

# **Out of Home Food Intake and Behaviours Among Adults Living in Scotland, 2025**

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**Food**  
**Standards**  
**Scotland**  

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## Abbreviations

FSS	Food Standards Scotland
HERC	Human Ethical Review Committee
HFSS	High fat, salt and sugar
OOH	Out of Home
SHeS	Scottish Health Survey
SD	Standard Deviation
SIMD	Scottish Index of Multiple Deprivation
TM Panel	Taylor McKenzie Research Panel
TMck	Taylor McKenzie Research and Marketing Ltd

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## Executive Summary

Out-of-home (OOH) food and drink consumption is a routine component of diets in Scotland, with important implications for nutrition and health. This study provides a comprehensive, mixed-methods assessment of who eats OOH, how often, from which outlets, what motivates these behaviours, and how OOH food contributes to overall energy and nutrient intake.

A two-phase study design was used. Phase 1 comprised a web questionnaire of 1,012 adults living in Scotland, followed by three 24-hour dietary recalls completed over the course of one week. Phase 2 comprised in-depth qualitative interviews with 35 participants purposively sampled to reflect low, moderate, and high OOH consumers. The Phase 1 sample slightly over-represented females and urban residents as compared to national data. Patterns of OOH food consumption should be interpreted with these caveats in mind.

### Defining low, moderate, and high OOH consumption

Participants were classified as low, moderate, or high OOH consumers based on their reported frequency of using eight types of OOH food and drink (excluding alcohol) outlets in the past week. Overall, participants reported a mean of 7 OOH visits in the past week (median 6), with frequencies ranging from 0 to 46 visits. Based on the distribution of visits, participants were categorised as low OOH consumers ( $\leq 4$  visits per week), moderate consumers ( $>4$  to 7 visits), or high consumers ( $>7$  visits), with similar sample sizes in each group. Low OOH consumers included 22 participants (2% of the sample) who did not consume OOH food or drink in the previous week.

### OOH acquisition patterns

Food purchased “on the go” from ‘Supermarkets, convenience stores, and corner shops’ was the most common form of OOH, used by nearly 4 out of 5 respondents in the past week. ‘Quick-service restaurants/ takeaways’ such as McDonald’s, KFC, Burger King, Domino’s Pizza, Papa John’s, and independents (fish & chip, kebabs, etc.), were used more frequently than ‘Full-service restaurants’. Around one-third of respondents used food delivery apps, primarily for ready-to-eat meals rather than groceries. ‘Vending machines’ and ‘Pubs or bars’ were the least frequently used OOH outlets. High OOH consumers sourced food from a wide range of outlets, indicating a broad reliance on multiple OOH outlets rather than heavy use of a single outlet type.

## Who are high OOH consumers?

High OOH consumers were younger and more likely to be male, single, and employed full-time. They were only slightly more likely to reside in urban areas.

## Contribution of OOH food and drink to overall diet

OOH food and drink contributed to 21% of total calories consumed and 20-23% of saturated fat, fibre, free sugars, and salt.

High OOH consumers obtained nearly 30% of their energy intake from OOH sources, compared to 19% among moderate and 13% among low consumers, and a similar trend was seen across nutrients. In absolute terms, on average, high OOH consumers consumed more energy, fat, saturated fat, free sugars, and salt than low or moderate OOH consumers.

The top contributors to OOH energy intake were:

- Sandwiches including rolls and wraps (13.6%)
- Pasta, rice and other miscellaneous cereals including pizza (10.6%)
- Chips, fried and roast potatoes and potato products (7.3%)
- Chicken and turkey dishes (7.0%)
- Buns, cakes, pastries and fruit pies (5.1%)
- Other milk and cream including milky coffees (5.1%)
- Meat pies and pastries including sausage rolls (4.2%)

Generally, 'Sandwiches including rolls and wraps', 'Chips, fried and roast potatoes and potato products', 'Meat pies and pastries including sausage rolls', and 'Other milk and cream including milky coffees' were more important contributors to OOH energy intake than overall energy intake from all sources (difference >2 percentage points). In contrast, 'High fibre breakfast cereals' and 'Fruit' were more important contributors to overall energy intake from all sources than OOH energy intake (difference >2 percentage points).

## Motivations for OOH consumption

Taste was the main motivation across all groups, rated as very or extremely important by over three-quarters of respondents. However, motivations related to convenience, such as saving time, ease of access, being able to eat on the move, and avoiding cooking, were also rated very or extremely important. These factors were especially important among high OOH consumers. Treat and reward motivations and socialising were also important but varied less by OOH usage level. Cost considerations, particularly low price, were generally less influential than convenience and taste, although value for money remained relevant.

Qualitative findings also showed that most OOH occasions were low-key, everyday events rather than special occasions. Convenience dominated decision-making, with OOH food used to save time, reduce effort, and manage busy schedules. OOH food also served emotional and social functions, including rewarding oneself, lifting mood, and facilitating connection with others. High OOH consumers described eating out as normalised and habitual, moderate consumers framed it as a planned break from home cooking, and low consumers reserved it for special occasions. Cost and cleanliness were the most common concerns while eating OOH, while health was rarely a primary barrier, though many participants expressed a desire to reduce frequency or make healthier choices if affordability, availability, and information improved.

## **Conclusion**

OOH food and drink play a central role in everyday eating in Scotland and contribute to overall dietary intake, particularly among younger (16-34y), working adults and men. The findings strengthen the case for a comprehensive OOH approach that explicitly includes retail grab-and-go foods, meal deals, in-store hot food counters and delivery platforms, alongside clearer nutrient benchmarks, portion size guidance, reformulation targets and default healthier options. The private sector, from supermarket grocery retailers to independent cafés to multinational fast-food chains, plays a critical role in improving local food environments to make it easier for people across Scotland to make healthier choices. Given that taste and convenience are the primary drivers of OOH behaviour, it is essential to ensure healthier choices are as desirable, accessible, visible and convenient as less healthy ones. Policies and voluntary initiatives by the private sector that improve the availability, affordability, and appeal of healthier OOH options, particularly within convenience driven contexts have the potential to support healthier choices among people in Scotland.

# Chapter 1. Introduction

## 1.1. Background

Out of home (OOH) eating is increasingly commonplace in people's daily lives across Scotland. OOH refers to any food or drink (herein "food") bought and eaten away from home, including food "on the go"<sup>1</sup> and any takeaway or home-delivered ready-to-eat food. An analysis of [Kantar](#) (now Worldpanel by Numerator) data found that nearly everyone in Scotland (98%) visited the OOH environment in 2023 (1) and 2025 (unpublished data). These visits were to a range of outlets, from quick service restaurants such as McDonalds and KFC, to bakeries and sandwich shops such as Greggs and Subway, to meal deals at supermarket retailers such as Tesco and Londis (1). Indeed, foods "on the go" were the largest share of OOH visits, comprising more than half (59%) of the total OOH occasions in 2023 (1). OOH food consumed at the place of purchase ("dine in", 33%) or at home ("takeaway", 9%) made up much smaller proportions of OOH occasions in Scotland in 2023 (1).

Throughout this report, unless otherwise specified, "**out of home**" refers to food and drink from all of the following:

- Cafés, all types of restaurants, takeaways, pubs/bars, vending machines, workplace canteens, hotels, leisure and entertainment venues.
- Supermarkets and convenience stores who provide food "on the go", e.g., food purchased for immediate consumption, with the expectation that it will not be consumed within the establishment it was purchased.
- Places where food is purchased when commuting or travelling.
- Food delivery services, including online for ready to consume foods.
- OOH businesses in the public sector, including food provided for staff and visitors in health care settings.

Some evidence is emerging that OOH consumption varies across different sociodemographic groups in Scotland. An analysis of [Worldpanel by Numerator](#) data found that adults under 35 years old, and adults aged 55 years and older, had more OOH trips in 2021, on average, than adults aged 35 to 54 years: 162 and 165 versus 131 trips per year respectively (1). Those in social class C2DE<sup>2</sup> had more OOH trips

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<sup>1</sup> Foods purchased for immediate consumption, with the expectation that it will not be consumed within the establishment it was purchased.

<sup>2</sup> Skilled manual workers, semi-skilled and unskilled manual workers, apprentices and trainee of skilled workers, unemployed, off sick, casual workers without regular income.

in 2021, on average, than those in social class ABC1<sup>3</sup>: 182 versus 132 trips per year respectively (1). However, they spent less per trip, on average: £4.78 versus £6.32 per trip in C2DE versus ABC1 (1). The type of OOH outlets visited also varied by social class with those from C2DE visiting quick service restaurants, convenience stores, bakeries, and sandwich shops more frequently and those from ABC1 visiting coffee shops, cafés, pubs, and bars more frequently (1). According to the same data, consumers in rural areas visited OOH outlets more frequently than those in urban areas: on average, 185 trips in 2021 by rural consumers versus 135 trips by urban consumers (1). However, urban consumers spent more, on average, per trip: £6.13 versus £4.82 per trip by rural consumers (1). This is reflected in the types of OOH outlets rural versus urban consumers visited. Rural consumers were more likely to visit bakeries, sandwich shops, coffee shops, and cafés, whereas urban consumers had a higher proportion of visits to quick and full service restaurants and convenience stores (1). While these 2021 results provide valuable insights, more up-to-date information across a wider variety of sociodemographic characteristics would help guide policy to improve the healthfulness of the OOH food environment.

There is very limited data on the proportion of energy or nutrients that comes from OOH food in Scotland. The UK-wide National Diet and Nutrition Survey (2019-2023) found that OOH food accounted for 12% of energy intake (2). When restricted to only those participants who reported consuming OOH food, this percentage increased to 23% of energy intake (2). The contribution of OOH food to saturated fat, free sugars, and sodium was similar. Quantifying the contribution of OOH food to energy and nutrient intake in Scotland would help understand how policies to improve the healthfulness of the OOH food environment may impact on achievement of the Scottish Dietary Goals.

People's motivations to consume OOH food in Scotland have been explored in a few previous studies and offer insights into how to promote healthier OOH eating behaviours. A [qualitative study](#) of 63 frequent OOH consumers conducted in 2019 found that eating OOH was valued for its convenience, variety, treat value, satisfaction, social aspects, and perceived affordability (3). However, participants also identified drawbacks to eating OOH, including cumulative cost, reduced cooking skills, reduced social interaction compared with home eating, and poor healthfulness (3). The [Worldpanel by Numerator](#) data from 2021 described previously found that taste, ease, and quickness were the biggest motivators for eating OOH for all consumers, and especially for those from social class C2DE (1). The treat or reward value of OOH food and fancying a change were less frequently reported (1). While these previous studies offer clues as to what motivates people to consume OOH food, more up-to-date information is needed to understand how motivations vary across low versus high OOH consumers and across a greater variety of sociodemographic characteristics.

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<sup>3</sup> Professional in senior management in business, middle-management, business owners, junior management and other non-manual workers.

