcal per portion	Between 601 – 800 kcal per portion	Between 801 – 1,000 kcal per portion	Between 1,001 – 1,400 kcal per portion	More than 1,400 kcal per portion
Biscuits	47%	49%	3%	-	-	-
Cakes	4%	77%	11%	7%	1%	-
Cold desserts	1%	35%	27%	21%	12%	5%
Doughnuts	58%	42%	-	-	-	-
Muffins	1%	77%	22%	1%	-	-
Sweet pancakes & waffles	10%	35%	31%	15%	8%	-
Sweet buns & loafs	22%	78%	-	-	-	-
Sweet pastries	43%	56%	1%	-	-	-
Sweet scones	5%	79%	11%	5%	-	-
Traybakes	32%	67%	2%	-	-	-

* Note 325 kcal limit as per the UK Government sugar reduction programme technical guidance⁷ suggested maximum calories per portion

Table 3 shows that doughnuts have the highest percentage of products that are less than 325 kcal and muffins and cold desserts have the least at 1% each. The majority of products for all categories, apart from doughnuts, were between 325 and 600 kcal. Cold desserts were the only category to have products that were more than 1,400 kcal at 5%.

⁷ *Sugar Reduction: Achieving the 20%: A technical report outlining progress to date, guidelines for industry, 2015 baseline levels in key foods and next steps.* 2017, Public Health England.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/604336/Sugar_reduction_achieving_the_20_.pdf

Table 4: Distribution of reported calorie contents for all products.

Products containing*:	% recorded for all products
Less than 325 kcal	18%
Between 325 – 600 kcal	61%
Between 601 – 800 kcal	14%
Between 801 – 1,000 kcal	5%
Between 1,001 – 1,400 kcal	2%
More than 1,400 kcal	1%

*Note 325 kcal limit as per the UK Government sugar reduction programme technical guidance⁸ suggested maximum calories per portion

Table 4 condenses the information in table 3 by combining all products. It shows that the majority of products (61%) were between 325 and 600 kcal, but over one fifth (22%) of products were more than 600 kcals.

5. Discussion

Snacking, which can be defined as consumption of a food product out with breakfast, lunch or evening meal, makes up the largest proportion of eating out occasions in Scotland⁹. It is clear from the data gathered that a large amount of high calorie items are available OOH for people to consume out with typical meal occasions. It is important to note, however, that some of the businesses explored only have a small presence in Scotland currently, i.e. Creams has one outlet in Scotland and Kaspas has three.

Tables 2 to 4 in the results section show the wide range of calories available from the businesses explored, highlighting that lower calorie options are possible and could therefore feature more highly on menus. However, around a fifth were over 600 kcal or more, or 30% of the recommended daily intake of 2,000 kcal for a female.

FSS data shows that coffee was the item purchased most frequently OOH in 2021 at 22% of all trips, and tea also featuring in the top ten (7.2% of trips). Both hot drinks and sweet snacks were purchased more frequently than main meals OOH in 2021, with 190 and 144 million trips respectively, compared to 132 million trips for main meals in Scotland⁹. Many of the sweet products explored in this study are consumed alongside hot drinks such as coffee and tea. A quick review of online drinks menus from both Starbucks¹⁰ and Costa Coffee¹¹ found a number

⁸ *Sugar Reduction: Achieving the 20%: A technical report outlining progress to date, guidelines for industry, 2015 baseline levels in key foods and next steps.* 2017, Public Health England.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/604336/Sugar_reduction_achieving_the_20_.pdf

⁹ <https://www.foodstandards.gov.scot/publications-and-research/publications/out-of-home-scotland-2021>

¹⁰ <https://www.starbucks.co.uk/nutrition> (per September 2022)

¹¹ <https://www.costa.co.uk/menu/> (per September 2022)

of coffee options above 500 kcal (33 from Starbucks and 8 from Costa Coffee). This shows that, in combination, consumers could be eating over 1,000 kcal in a sitting if a sweet snack was accompanied with a high calorie coffee.

Cold desserts were the only category explored that featured products with items more than 1,400 kcal. Businesses marketed as “dessert shops” are of particular concern due to the nature of these businesses being solely to consume dessert type foods (few savoury options were sold), typically in an afternoon or evening. Exploration of the websites^{12,13} of these business types found they appear to be aimed at young people due to the design and nature of what is available. This included the ability to “build” signature desserts, foods being marked on menus as “Instagramable”, high quality eye-catching pictures of items, and wording such as “dessert experience”, “strictly indulgent content only” and “join the squad”.

With regards to an “ideal” value or a guideline for the calories of these items, a number of reports have offered suggestions. The cakes category in the UK Government sugar reduction programme technical guidance¹⁴ suggested a maximum limit of 325 kcal per portion. The above data shows that businesses can and do provide items that fit within these guidelines, as shown in Table 4 where 18% of products are less than 325 kcal. This shows businesses are capable of providing lower calorie products, but there are a high proportion of items sold that go beyond these maximum values.

In the future, it is anticipated that FSS will re-run this analysis to assess changes over time, as it may be the case that businesses undertake reformulation as a response to menu calorie labelling. This project also highlights the importance of taking forward calorie labelling on menus in Scotland in order to inform consumers and businesses about how many calories they are purchasing and providing, and to support reformulation.

6. Conclusion

The calorie values found in the sweet discretionary OOH products explored in this study are of great concern due to the high frequency they are purchased, and FSS supports using this as a call to action for businesses to reduce calories within them. The data shows that there is huge scope for reduction which could be achieved in the most part simply by reducing portion size, as most of these products are non-prepacked foods. This research sits under the FSS objective from Scottish Government’s OOH action plan to develop a monitoring and evaluation strategy where calorie reduction is a key indicator of success, and re-running this study in the future will help inform this.

¹² <https://www.creamscafe.com/> (per September 2022)

¹³ <https://kaspas.co.uk/> (per September 2022)

¹⁴

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/604336/Sugar_reduction_achieving_the_20_.pdf

7. Appendix

7.1 Appendix 1: List of out of home businesses explored.

Businesses
Asda café
Baker & Baristas
Café Nero
Coffee Republic
Costa Coffee
Creams
Dobbies
Greggs
Kaspas
Marks & Spencer café
Morrisons café
Muffin Break
Patisserie Valerie
Pret a Manger
Puddo
Starbucks
Tesco café
Tim Hortons