Broader food environment research underscores how prevalent OOH outlets are across Scotland and suggests there may be differences by deprivation. A recent analysis of [UK food hygiene rating data \(Scotland\)](#) data found that 59% of food outlets in Scotland were OOH, with over half of outlets in 30 of 32 local authorities classified as OOH (4). Further, the density of OOH outlets was almost double to retail outlets (1.9 versus 0.8 per km<sup>2</sup>) (4). The most deprived neighbourhoods had more takeaways and sandwich shops and fewer restaurants and cafés (4).

To date, several frameworks and policies have been proposed in Scotland to improve the healthfulness of the OOH food environment. To support the OOH sector in providing healthier foods, Public Health Scotland and Food Standards Scotland (FSS) are developing a voluntary [Eating Out, Eating Well Framework and Code of Practice for children's menus](#). The Scottish Government has also published a consultation on [mandating calorie labelling at the point of choice](#), though this action was paused in May 2023.

To summarise, nearly all adults in Scotland engage with the OOH sector, but how this OOH food contributes to overall diets and the underlying behavioural motivations remain under-researched across sociodemographic groups. Hence, the overall aim of this report was to understand, currently who in Scotland is and is not eating OOH regularly, how OOH food contributes to their overall diet, and what motivates people to eat or not eat OOH food.

## 1.2. Aims

The primary aims of this project were:

1. To identify the characteristics of high, moderate, and low OOH consumers in Scotland.
2. To assess the contribution of OOH food to the overall diet.
3. To gain deeper insights into OOH behaviours, especially the factors that influence the purchase and consumption of OOH food, across a range of frequency of OOH engagement (i.e., high, moderate, and low OOH consumers).

The secondary aims of the project were:

1. To assess the contribution of OOH sub-types to the overall diet.
2. To assess the contribution of main food groups to OOH intake.

## Chapter 2. Methodology

The project had two phases. In Phase 1, participants completed a web questionnaire (**Annexe 1**) followed by three 24-hour dietary recalls completed within a two-week period on randomly assigned days. In Phase 2, a subset of Phase 1 participants completed a short pre-task questionnaire (**Annexe 2**) on their most recent OOH purchase followed by an in-depth interview.

### 2.1. Survey sample

Participants were recruited from the Taylor McKenzie Research Panel (TM Panel) by sending an email introducing the survey, emphasising the importance of participating, describing what they will be asked to do and the incentive, as well as a link to the Participant Information Sheet (**Annexe 3**). The target sample size was 1,000 total participants, with specific quotas set for age groups, sex, and Scottish Index of Multiple Deprivation (SIMD) quintiles. Age quotas were: under 35 years, ~40%, 35–54 years, ~40%, 55 years and over, ~20%. Equal representation was sought across all SIMD quintiles.

**TM Panel** is a Scottish research panel comprising over 10,000 highly engaged panellists and is broadly representative of the Scottish population. Taylor McKenzie Research and Marketing Ltd (TMcK) recruits panellists from diverse sociodemographic backgrounds and geographic locations across Scotland. The panel includes individuals aged 16 years and over, with more than 98% of panellists reporting that they are not members of any other research panel, supporting the panel's uniqueness and research integrity. For more information on the panel: <https://tmpanel.uk/>.

The target sample size for in-depth qualitative interviews in Phase 2 was 35 participants. Similar to Phase 1, specific quotas were applied to ensure coverage across OOH consumption levels (approximately 20 high, 10 moderate, and 5 low consumers), sex (around 50% male and 50% female), age groups (around 40% under 35 years, 40% aged 35–54 years, and 20% aged 55 years and older), and deprivation (at least 20% from both the most deprived and least deprived quintiles).

### 2.2. Pilot testing

A pilot study was conducted in order to:

- Ensure all study documents (e.g., invitation letter, Participant Information Sheets, web questionnaire, and interview schedules) were easy to understand.

- Refine instructions to ensure they were understood in the same way by all participants.
- Ensure the survey and the online dietary intake tool (Intake24) were working in the same way across all platform types (e.g., smartphone versus computer versus tablet).
- The interview guide was pilot tested to ensure a smooth flow of discussion and that the questions and language were clear and understandable to participants.

Information from the pilot study was used to update study documents, the survey and Intake24. Changes included, for example:

- Amendments to the introduction of the survey, including adding a definition of OOH food and giving a list of the different options (e.g., food “on the go” from a supermarket, quick service restaurant, sit-down restaurant, etc.).
- A reordering of survey questions to improve flow.
- Added a clear summary of what is meant by ‘OOH food’ at the start of the interview to ensure consistent understanding at each phase of the survey.

### 2.3. Timeline for survey completion

Data collection occurred from September to November 2025. 99% of participants who completed the web questionnaire also completed dietary recalls.

Participants received a unique URL in their email which led them to complete the web questionnaire, after which they were directed to complete their first dietary recall using Intake24.

### 2.4. Web questionnaire

All participants self-administered a brief (<10 minutes) web questionnaire (**Annexe 1**). Participants were permitted to skip any question they did not feel comfortable answering.

### 2.5. 24-hour dietary recalls

Dietary recalls were conducted between 24<sup>th</sup> September and 18<sup>th</sup> November 2025. Three 24-hour dietary recalls were collected within a two-week period (97% within a one-week period) using Intake24 (<https://intake24.co.uk/>). Intake24 was developed by Newcastle University, originally with funding from FSS and is licenced under the [Open Government Licence](#). The version of Intake24 used for this survey was provided and

adapted by the University of Cambridge, based on the original, with technical advisory input from Newcastle University.

At the start of Intake24, participants were prompted to watch a brief video (<5 minutes) explaining how to complete their recall. Intake24 is based on the multiple pass method, which guides participants through the previous 24 hours, asking them to recall all food- and drink-consumption occasions. Participants received an invitation to complete their second recall the day after completing their first recall. This invitation was sent via email. The same procedure was followed for the third recall. Participants were able to unsubscribe from receiving messages from the project team at any time by clicking an 'unsubscribe' link in the email or responding 'STOP' to the text message.

For each eating occasion, participants were asked where they had bought or obtained most of the food for that occasion. Options included:

- Household grocery shopping (mine or someone else's),
- Eating out, takeaways (including Deliveroo, Just Eat, etc) and food "on the go" (including sandwich outlets and supermarket meal deals), and
- Don't know.

For each of the above three options, there were branching questions. The branching question for the 'Eating out, takeaways and food on the go' option was:

- Fast food/takeaway outlet, café, coffee or sandwich shop (including order from counter, drive thru, online, delivery apps, phone). Includes e.g. McDonalds, fish and chip shop etc, Costa, Pret, Greggs, Subway
- Sit down restaurant or pub e.g. Pizza Express, Wetherspoons
- Supermarket, convenience stores, corner shops
- School, nursery, college, work canteen

For each of these branching options (except 'School, nursery, college, work canteen'), participants could choose which specific food or retail outlet they purchased from as listed below. These options were chosen based on previously published [Worldpanel by Numerator](#) data for Scotland (1).

What was the name of the [Fast food/takeaway outlet, café, coffee or sandwich shop]?

1. McDonald's
2. KFC
3. Burger King
4. Domino's Pizza
5. Papa John's
6. Independent fish and chips shop
7. Independent kebab shop
8. Greggs
9. Subway

10. Pret
11. Costa Coffee
12. Caffè Nero
13. Starbucks
14. Department store cafés
15. Independent café
16. Other (specify)

What was the name of the [Sit down restaurant or pub]?

1. Pizza Hut
2. Frankie & Benny's
3. Nando's
4. Pizza Express
5. Wagamama
6. Wetherspoons
7. Brewers Fayre
8. Harvester
9. Toby Carvery
10. Beefeater Grill
11. Other (specify)

What was the name of the [Supermarket / convenience store/ corner shop]?

1. Tesco
2. Asda
3. Sainsbury's
4. Aldi
5. Morrisons
6. Co-op
7. Lidl
8. M&S Food
9. Waitrose
10. Other (specify)

## 2.6. Qualitative interviews

Participants agreeing to be contacted for the in-depth interview were contacted within one week of completing their dietary recalls to schedule the interview and provided with the Participant Information Sheet (**Annexe 4**). Interviews were conducted between 10th November and 5th December 2025. They completed a pre-task before the interview designed to capture a 'typical OOH purchase or visit'. Individuals purchased and consumed OOH food and non-alcoholic drinks as part of a naturally occurring occasion, defined as an OOH eating occasion that they would have undertaken as normal, independent of and without influence from the project. Where

possible, they captured photos and/or videos of the food and/or non-alcoholic drinks purchased, as well as the outlet. Following the purchase, individuals completed a short online survey on their experience. This captured three stages of the journey: before the purchase, during the purchase, and after the purchase. Participants then took part in a remote qualitative interview (**Annexe 5**), during which they discussed the experience in more depth. Interviews also explored individuals' broader habits and routines around OOH food. These interviews were conducted on Microsoft Teams. Interviews lasted, on average, 45 minutes (range 30-55 minutes).

## 2.7. Incentive

In Phase 1, participants who complete just the web questionnaire received £5. Those who also completed three 24-hour dietary recalls received an additional £15 (£20 total incentive). In Phase 2, participants who complete the in-depth interviews received £50. Consistent with other TM Panel surveys, the incentive was provided as points which participants could use to choose a voucher.

## 2.8. Ethics approval

All study documents were reviewed and received a favourable opinion from the Human Ethical Review Committee at the University of Edinburgh (protocol number: HERC\_2025\_079\_2).

## 2.9. Data cleaning

The following cleaning was performed on the dietary recall data:

- Participants who did not complete the required 3 recalls were removed from the analysis (n=48).
- Vitamin and mineral supplements and alcoholic drinks (largely beer, wine and spirits; 573 alcoholic drinks in total were reported by 303 participants) were excluded from the analysis and therefore all values reflect intakes from food and non-alcoholic drinks only.
- 432 reported food items (0.9% of the 47,628 items reported) could not be matched to a food composition code from the UK Nutrient Databank and were excluded from the analysis. Of the reported food items that could not be matched to a food composition code that had the food source reported (n=309), 254 (82%) were household grocery shopping and 55 (18%) were OOH.
- Recalls completed in <2 minutes, with <5 items or energy intake <400 kcal or >4,000 kcal were evaluated and where deemed improbable, the participants were excluded from the analysis (n=4).

- Under the variable “food source”, entries labelled “Other” (n=2,748) were manually reviewed and reclassified into either “Eating out” or “Household shopping” by one researcher. Within the “Eating out” category, additional cleaning was performed both within subcategories (e.g., standardising entries such as “Other: Greggs” to “Greggs” under the Fast Food subcategory) and across subcategories (e.g., reassigning “Other: McDonald” that had been incorrectly recorded under Sit-down Restaurant to “McDonald’s” under the Fast Food subcategory).
- Dairy-free items were removed from “Milk and milk products” and assigned a new category of “Dairy-free”.

Each food and drink product in Intake24 is linked to a food composition code from the UK Nutrient Databank which provides the nutrient values associated with that food. UK Nutrient Databank extract version 3 (unpublished) underpins the version of Intake24 used for this study.

To improve the accuracy of nutrient information for OOH food, we obtained nutritional information from publicly available information via online menus. We analysed a total of 6,562 food items reported by participants in Intake24 as sourced from OOH across three outlet categories: (1) fast food/takeaway, (2) supermarkets, and (3) sit-down restaurants or pubs. Within the fast food/takeaway category, the most common sources were independent takeaways (31% of food items sourced from the fast food/takeaway category), followed by others such as Chinese takeaways (19%), Greggs (13%), and McDonald’s (11%). For supermarkets, Tesco was the most frequently reported source (34% of food items sourced from supermarkets), followed by Sainsbury’s (12%), and other supermarkets or corner shops (11%). Among meals sourced from sit-down restaurants or pubs, 87% were classified as “other” and most of these were independent outlets or non-specific outlets such as “hotel” or “golf club”.

If 5% or more of all food items sourced from OOH outlets were sourced from a particular OOH outlet, we obtained nutritional information from their website. A total of 6,562 items were sourced from OOH outlets, so this threshold corresponded to 328 food items. For example, 427 reported food items were purchased from McDonald’s (6.5% of all OOH food items) and so we obtained nutritional information from the McDonald’s website. Based on this threshold, nutritional data were extracted for Greggs, McDonald’s, and Tesco. As the majority of sit-down restaurant meals were from independent outlets, nutritional information could not be reliably obtained for this category. At Greggs, 257 unique menu items were reported as consumed. Nutritional information was identified and extracted for 121 of these items after removing duplicate entries and non-Greggs items (e.g., water or soft drinks). Where item descriptions were incomplete (e.g., soup without further detail), assumptions were made (e.g., soup was assumed to be Tomato soup and Chicken salad roll was assumed to be a Roast Chicken Salad Roll). At McDonald’s, 372 unique menu items were reported as consumed. Nutritional information was identified and extracted for

169 items after removing duplicate entries and non-McDonald's items (e.g., soft drinks or juices). Assumptions were similarly applied where item descriptions were incomplete (e.g., "Quarter pounder no cheese" was assumed to be *McDonald's quarter pounder*). At Tesco, 232 unique items were reported. Nutritional information was identified and extracted for 45 of these items after removing duplicates and non-Tesco items (e.g., biscuits or milk). Assumptions were similarly applied where item descriptions were incomplete (e.g., "Sushi, prawn" was assumed to be Tesco Spicy Prawn Dragon Roll).

Nutritional data for Greggs and Tesco were available per 100 g. These values were adjusted to reflect individual consumption by multiplying the per-100 g nutrient values by the reported portion size divided by 100. For McDonald's, nutritional information was provided per menu item rather than per 100 g. For most items (e.g., burgers and wraps), a standard portion was assumed (nutrition information for one Big Mac was assumed Big Mac in a meal). However, for other items such as chicken nuggets, fries, hash browns, and chicken selects, reported portion weights were used to select the most appropriate portion size from the McDonald's website. For example, nutritional information on the McDonald's website is provided for 6, 9, and 20 piece portions and therefore a reported intake of 72 g was assumed to correspond to 6 nuggets, while 180 g was assumed to correspond to 9 nuggets.

## 2.10. Conversion factors for energy and nutrients

Conversion factors for grams of macronutrients to calories and sodium to salt are presented in **Table 1**.

**Table 1.** Conversion factors used for energy and nutrients.

<b>Nutrient</b>	<b>Conversion Factor</b>
Total carbohydrate	3.75 kcal per gram
Free sugars	3.75 kcal per gram
Total fat	9 kcal per gram
Saturated fat	9 kcal per gram
Trans fat	9 kcal per gram
Protein	4 kcal per gram
Sodium	2.498 gram salt per gram sodium

## 2.11. Statistical analysis

Statistical analysis was conducted using R and is largely descriptive (i.e., means, SDs, percentages, etc.). All tables are presented according to frequency of OOH consumption. Differences by OOH consumption frequency were tested using Kruskal-Wallis rank sum tests for continuous variables and Pearson's Chi-squared tests for

categorical variables. Multivariable linear regression was used to determine if energy and nutrient intake differed by frequency of OOH consumption after adjusting for sex. Differences in nutrient intake were further adjusted for energy intake.

All R script files are available on GitHub: <https://github.com/Runions2/Out-of-Home/>.

For qualitative data analysis, interview recordings were uploaded to [Coloop](#) (Genie Technology, Limited, London, UK), a generative AI-assisted analysis tool, which was used to generate verbatim transcripts. A data-merger session involving three TMCK researchers was then conducted to identify similarities and differences in themes across interviews and participant types, resulting in the development of a consolidated set of key themes. Coloop was subsequently used to support thematic analysis across all interviews, improving the efficiency and consistency of the analytical process.

## Chapter 3. Characteristics of participants

The sample comprised 1,012 respondents, with a mean age of 42 years (SD 14, median 39 years), ranging from 16 to 79 years (**Table 2**). This is comparable to the [mid-2024 population estimates](#) of adults living in Scotland which reported the median age of the population in Scotland was 43 years (5).

Slightly more than half of respondents were female (58%). This is higher than the [mid-2024 population estimates](#) (51% female) (6).

The majority of respondents identified as white (94%). This proportion is comparable to the [2022 Census](#), which found that 92% of people across all age groups in Scotland identified as White<sup>4</sup> (7).

Most respondents were married (62%) and lived in households with two adults (57%), and 35% reported having dependent children. The [2022 Census](#) found that single-person households were the most common household type, followed by two person households, whereas the pattern was reversed in this sample with two-person households being more common than single-person households (8). This is further reflected in the percentage with dependent children, which was higher in the sample (35%) as compared to the 2022 Census (24%).

In terms of employment, 60% of respondents were employed full time, and among those reporting currently working (full time, part time or self-employed), 34% reported working from home. This is similar to the [2022 Census](#) which found that almost a third (32%) of workers worked from home in 2022 (9).

The sample was largely urban, with 87% living in urban areas and 13% in rural areas. This proportion is higher than that reported by the [Scottish Government](#), which states that 83% of people reside in urban areas (10).

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<sup>4</sup> Including Scottish White, Other British White, and other ethnic groups that were in the White category on the census form including Irish, Polish, Gypsy/Traveller, Roma, Showman/Show woman, and Other White.

**Table 2.** Characteristics of participants who completed the web questionnaire and three 24-hour dietary recalls (n=1,012).

<b>Characteristic</b>	<b>Value</b>
<b>Age, years</b>	42 (14) [16 – 79]
<b>Age group</b>	
16-34y	40% (408)
35-54y	39% (398)
55+y	20% (206)
<b>Sex</b>	
Female	58% (584)
Male	42% (427)
Prefer not to say	<0.1% (1)
<b>Ethnicity</b>	
White	94% (951)
Asian or Asian British	2.8% (28)
Mixed or multiple ethnic groups	1.5% (15)
Black, Black British, Caribbean or African	1.0% (10)
Other	0.7% (7)
Prefer not to say	<0.1% (1)
<b>Marital status</b>	
Married/civil partnership/living as married	61% (620)
Single	31% (311)
Divorced/dissolved civil partnership/separated	6.2% (63)
Widowed/surviving civil partner	1.8% (18)
<b>Number of adults in household</b>	
1	23% (233)
2	57% (581)
3 or more	20% (198)
<b>Number of children in household</b>	
None	65% (655)
1	19% (196)
2	14% (138)
3 or more	2.3% (23)
<b>Employment status</b>	
Employed full time	60% (603)
Employed part time	11% (112)
Self employed	6.4% (65)
Permanently retired from work	8.8% (89)
Permanently sick or disabled	2.4% (24)
Looking after the home or family	4.9% (50)
At school/ In further education / Higher education	4.0% (40)
Other	5.2% (53)
<b>Work location</b>	
Out of home (e.g., office)	66% (468)
At home	34% (241)
<b>Scottish Index of Multiple Deprivation quintile</b>	
1st (Most Deprived)	17% (172)
2nd	19% (192)
3rd	19% (194)

4th	20% (204)
5th (Least Deprived)	24% (239)
Unknown	1.5% (15)
<b>Urban / Rural</b>	
Urban Area	87% (881)
Rural Area	13% (127)
Unknown	4

Values are percentage (n) or mean (SD) [range].

The qualitative sample included 19 high, 11 moderate, and 5 low OOH consumers (**Table 3**). Participants were drawn from across age groups and SIMD quintiles. A majority of participants were males (60% or higher) across all three groups.

**Table 3.** Characteristics of participants who completed the in-depth interview (n=35).

Characteristic	Frequency of out of home food consumption*		
	High (n=19)	Moderate (n=11)	Low (n=5)
<b>Age group</b>			
16-34y	37% (7)	36% (4)	20% (1)
35-54y	26% (5)	54% (6)	40% (2)
55+y	37% (7)	9% (1)	40% (2)
<b>Sex</b>			
Female	21% (4)	18% (2)	40% (2)
Male	79% (15)	82% (9)	60% (3)
<b>Scottish Index of Multiple Deprivation quintile</b>			
1st (Most Deprived)	16% (3)	18% (2)	20% (1)
2nd	21% (4)	27% (3)	0% (0)
3rd	26% (5)	18% (2)	40% (2)
4th	16% (3)	9% (1)	20% (1)
5th (Least Deprived)	26% (4)	27% (3)	20% (1)

Values are percentage (n).

\* See **Section 4.2.** for details on classification of high, moderate, and low users

## Chapter 4. Frequency of out of home consumption

### 4.1. Overall

'Supermarkets/ convenience stores/ corner shops' were the most frequently used OOH outlets, with 40% of respondents sourcing food "on the go" from these outlets 2-3 times in the past week and 23% reporting consumption once in the past week (**Table 4**). This was followed by 'Cafés or coffee shops' which 25% of respondents reported using 2-3 times per week and 36% reported using once per week.

42% and 40% of respondents reported visiting 'Quick-service restaurant/ takeaways' and 'Bakeries or sandwich shops' in the last week respectively. While more than a third of respondents did not purchase from these outlet types in the past week (35% for 'Quick-service restaurants/ takeaways' and 42% for 'Bakeries or sandwich shops').

More than half of respondents reported not sourcing food from 'Full-service restaurants' (54%), 'Petrol stations, cinemas or workplace canteen' (67%), 'Pubs or bars' (69%), or 'Vending machines' (87%) in the past week and most of those who did access food at these types of outlets did so only once in the past week.

Very few respondents (less than 4%) reported frequent consumption (five or more visits in the past week) of any particular outlet type, while only 22 participants (2%) reported not using any OOH source in the past week.

**Table 4.** Frequency of out of home consumption in the past week across different sources among adults 16+ years living in Scotland, 2025 (n=1,012).

<b>OOH Outlet</b>	<b>Value</b>
<b>Supermarkets/ convenience stores/ corner shops</b>	
Did not purchase here this week	22% (224)
1 time	23% (236)
2-3 times	40% (403)
4-5 times	11% (115)
6-7 times	2% (22)
More than 7 times	1% (12)
<b>Café or coffee shop</b>	
Did not purchase here this week	32% (319)
1 time	36% (367)
2-3 times	25% (258)
4-5 times	5% (55)
6-7 times	1% (8)
More than 7 times	0% (5)
<b>Quick service restaurants/ takeaways</b>	
Did not purchase here this week	35% (353)
1 time	42% (424)
2-3 times	20% (204)
4-5 times	3% (26)
6-7 times	0% (3)
More than 7 times	0% (2)
<b>Bakery or sandwich shop</b>	
Did not purchase here this week	42% (425)
1 time	40% (409)
2-3 times	15% (147)
4-5 times	2% (25)
6-7 times	1% (6)
More than 7 times	0% (0)
<b>Full-service restaurants</b>	
Did not purchase here this week	54% (544)
1 time	36% (367)
2-3 times	8% (86)

4-5 times	1% (13)
6-7 times	0% (1)
More than 7 times	0% (1)

**Petrol stations, cinemas or workplace canteen**

Did not purchase here this week	67% (677)
1 time	22% (225)
2-3 times	10% (98)
4-5 times	1% (10)
6-7 times	0% (0)
More than 7 times	0% (2)

**Pub or bar**

Did not purchase here this week	69% (697)
1 time	24% (246)
2-3 times	6% (59)
4-5 times	0% (5)
6-7 times	0% (3)
More than 7 times	0% (2)

**Vending machine**

Did not purchase here this week	87% (885)
1 time	8% (78)
2-3 times	4% (41)
4-5 times	1% (7)
6-7 times	0% (1)
More than 7 times	0% (0)

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Values are percentage (n).

#### 4.2. Defining low, moderate, and high out of home use

In order to classify participants as low, moderate, or high OOH consumers, we assigned a value (**Table 5**) for their frequency of using each of the following eight outlets in the past week:

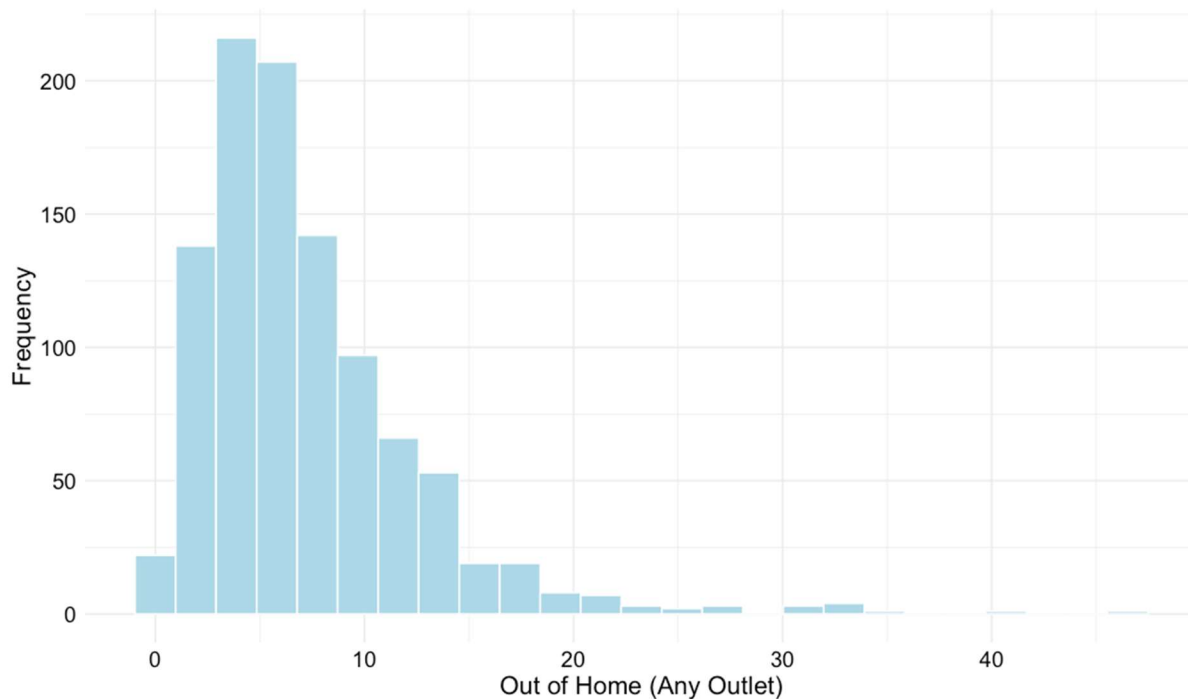
1. Food “on the go” from supermarkets/ convenience stores/ corner shops
2. Cafés or coffee shops
3. Quick-service restaurants/ takeaways
4. Bakeries or sandwich shops
5. Full-service restaurants
6. Petrol stations, cinemas or workplace canteens
7. Pubs or bars
8. Vending machines

**Table 5.** Numerical value assigned to reported frequency of out of home consumption in the past week.

<b>Survey Response Frequency Level</b>	<b>Numerical Value</b>
Did not purchase here this week	0
1 time	1
2-3 times	2.5
4-5 times	4.5
6-7 times	6.5
More than 7 times	8

For example, if a participant visited each of the eight outlets once in the past week, their overall visits would sum to 8 total visits in one week. If a participant reported visiting a ‘Full-service restaurant’ in the past week ‘2-3 times’ and visiting ‘Pubs or bars’ ‘1 time’ and did not use any other outlets, their total OOH visits would sum to 3.5.

**Figure 1** shows the distribution of the number of OOH visits in the past week among participants. The x-axis represents the number of visits per week, and the y-axis represents the frequency (number of participants) within each visit category. Overall, the mean (SD) number of OOH visits (any outlet type) in the past week was 7.1 (5.3) and the median was 6. Reported visits ranged from 0 to 46 times per week.



**Figure 1.** Distribution of number of out of home visits in the past week (total any outlet type) among adults 16+ years living in Scotland, 2025 (n=1,012).

We employed a data-driven definition of low, moderate, and high OOH consumption as there is no widely used or agreed definition of low, moderate, or high OOH consumption in the literature. Data were from the web questionnaire completed by participants prior to completing their dietary recalls. Participants were classified as 'Low' OOH consumers if they had visited any of these OOH sources four times or fewer in the last week (n=387). This included the 22 participants who reported not using any OOH source in the past week. Participants were classified as 'Moderate' consumers if they had visited more than four and up to seven times per week (n=318), and 'High' consumers if they had visited more than seven times per week (n=311).

For qualitative interviews (n=35), different cut-offs were used to maximise contrast between groups. We defined 'High' as consuming OOH food ten or more times in the past week. 'Moderate' was defined as consuming OOH food 5-9 times in the past week and 'Low' was defined as consuming OOH food fewer than five times in the past week.

#### 4.3. Frequency of out of home use

‘Supermarkets/ convenience stores/ corner shops’ and ‘Cafés or coffee shops’ were the most commonly used outlets across all groups, while ‘Vending machines’ and ‘Full-service restaurants’ were the least used (**Table 6**). High OOH consumers reported frequent consumption ( $\geq 2$  visits in the past week) across most outlet types, particularly ‘Supermarkets/ convenience stores/ corner shops’ (84%), ‘Cafés or coffee shops’ (60%), ‘Quick-service restaurants/ takeaways’ (47%), and ‘Bakeries or sandwich shops’ (42%). Moderate OOH consumers showed frequent consumption ( $\geq 2$  visits in the past week) at ‘Supermarkets/ convenience stores/ corner shops’ (62%). In contrast, a majority of low OOH consumers reported no purchases across all outlet types, with 41% visiting a ‘Café or coffee shop’ once in the last week and 36% visiting ‘Supermarkets/ convenience stores/ corner shops’ and ‘Quick service restaurants/takeaways’ once in the last week.

**Table 6.** Frequency of out of home (OOH) outlet type used by high, moderate, and low OOH consumers among adults 16+ years living in Scotland, 2025 (n=1,012).

OOH Outlet	Frequency of overall OOH consumption in the past week		
	High (n=378)	Moderate (n=330)	Low (n=304)
<b>Supermarkets/ convenience stores/ corner shops</b>			
Did not purchase here this week	5% (18)	12% (41)	54% (165)
1 time	11% (42)	25% (84)	36% (110)
2 or more times	84% (318)	62% (205)	10% (29)
<b>Café or coffee shop</b>			
Did not purchase here this week	13% (51)	32% (106)	53% (162)
1 time	27% (101)	43% (141)	41% (125)
2 or more times	60% (226)	25% (83)	6% (17)
<b>Quick service restaurants/ takeaways</b>			
Did not purchase here this week	14% (52)	34% (111)	63% (190)
1 time	39% (147)	51% (169)	36% (108)
2 or more times	47% (179)	15% (50)	2% (6)
<b>Bakery or sandwich shop</b>			
Did not purchase here this week	16% (62)	42% (139)	73% (224)
1 time	42% (157)	52% (172)	26% (80)
2 or more times	42% (159)	6% (19)	0% (0)
<b>Full-service restaurants</b>			

Did not purchase here this week	30% (114)	58% (190)	79% (240)
1 time	48% (183)	37% (122)	20% (62)
2 or more times	21% (81)	5% (18)	1% (2)
<b>Petrol stations, cinemas or workplace canteen</b>			
Did not purchase here this week	41% (153)	77% (253)	89% (271)
1 time	34% (128)	20% (66)	10% (31)
2 or more times	26% (97)	3% (11)	1% (2)
<b>Pub or bar</b>			
Did not purchase here this week	49% (185)	76% (252)	86% (260)
1 time	37% (138)	21% (68)	13% (40)
2 or more times	15% (55)	3% (10)	1% (4)
<b>Vending machine</b>			
Did not purchase here this week	74% (278)	95% (313)	97% (294)
1 time	15% (55)	4% (14)	3% (9)
2 or more times	12% (45)	1% (3)	0% (1)

Values are percentage (n).

#### 4.4. Comparison to the Scottish Health Survey 2024

To better inform interpretation of findings from this sample as compared to a nationally representative sample, we compared the frequency of OOH consumption based on 24-hour dietary recall data collected using Intake24 in our sample and the [Scottish Health Survey \(SHeS\) 2024](#). Results are not directly comparable because SHeS only collected 2 dietary recalls whereas this survey collected 3, and therefore had greater opportunity to ‘pick up’ an OOH consumption occasion.

Of the 2,200 SHeS 2024 participants who completed at least one dietary recall using Intake24, 82% (n=1,796) completed 2 and were included in this comparison. If one assumes that had SHeS 2024 collected an additional day of dietary recall, thus capturing more OOH consumers, results of the comparison suggest that the OOH survey sample presented in this report is not necessarily a higher OOH consuming sample than the general adult population living in Scotland (**Table 7**). The OOH survey sample presented in this report had 26% with no OOH consumption across 3 days of recall versus 34% of the SHeS 2024 sample having no OOH consumption across 2 days of recall.

**Table 7.** Frequency of out of home (OOH) consumption among adults 16+ years living in Scotland based on 24-hour dietary recalls in the Scottish Health Survey (SHeS) 2024 and a national survey of OOH consumption conducted in 2025.

<b>Number of days OOH consumed</b>	<b>SHeS 2024*</b> (n=1,796)	<b>OOH 2025</b> (n=1,012)
0	34% (622)	26% (260)
1	30% (497)	32% (322)
2	35% (677)	26% (268)
3	N/A	16% (162)

Values are percentage (n).

\* Values for SHeS take into account survey design (e.g., psu, strata and Intake24 sampling weights).

We also compared the classification of participants as low, moderate, or high OOH consumers based on Intake24 (e.g., 3 days of dietary recalls) to classification based on the 1-week food frequency questionnaire in the web questionnaire. Both approaches used data-driven tertiles to classify participants as low, moderate, or high OOH consumers. Results indicated that 45% of participants had perfect concordance (e.g., low OOH consumer based on both methods, moderate OOH consumer based on both, or high OOH consumer based on both). A further 42% had moderate concordance (e.g., low OOH consumer on one versus moderate on the other, or moderate OOH consumer on one versus high on the other). The remaining 13% had low concordance, meaning that they were classified as a low OOH consumer on one versus high on the other. Thus, the approach to classifying participants is generally consistent between the 1-week food frequency questionnaire and Intake24 dietary recalls.

#### 4.5. Use of food delivery apps

Food delivery apps were used infrequently, with 66% reporting no use during the past week and 25% reporting a single order (**Table 8**). Among respondents who used an app for food delivery, the majority reported using apps for ready-to-eat food (78%), compared with 22% who used them for household shopping.

**Table 8.** Frequency of app use to order food in the past week among adults 16+ years living in Scotland, 2025 (n=1,012).

<b>App Use</b>	<b>Value</b>
<b>An app such as Uber Eats, Deliveroo, Just Eat or other</b>	
Did not purchase here this week	66% (663)
1 time	25% (253)
2 or more times	9% (96)
<b>App used for household shopping or ready-to-eat</b>	
Household shopping	22% (76)
Ready-to-eat	78% (273)

Values are percentage (n).

Most participants did not use an app in the past week, however, among high OOH consumers, 18% reported purchasing food from apps two or more times in the past week (**Table 9**). Across all OOH frequency groups, apps were used primarily for ready-to-eat food rather than household shopping, accounting for around three-quarters or more of app use.

**Table 9.** Frequency of app use to order food by high, moderate, and low levels of out of home consumption among adults 16+ years living in Scotland, 2025 (n=1,012).

<b>App Use</b>	<b>Frequency of overall OOH consumption in the past week</b>		
	<b>High (n=378)</b>	<b>Moderate (n=330)</b>	<b>Low (n=304)</b>
<b>An app such as Uber Eats, Deliveroo, Just Eat or other</b>			
Did not purchase here this week	49% (187)	68% (225)	83% (251)
1 time	32% (121)	25% (81)	17% (51)
2 or more times	19% (70)	7% (24)	1% (2)
<b>App used for household shopping or ready-to-eat</b>			
Household shopping	25% (48)	21% (22)	11% (6)
Ready-to-eat	75% (143)	79% (83)	89% (47)

Values are percentage (n).

## Chapter 5. Demographic characteristics by frequency of out of home consumption

With regards to differences in sociodemographic characteristics by OOH consumption frequency (**Table 10**), high OOH consumers were:

- Younger: 46% of high OOH consumers were 16 - 35 years, compared with 38% of moderate and 35% of low OOH consumers.
- More likely to be male (49% male) compared to moderate (40%) and low (35%) OOH consumers.
- More likely to be single (35%) compared with moderate (33%) and low (23%) consumers.
- More likely to be employed full time (65%) compared with moderate (58%) and low (54%) consumers.
- Slightly more likely to live in urban areas (88%) compared with low (84%) consumers.

There was not a significant difference ( $p>0.05$ ) between OOH consumption groups with regards to ethnicity, number of adults or children in the household, work location (at home or out of home), or SIMD.

**Table 10.** Characteristics of participants who completed the web questionnaire and three 24-hour dietary recalls stratified by high, moderate, and low levels of overall out of home consumption among adults 16+ years living in Scotland, 2025 (n=1,012).

	Frequency of overall OOH consumption in the past week			p-value†
	High (n=378)	Moderate (n=330)	Low (n=304)	
<b>Age, years</b>	39(12) [18-79]	43(14) [16- 78]	44(14) [16- 78]	<0.001
<b>Age group</b>				
16-34y	46% (175)	38% (125)	36% (108)	<0.001
35-54y	41% (156)	39% (129)	37% (113)	
55+y	12% (47)	23% (76)	28% (83)	
<b>Sex*</b>				
Female	51% (191)	60% (196)	65% (197)	<0.001
Male	49% (187)	40% (133)	35% (107)	
Prefer not to say	0% (0)	0% (1)	0% (0)	
<b>Ethnicity*</b>				
White	92% (349)	96% (316)	94% (286)	0.4
Asian or Asian British	4% (16)	2% (7)	2% (5)	
Mixed or multiple ethnic groups	1% (4)	1% (4)	2% (7)	
Black, Black British, Caribbean or African	1% (5)	0.6% (2)	1% (3)	
Other	0.8% (3)	0.3% (1)	1% (3)	
Prefer not to say	0.3% (1)	0% (0)	0% (0)	
<b>Marital status</b>				
Married/civil partnership/living as married	59% (223)	57% (187)	69% (210)	0.009
Single	35% (132)	33% (109)	23% (70)	
Divorced/dissolved civil partnership/separated	5% (18)	8% (27)	6% (18)	
Widowed/surviving civil partner	1% (5)	2% (7)	2% (6)	
<b>Number of adults in household</b>				0.3
1	23% (87)	26% (86)	20% (60)	
2	56% (212)	55% (181)	62% (188)	
3 or more	21% (79)	19% (63)	18% (56)	
<b>Number of children in household</b>				0.051
None	60% (226)	68% (223)	68% (206)	
1	20% (75)	20% (66)	18% (55)	
2	18% (68)	11% (36)	11% (34)	
3 or more	2% (9)	1% (5)	3% (9)	
<b>Employment status*</b>				<0.001
Employed full time	65% (247)	58% (190)	55% (166)	
Employed part time	10% (37)	10% (34)	13% (41)	
Self employed	6% (24)	5% (16)	8% (25)	
Permanently retired from work	4% (15)	12% (41)	11% (33)	
Looking after the home or family	5% (18)	5% (16)	5% (16)	
At school/ In further / Higher education	6% (22)	3% (11)	2% (7)	
Other	4% (15)	7% (22)	5% (16)	

<b>Work location</b>				0.8
Out of home (e.g., office)	67% (188)	64% (143)	67% (135)	
At home	33% (94)	36% (80)	33% (67)	
<b>Scottish Index of Multiple Deprivation quintile</b>				0.4
1st (Most Deprived)	18% (69)	17% (55)	16% (47)	
2nd	20% (73)	20% (65)	18% (53)	
3rd	20% (74)	16% (52)	22% (67)	
4th	21% (79)	22% (72)	18% (53)	
5th (Least Deprived)	21% (78)	25% (80)	27% (81)	
Unknown	1% (5)	2% (6)	1% (4)	
<b>Urban / Rural*</b>				0.04
Large Areas	88% (332)	90% (296)	83% (253)	
Rural Areas	12% (44)	10% (33)	17% (50)	
Unknown	2	1	1	

Values are percentage (n) or mean (SD) [range].

\*Categories with n<5 were combined for statistical testing. Sex: female versus male (prefer not to say omitted), Ethnicity: white versus non-white, †Kruskal-Wallis rank sum test, Pearson's Chi-squared test.

## Chapter 6. Contribution of out of home food to overall diet

### 6.1. Overall

Household grocery shopping accounted for the vast majority of energy and macronutrient intake, contributing nearly 80% across energy, carbohydrates, protein, and fat (**Table 11**). OOH (total across all outlet types) contributed to 21% of energy and about 20-22% of most macronutrients. Fast food/takeaway outlets, cafés, coffee or sandwich shops were the largest OOH contributors (about 13-14% across energy and macronutrients), followed by sit-down restaurants or pubs (about 4%).

Whilst food “on the go” from supermarkets, convenience and corner shops were the most frequently reported OOH outlets visited (see **Chapter 4**), they contributed a smaller share (about 3%) to calories and macronutrients than Fast food/takeaway outlets, cafés, coffee or sandwich shops (about 13-14%), and sit-down restaurants or pubs (about 4%) (**Table 11**). The likely reason for this is that most items in this category are reported as lunch or snack items (50% and 30% of items respectively). Of items reported as lunch, 17% (79 items) were sandwiches, 19% (86 items) were soft drinks, and 9% (41 items) were crisps and savoury snacks. Of items reported as snacks, 16% (43 items) were soft drinks, 13% (35 items) were chocolate confectionery, 12% (34 items) were tea, coffee, and water, and 9% (25 items) were crisps and savoury snacks.

**Table 11.** Mean percentage of energy and macronutrients sourced from household grocery shopping versus out of home outlets among adults 16+ years living in Scotland, 2025 (n=1,012).

<b>Food Source</b>	<b>Energy</b>	<b>Carbohydrates</b>	<b>Protein</b>	<b>Fat</b>
Household grocery shopping	78.5%	79.2%	78.3%	77.8%
Out of home (total)	21.0%	20.5%	21.4%	21.8%
Unknown	0.4%	0.5%	0.3%	0.4%
Fast food/takeaway outlet, café, coffee or sandwich shop	13.2%	12.8%	13.3%	13.8%
Sit down restaurant or pub	4.0%	3.7%	4.5%	4.1%
Supermarket, convenience stores, corner shops (food “on the go”)	2.9%	3.0%	2.7%	3.0%
Work	0.9%	1.0%	0.9%	0.9%

Likewise, for saturated fat, fibre, free sugars, and salt, a majority came from household grocery shopping rather than OOH outlets (**Table 12**).

**Table 12.** Mean percentage of saturated fat, fibre, free sugars, and salt sourced from household grocery shopping versus out of home outlets among adults 16+ years living in Scotland, 2025 (n=1,012).

<b>Food Source</b>	<b>Saturated Fat</b>	<b>Fibre</b>	<b>Free sugars</b>	<b>Salt*</b>
Household grocery shopping	78.8%	79.9%	79.4%	76.8%
Out of home (total)	20.9%	19.8%	20.2%	22.9%
Unknown	0.3%	0.4%	0.5%	0.3%
Fast food/takeaway outlet, café, coffee or sandwich shop	13.2%	12.2%	12.8%	14.4%
Sit down restaurant or pub	4.0%	3.8%	3.2%	4.3%
Supermarket, convenience stores, corner shops (food “on the go”)	2.8%	2.8%	3.2%	3.2%
Work	0.9%	1.0%	1.0%	1.0%

\* Salt values do not take account of salt added during cooking and salt added at the table by participants.

When the 22 participants who did not consume OOH food or drink in the previous week were excluded, results were consistent, e.g., household grocery shopping accounted for 78.1% of calories when these participants were excluded versus 78.5% when they were included (**Annexe 6**).

## 6.2. By frequency of out of home consumption

High OOH consumers obtained nearly 30% of their energy intake from OOH sources, compared to 19% among moderate and 13% among low consumers (**Table 13**). Similar trends across high versus moderate and low OOH consumers were observed for all other nutrients.

**Table 13.** Mean percentage of energy and nutrients sourced from out of home outlets by high, moderate, and low levels of out of home consumption, among adults 16+ years living in Scotland, 2025 (n=1,012).

Nutrient	Frequency of overall OOH consumption in the past week			p- value <sup>1</sup>
	High (n=378)	Moderate (n=330)	Low (n=304)	
Energy	28.9%	19.3%	13.4%	<0.001
Carbohydrates	28.0%	18.5%	13.0%	<0.001
Protein	29.3%	19.5%	13.5%	<0.001
Fat	29.7%	20.2%	13.8%	<0.001
Saturated Fat	28.8%	19.1%	13.0%	<0.001
Fibre	27.3%	18.0%	12.3%	<0.001
Free Sugars	27.7%	18.4%	12.6%	<0.001
Salt	31.2%	20.8%	14.8%	<0.001

<sup>1</sup> Kruskal-Wallis rank sum test

High OOH consumers had the highest mean energy intake (1747 kcals), compared with moderate (1591 kcals) and low (1513 kcals) OOH consumers (**Table 14**). This was consistent after adjustment for sex. After adjusting for sex, compared with high OOH consumers, moderate consumers consumed 129 fewer calories per day on average ( $p<0.001$ ) and low consumers consumed 191 fewer calories per day on average ( $p<0.001$ ).

A similar pattern was observed for carbohydrates, protein, fat, saturated fat, free sugars, and salt, with intakes highest in high OOH consumers and lowest in low OOH consumers. After adjusting for sex and energy intake, results were attenuated for differences in carbohydrates, protein, fat, and saturated fat. However, even after adjustment for sex and energy intake, fibre intakes remained significantly higher and free sugar intakes significantly lower in low and medium OOH consumers versus high OOH consumers. Likewise, salt intakes were significantly lower in low OOH consumers versus high OOH consumers after adjustment for sex and energy intake.

**Table 14.** Mean (SD) total energy and nutrient intakes by high, moderate, and low levels of out of home consumption among adults 16+ years living in Scotland, 2025 (n=1,012).

Nutrient	Overall (n=1,012)	Frequency of overall OOH consumption in the past week			p- value <sup>1</sup>
		High (n=378)	Moderate (n=330)	Low (n=304)	
Energy (kcals)	1,625.8 (537)	1,746.7 (600)	1,590.7 (501)	1,513.6 (456)	<0.001
Carbohydrates (g)	198.5 (71)	215.3 (79)	192.1 (66)	184.6 (62)	<0.001
Protein (g)	74.0 (29)	78.5 (31)	72.6 (28)	69.9 (25)	0.001
Fat (g)	64.6 (26)	68.8 (28)	64.1 (24)	60.1 (24)	<0.001
Saturated Fat (g)	23.1 (11)	24.8 (11)	23.2 (10)	21.1 (10)	<0.001
Fibre (g)	16.2 (6)	16.1 (6)	15.8 (7)	16.6 (6)	0.2
Free Sugars (g)	40.4 (30)	47.3 (35)	37.7 (27)	34.8 (26)	<0.001
Salt (g)	4.9 (2)	5.3 (2)	4.8 (2)	4.4 (2)	<0.001

<sup>1</sup> Kruskal-Wallis rank sum test

### 6.3. Contribution of food groups to out of home food

**Table 15** presents the percentage contribution of each main food group to (a) overall total energy intake (all sources) and (b) OOH total energy intake (OOH sources only).

Food groups contributing 4% or more to overall energy intake included:

- Pasta, rice and other miscellaneous cereals including pizza (9.8%)
- Sandwiches (7.7%)
- Chicken and turkey dishes (6.6%)
- White bread (6.1%)
- Beef, veal and dishes (4.1%)

Together, these five food groups accounted for 34% of total energy intake.

The pattern for OOH energy intake differed, with food groups contributing 4% or more to OOH energy intake including:

- Sandwiches including rolls and wraps (13.6%)
- Pasta, rice and other miscellaneous cereals including pizza (10.6%)
- Chips, fried and roast potatoes and potato products (7.3%)
- Chicken and turkey dishes (7.0%)
- Buns, cakes, pastries and fruit pies (5.1%)
- Other milk and cream including milky coffees (5.1%)
- Meat pies and pastries including sausage rolls (4.2%)
- White bread (4.2%)

Together, these eight food groups accounted for 57% of OOH energy intake. A breakdown of top 5 foods contributing to each of these food groups is provided in **Annexe 7**.

Generally, 'Sandwiches including rolls and wraps', 'Chips, fried and roast potatoes and potato products', 'Meat pies and pastries including sausage rolls', and 'Other milk and cream including milky coffees' were more important contributors to OOH energy intake than overall energy intake from all sources (difference >2 percentage points). In contrast, 'High fibre breakfast cereals' and 'Fruit' were more important contributors to overall energy intake from all sources than OOH energy intake (difference >2 percentage points).

**Table 15.** Mean percentage of energy from food groups, from overall intake and out of home (OOH) outlets, among adults 16+ years living in Scotland, 2025 (n=1,012). Food groups highlighted in blue are those that are more important contributors to OOH energy intake than overall energy intake from all sources (difference >2 percentage points). Food groups highlighted in green are those that are more important contributors to overall energy intake from all sources than OOH energy intake (difference >2 percentage points).

<b>Food group</b>	<b>Total energy (%)</b>	<b>OOH energy (%)</b>
Pasta, rice and other miscellaneous cereals	9.8	10.6
Sandwiches	7.7	13.6
Chicken and turkey dishes	6.6	7.0
White bread	6.1	4.2
Beef, veal and dishes	4.1	2.8
Biscuits	3.9	2.3
Miscellaneous	3.9	3.4
Vegetables (not raw)	3.7	2.9
Fruit	3.4	1.3
Chips, fried and roast potatoes and potato products	3.3	7.3
Buns, cakes, pastries and fruit pies	3.2	5.1
Crisps and savoury snacks	2.9	2.6
Chocolate confectionery	2.8	2.1
High fibre breakfast cereals	2.7	0.4
Eggs and egg dishes	2.6	1.0
Other milk and cream	2.5	5.1
Semi-skimmed milk	2.0	0.7
Cheese	2.0	1.6
Meat pies and pastries	1.9	4.2
Yogurt, fromage frais and other dairy desserts	1.8	0.6
Other potatoes, potato salads and dishes	1.7	0.6
Soft drinks, not diet	1.7	2.9
Wholemeal bread	1.5	0.4
Butter	1.3	0.6
Coated chicken and turkey manufactured	1.3	2.4
Other breakfast cereals	1.2	0.0
Sausages	1.2	1.2
Nuts and seeds	1.2	0.3
Other white fish, shellfish and fish dishes	1.1	1.0
Sugars, preserves and sweet spreads	1.1	0.7
Burgers and kebabs	1.0	2.9
White fish coated or fried	0.8	1.2
Oily fish	0.7	0.6
Whole milk	0.6	0.1
Pork and dishes	0.6	0.4
Salad and other raw vegetables	0.6	0.4
Fruit juice	0.6	0.5
Puddings	0.5	0.4
Bacon and ham	0.5	0.5
Other meat and meat products	0.5	0.9

Sugar confectionery	0.5	0.3
Tea, coffee and water	0.5	0.6
Brown, granary and wheatgerm bread	0.5	0.3
Ice cream	0.4	0.6
Reduced fat spread	0.3	0.1
Other milk and cream DF	0.3	0.2
Skimmed milk	0.2	0.1
Lamb and dishes	0.2	0.3
Soft drinks, diet	0.2	0.6
Other breads	0.1	0.0
1% Milk	0.1	0.0

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Food groups contributing <0.1% of energy not shown, including: Low fat spread, Liver, products and dishes, Commercial toddlers foods and drinks, and Yogurt, fromage frais and other dairy desserts DF.

## Chapter 7. Motivations for out of home consumption

Motivations for OOH consumption were analysed in both phases of the study. In Phase 1, the web questionnaire included rating different motivators on a scale from 'Not important' to 'Very or extremely important'. In Phase 2, the pre-task involved questions regarding participant's most recent, naturally occurring OOH experience. The qualitative interviews delved more deeply into motivations and behaviours around OOH consumption.

### 7.1. Web questionnaire

Across all OOH consumer levels, taste emerged as the most prominent motivation, with 77% overall reporting it as 'Very or extremely important', and little variation across low (78%), moderate (77%), and high (77%) OOH consumers.

Treat-related motivations were also highly rated across all groups, with over half of respondents overall (53%) considering this 'Very or extremely important', and relatively modest variation by OOH usage level. Socialising was also considered 'Very or extremely important' by nearly half of low and moderate (both 48%) as well as high (43%) consumers. Value for money was considered 'Very or extremely important' by nearly half of both low (43%) and high (48%) consumers. However, 'Less expensive than eating in' was the least frequently rated as 'Very or extremely important' overall (15%), and the proportion was similar across OOH frequency groups.

Motivations related to convenience, including time saving, being on the move, easy to come by, and not having to cook, were more important for high OOH consumers than moderate and low consumers. For example, the proportion rating on-the-move as 'Very or extremely important' was 15% in low consumers and 31% in high consumers.

Variety followed a comparable pattern, with 38% of low consumers and 49% of high consumers rating it as 'Very or extremely important'.

In summary, taste was consistently the most important motivator for OOH consumption across all levels of OOH use, with being a treat, socialising and value for money also consistently important motivators. Whereas convenience and variety were especially important to high OOH consumers.

**Table 16.** Motivations for out of home consumption in the past week by high, moderate, and low levels of overall out of home consumption among adults 16+ years living in Scotland, 2025 (n=1,012).

Motivation	Overall N = 1,012	Frequency of overall OOH consumption in the past week			p-value <sup>1</sup>
		High N = 378	Medium N = 330	Low N = 304	
<b>Taste</b>					0.6
Not or slightly important	5.2%	6.1%	5.8%	3.5%	
Somewhat important	17.2%	16.4%	17.3%	18.0%	
Very or extremely important	77.6%	77.5%	77.0%	78.4%	
<b>Quick/ saves time</b>					<0.001
Not or slightly important	27.2%	20.6%	27.6%	35.7%	
Somewhat important	29.1%	28.0%	30.9%	28.3%	
Very or extremely important	43.7%	51.3%	41.5%	36.0%	
<b>Can eat on the move</b>					<0.001
Not or slightly important	50.2%	41.5%	50.9%	60.8%	
Somewhat important	27.1%	27.2%	29.7%	24.0%	
Very or extremely important	22.7%	31.2%	19.4%	15.2%	
<b>Easy to come by</b>					<0.001
Not or slightly important	24.6%	21.7%	23.9%	29.3%	
Somewhat important	33.9%	25.9%	39.4%	38.2%	
Very or extremely important	41.5%	52.4%	36.7%	32.5%	
<b>Variety</b>					0.002
Not or slightly important	21.8%	20.9%	19.1%	26.1%	
Somewhat important	35.5%	29.9%	42.1%	35.3%	
Very or extremely important	42.7%	49.2%	38.8%	38.5%	
<b>Don't have to cook</b>					0.2
Not or slightly important	30.7%	28.0%	29.7%	35.3%	
Somewhat important	27.3%	27.5%	29.7%	24.4%	
Very or extremely important	42.0%	44.4%	40.6%	40.3%	
<b>Treat</b>					0.4
Not or slightly important	17.2%	19.8%	14.5%	16.6%	
Somewhat important	29.4%	29.4%	30.0%	28.6%	
Very or extremely important	53.5%	50.8%	55.5%	54.8%	
<b>Socialising</b>					0.5
Not or slightly important	26.8%	29.6%	24.2%	26.1%	
Somewhat important	26.9%	27.2%	27.6%	25.8%	
Very or extremely important	46.2%	43.1%	48.2%	48.1%	
<b>Value for money</b>					0.2
Not or slightly important	23.5%	19.8%	24.2%	27.6%	
Somewhat important	31.2%	32.0%	32.1%	29.0%	
Very or extremely important	45.3%	48.1%	43.6%	43.5%	
<b>Less expensive than eating in</b>					0.3
Not or slightly important	60.4%	56.1%	62.4%	64.0%	
Somewhat important	24.9%	27.8%	23.9%	22.3%	
Very or extremely important	14.6%	16.1%	13.6%	13.8%	

<sup>1</sup> Pearson's Chi-squared test

## 7.2. Qualitative interviews

### 7.2.1. Pre-task

OOH eating occasions identified in the pre-task were informal, everyday social connections rather than highly social or large-scale events. Quick service restaurants and takeaways were the most commonly used outlets across the pre-task occasions (13 out of 35, 37%).

Most respondents purchased in person, usually on their own. When accompanied, it was most often by a partner, followed by friends, children, or colleagues. Reasons for buying in person included being out and about, social activities, enjoying the restaurant setting, browsing options, habit, personal interaction, and avoiding delivery fees.

A few individuals reported a lack of trust in delivery apps, highlighting concerns around food freshness, temperature, missing items and extra charges. One participant also described the use of apps as “lazy”.

The average cost of the OOH purchase was £25.10. Spend ranged from £3 (a McDonald’s McChicken Sandwich for one) to £125 (an Indian restaurant outing with family). Most participants (74%) felt the purchase offered good value for money.

### 7.2.2. Broad themes

Motivations to consume OOH food and drink could be segmented into three broad themes: (1) Convenience, (2) Enjoyment, and (3) Spending time together.

Convenience was experienced in several interconnected ways. It included “grab and go” options that were fast, familiar, and easy to access, such as picking up a meal deal or takeaway on the way home, grabbing a quick Chinese to eat in the van between jobs, or stopping at Burger King when stuck in traffic. It also meant a “cheap fill-up,” with affordable, filling, and good-value choices, like something cheap and quick for dinner while gaming or a low-cost meal after five-a-side football. Convenience further involved reduced effort and headspace, avoiding time- and effort-intensive tasks such as cooking, meal planning, shopping, and cleaning up, particularly after a long day at work, caring for children, or when it felt too late to cook from scratch. Finally, it reflected “buying back time,” with participants weighing the time spent preparing meals against what they could be doing instead, such as relaxing or reclaiming time for themselves, a motivation especially strong among busy families but also evident among pre-family participants favouring quick, low-effort options “on the go”.

*“Relief comes from not having to stop at a shop and not having to come home and do a whole task of cooking and cleaning” ~Moderate OOH consumer*

*“We just needed something quick and easy to eat for tea” ~Moderate OOH consumer*

*“I kind of factor in what I get paid an hour. So if I’m going to spend an hour cooking I’m thinking ‘that’s quite a lot of time spent I could be doing other things” ~High OOH consumer*

*“We got stuck in a traffic jam for an hour so we wouldn’t be home in time for dinner. So we thought we’ll just stop at a service station” ~Low OOH consumer*

‘Enjoyment’ was experienced as rewarding yourself by using OOH food to mark a moment in the day or as a deserved treat, such as a coffee and cake after a presentation, a premium convenience meal (meaning a quick and easy meal that can be consumed on the go but that the participant felt was better than other similar options) after a productive day at work, or a takeaway pizza on a night off when the children were with grandparents. It also served as a source of comfort and a mood lift, helping participants distract themselves, de-stress, or feel better in the moment. Enjoyment further came from “changing it up” by stepping outside everyday routines, getting out of the house, or trying something different, such as dishes or cuisines they would not typically cook at home. While older adults viewed these occasions as an opportunity to get out of the house, young families framed them more as a reward or a source of comfort, particularly during moments of personal time away from family demands.

*“The presentation went really well so it was a little treat to myself thinking ‘I did something that went well and I’m going to reward myself with a treat” ~High OOH consumer*

*“If we’re just wanting to get out the house, we’ll maybe go into Inverness and then maybe go to one of the drive throughs or something like that, just for something a bit different” ~High OOH consumer*

*“You just know that you’re happy, you’re satisfied, you’re de-stressed, you know, it just resolves like 99.9% of your problems” ~Moderate OOH consumer*

OOH food and drink created space for conversation and connection, where the food becomes secondary to the shared experience. These moments ranged from everyday family meals, planned catch ups or more spontaneous moments. One participant described his OOH occasion in a pub as a more intimate moment to focus on conversation and connection with his wife while others talked about this as time they catch up with friends for coffee or a meal. Some considered occasional outing shared

with family and friends, linked to a milestone, celebration or meaningful event. One participant described planning a night away for her birthday and enjoying a nice meal with her husband, while another organised a special meal for his first anniversary with his girlfriend. Shared rituals and routines around different activities was also a key motivation where OOH food becomes part of maintaining these social bonds. For example, one participant described enjoying a pub meal while playing Dungeons & Dragons with friends. Another participant described a regular meal out with his teammates at his bowling club after a game.

*“It’s almost forced dialogue and conversation and interaction between two adults. You’re there and you’re in a little bubble and you can converse intimately or socially about whatever’s important at that point in time” ~Moderate OOH consumer*

*“We always go to that one market and you always go to Tesco’s across the road... It’s more like tradition now.” ~Low OOH consumer*

*“It would be a family outing, it would be a family celebration. It would be either Christmas, birthday or anniversary.” ~Low OOH consumer*

### 7.2.3. Life stage, attitudes, and everyday drivers for out of home consumption by high, moderate and low consumers

High OOH consumers have normalised consuming OOH food and drink as part of their day-to-day life. Most high OOH consumers (16 out of 19) had no dependents and for them, OOH consumption was often connected to socialising, being busy or away from home. Among those with families, 2 described OOH occasions as solo moments, involving quick, efficient meals or a treat for themselves, and 1 talked about a shared family meal out. Older adults were more likely to link OOH consumption to spending time with others.

“We were super hungry coming back from the library, and we didn't want to go all the way home. So we just decided it'd be way better to go to there [McDonald's] just because of how hungry we were, and we wanted to get back to doing work as well” ~*High OOH consumer*

“We eat out for special occasions, meeting friends and things and then take away it's once a week for a Chinese as a treat for the kids on a Sunday night” ~*Moderate OOH consumer*

“Eating out isn't part of my normal routine. It would be a family outing, it would be a family celebration” ~*Low OOH consumer*

“The price of everything is just shot up and it's so expensive to do anything, especially with three children” ~*Low OOH consumer*

OOH consumption was normalised as part of their routine and was often a default solution rather than conscious decision or special treat for high consumers. Regular takeaways and quick service purchases were common, with strong repetition of familiar outlets and items. OOH food was frequently used during working days or periods spent out of the house. Cooking was not always enjoyed and was sometimes seen as a chore rather than a pleasure.

Cost remained an important factor in food choices, with some relying on deals, promotions or avoiding delivery fees. However, a participant mentioned viewing OOH meals as a cost-effective option when taking into account the time and energy saved by not cooking.

Moderate OOH consumers viewed OOH consumption as a deliberate break from home-cooking routines. Most (8 out of 11) had dependents, and children's preferences and household schedules often dictated choices. OOH consumption was framed as a planned family treat or as relief from cooking when participants felt tired and busy. Among those without dependents, OOH consumption was more often socially driven, such as meeting friends.

Takeaways were more frequent and regular, while sit-down meals out were typically reserved for social occasions or celebrations. Consumption was often structured around a regular core OOH meal (for example, a weekend takeaway), supplemented by additional ad hoc occasions.

Most cooked regularly during the week, favouring fresher and healthier options. Cooking followed predictable routines shaped by work and family commitments, and many used strategies such as prepping ingredients, bulk cooking, and freezing portions to make regular cooking more manageable. They were cost-aware and felt the impact of rising costs, which made frequent eating out harder to justify. Framing out-of-home eating as an occasional occurrence helped them justify the expense.

Of the five low OOH consumers interviewed, two were young families living in rural areas, where access to out-of-home food options was more limited. Delivery services were often unavailable, and travelling to eat out or collect food added time, effort, and extra cost. Their OOH occasions showed little variation and were typically reserved for special events, such as a birthday meal, a sit-down meal to reunite family members living across the UK, or a date-night takeaway, with occasional practical top-ups, like ordering in after an exceptionally busy day. Cooking was central to their everyday routine, with quick, familiar meals during the week and weekend batch cooking to support busy days, while more elaborate meals were prepared when time allowed. Enjoyment varied, but cooking was largely seen as a practical necessity. They were cost-conscious, with rising prices acting as a clear barrier to more frequent OOH consumption, and when they did choose OOH food, the experience needed to feel worth the expense.

#### 7.2.4. Concerns related to out of home consumption

Cost was a major concern affecting OOH food consumption, with many noting that eating out is becoming increasingly expensive. This has led some to reduce their frequency compared to the past, to actively seek out deals, or to ensure their budget can accommodate the OOH occasion before going ahead. Cleanliness was another key consideration, with participants frequently mentioning venue hygiene, kitchen practices, and food safety. Health was also raised by a few, but rarely as a primary barrier, often focusing on weight management or perceptions of OOH food as less healthy than home cooking. Those with active lifestyles framed OOH food as a deserved indulgence. Dietary restrictions were non-negotiable for a minority, shaping both venue and food choices, typically driven by health conditions (e.g., Crohn's disease) or religious and cultural requirements (e.g., Halal).

Reducing OOH frequency was often seen as a way to save money and eat more healthily, though many felt this would be difficult to sustain given the convenience and social role of OOH food. Participants suggested that lower-cost meals, better offers

and discounts, clearer pricing on delivery apps, and more time to cook at home could help enable this change. Healthier choices could be supported by clearer portion guidance, improved nutritional information, and more appealing, widely available healthy grab-and-go options, especially for those with dietary restrictions.

These concerns rarely prevented OOH consumption but typically influenced where people went, what they chose, and how often they engaged with OOH options. Rather than deterring consumption altogether, they shaped venue choice and repeat visits. Even when motivated to reduce OOH eating, limited time, higher costs, and habitual routines constrained how much change participants felt able to make.

*"It [eating out]'s not something that we would just do randomly. And that's probably more because of the cost because it's so expensive to eat out."*

*~Moderate OOH consumer*

*"The first thing I look at is a deal, you know to try and get like the sort of best value for my money" ~High OOH consumer*

*"Probably eating out less would be ideal, but whether that's actually going to happen from a social perspective, I don't think so." ~Moderate OOH consumer*

*"I always have a bit of regret afterwards because you know how unhealthy it is."*

*~Moderate OOH consumer*

*"I wouldn't go back to the place again if the plate doesn't look clean or the food doesn't come hot then I wouldn't go back." ~Low OOH consumer*

## Chapter 8. Conclusions

This study provides a comprehensive picture of OOH food consumption among adults living in Scotland, highlighting sociodemographic, nutritional, and behavioural differences by level of OOH consumption.

High OOH consumers were younger and more likely to be male, single, and employed full-time. They were only slightly more likely to reside in urban areas. Older adults, married, and retired individuals were more likely to be low OOH consumers. High OOH consumers sourced food frequently from a variety of OOH outlet types, indicating that frequent OOH consumption reflects not just heavier consumption at one outlet type, but a broader reliance on multiple OOH food environments.

OOH food contributed to 21% of total calories consumed. Generally, across all macronutrients as well as saturated fat, fibre, free sugars, and salt, a similar proportion (20-23%) came from OOH with the rest from household grocery shopping. These proportions are higher than those reported in the UK-wide National Diet and Nutrition Survey (2019-2023) which found that OOH food accounted for 12% of total calories consumed (2). The difference could reflect lower OOH consumption during the pandemic years included in the National Diet and Nutrition Survey, a higher intake of OOH food and drink in Scotland compared to the wider UK, a general increase over time as the data reported here are from the end of 2025 (versus 2019-2023), or some combination of these and other factors.

Notably, high OOH consumers had higher average total energy intakes as well as higher intakes of saturated fat, free sugars, and salt compared to moderate and low OOH consumers.

Taste was the dominant motivator for OOH consumption across all groups, with high OOH consumers placing greater emphasis on convenience-related factors such as time saving, accessibility, eating on the move, and avoiding cooking. Qualitative findings reinforced these patterns, highlighting the convenience of OOH food with reduced effort and mental load and framed as 'buying back time'. Participants commonly described OOH food as a practical response to busy schedules, commuting, fatigue, and childcare demands. This is in line with previous [qualitative work by FSS](#), highlighting similar key drivers such as time scarcity, lower cost of take-out and frozen meals, lack of cooking skills, and single person households for increased OOH consumption (3).

Based on the results of this report, we suggest the following for future policy and research.

## Focus on improving the “everyday” OOH food environment

This study shows that food “on the go” from supermarkets, convenience stores, cafés, bakeries, and sandwich outlets is the dominant form of OOH consumption. These OOH outlets matter at least as much as more traditional takeaways and sit-down restaurants. While there are voluntary initiatives such as the [Healthy Living Programme](#), aimed at supporting Scottish independent retailers to offer healthier choices, retail food “on the go” is a critical intervention point. Nearly four in five adults purchased food “on the go” from supermarkets or convenience stores in the past week. There is a strong case for clearer standards for meal deals and hot food counters, reformulation and portion guidance for retail OOH foods. The [Eating Out, Eating Well Framework](#) and any future regulatory approaches should explicitly and systematically include retail grab-and-go foods, meal deals, and in-store hot food counters. Other initiatives such as [The Food \(Promotion and Placement\) \(Scotland\) Regulations 2025](#), that restricts promotion and placement of high fat, salt and sugar (HFSS) products or the commitment by [major UK supermarkets to increase sales of healthy food](#) are also likely to have a positive impact on OOH retail consumption.

These efforts could initially focus on the top food group contributors to OOH consumption identified in this report, which include:

- Sandwiches including rolls and wraps
- Pasta, rice and other miscellaneous cereals including pizza
- Chips, fried and roast potatoes and potato products
- Chicken and turkey dishes
- Buns, cakes, pastries and fruit pies
- Other milk and cream including milky coffees

## Supermarkets remain the biggest source of calories and nutrients

The vast majority (79%) of calories – as well as nutrients – came from household grocery shopping rather than OOH food. This was true even for high OOH consumers (71% of energy from household grocery shopping). Thus, in order to have large scale impacts on diets, improvements to the supermarket retail environment are essential. This aligns with the recommendation by [Nesta](#) regarding sequencing policy implementation by prioritising retailers, while mandating data collection for OOH businesses (11).

## **Delivery apps are now a routine part of the OOH food environment**

Over one-third of adults used delivery apps in the past week, mainly for ready-to-eat food, with higher use among high OOH consumers. Digital food environments should be incorporated into the Eating Out, Eating Well agenda more explicitly, including transparency on nutrients, standards around price promotions and default upselling and clearer guidance for partner outlets selling through these platforms.

## **Higher OOH consumption is associated with higher intakes of energy, salt, sugar, and fat**

High OOH consumers consumed more energy, salt, free sugars, fat, and saturated fat than low consumers. A [recent analysis by Nesta](#) stated that restaurants, pubs, and bars have the most calorific menus in the OOH sector, with dishes averaging 726 calories (11). They also found substantial variation between businesses with the average calorie content of a menu item at Stonehouse Pizza & Carvery of 1,015 calories, compared with 406 calories at Nando's (11). [Similar work in Scotland](#) also revealed calorie contents of similar dishes was highly variable (12). For example, the calorie content of burger dishes ranged from 250 kcal to 2,577 kcal while the calorie content of salad dishes ranged from 172 kcal to 1,376 kcal (12). The findings strengthen the case for portion size guidance for OOH items, gradual targets for reducing salt, sugar, and fat in OOH foods, and the promotion of smaller default portions and healthier side options. [Longitudinal studies](#) evaluating impact of reformulations demonstrate that these measures are successful (13). [Modelling studies](#) show a 20% reduction in fat content could substantially lower population energy intake, obesity prevalence, and incidence of type 2 diabetes and cardiovascular disease in the UK (14). Together, these findings provide strong support for establishing clearer nutrient benchmarks for everyday OOH menu items.

## **Taste and convenience drive OOH behaviour and can be leveraged to improve consumption of healthier foods**

Taste and convenience (time saving, ease of access, not having to cook) are the dominant motivations, especially among high OOH consumers. Information-based approaches alone such as voluntary calorie labelling or consumer education are therefore unlikely to shift behaviour without parallel action on default healthier options, portion size standards, reformulation of everyday items and availability and prominence of healthier grab-and-go choices. Further, high OOH consumers were younger, full-time workers. The qualitative research supported that OOH consumption for many is habitual and routine, not exceptional. OOH policies could be explicitly designed for these busy, time-pressured consumers ensuring healthier options are just as tasty, quick, visible, and convenient as less healthy ones.

The private sector, from supermarket grocery retailers to independent cafés to multinational fast-food chains, plays a critical role in improving local food environments to make it easier for people across Scotland to make healthier choices.

## Limitations

There are some limitations to this survey, mainly relating to dietary recalls, including under-reporting that is common to nutrition surveys such as those using Intake24 (2). Specifically, foods eaten outside the home are more prone to being [under reported](#). However, the use of the multiple-pass method is likely to have mitigated some of this bias (15). Second, the limited specificity of the Intake24 nutrient database, which is not brand-specific for most items. This may result in nutrient misclassification, particularly for packaged foods and items consumed across multiple OOH settings. Last, while the sample was broadly comparable to the Scottish population, it was slightly younger, more female, and more urban. Given that these characteristics were associated with OOH consumption (though in opposing directions), results may not be fully representative of the Scottish population.

## Future research

An evaluation of OOH consumption in children and young people was out of scope for this project but future research should explore this population subgroup. To improve the resolution and accuracy of reported food and drink, future research could consider integrating an artificial intelligence-based image recognition function (16) into Intake24 to enable real-time data collection rather than relying solely on participant recall. With more specific information on the food and drink consumed, particularly the brand of packaged and OOH items, artificial intelligence combined with large, open-source nutrient composition databases could also improve the accuracy of calories and nutrients derived from intake data (17).

## Conclusions

Given the normalisation of OOH eating and its association with higher intakes of nutrients of concern, meaningful progress on diet and healthy weight will not be achievable without structural changes to the everyday OOH sector. This study provides specific evidence to justify expanding the scope and ambition of current OOH policies, especially integrating retail food “on the go”, cafés, bakeries, and digital platforms.

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## Annexe 1: Web Questionnaire

### IMPORTANT - Please read carefully

For this project to be a success, we would like you to complete 3 food diaries, of all the food and drinks you had **on the previous day**.

When you complete this initial survey you will automatically be directed to the first food diary. We will use the details you provide later in the survey to send you a link to the second and third food diaries **via email** or text message. You will receive these on two random days over the next week. One of those days could be tomorrow.

**If you just complete this initial survey you will receive a £5 voucher.**

**If you complete this initial survey and 3 food diaries you will receive a £20 voucher.**

No.	QUESTION	OPTIONS
1	<p>What is your date of birth? Please enter date of birth below</p> <p>*If age is &lt;16y following warning pops up:</p> <p>To qualify you must be 16 years or older.</p>	DD/MM/YYYY
2	What is your sex?	Female Male Prefer not to say
3	What is your ethnicity?	White Asian or Asian British Black, Black British, Caribbean or African Mixed or multiple ethnic groups Other Prefer not to say Other: Please write in [text field]

No.	QUESTION	OPTIONS
4	What is your marital status?	Married/civil partnership Living as married Married/civil partnership – separated Divorced/dissolved civil partnership Widowed/surviving civil partner Single
5	Including yourself, how many adults (16 years or older) live in your household?	Integer [min 1, max 20]
6	How many children (under 16 years) live in your household?	Integer [min 1, max 20]
7	In the last week, which of the following best describes what you were doing most of the time?	Employed full time Employed part time Self employed Looking after the home or family Permanently retired from work Unemployed and seeking work At school In further / higher education Gov't work or training scheme Permanently sick or disabled Unable to work because of short-term illness or injury Other Prefer not to say
8	If Employed full time, Employed part time or Self employed  Do you primarily work at home or out of home such as at an office?	At home Out of home
In the <b>last week</b> , how often have you purchased food or beverages not including alcohol from...		
9	Food on the go from a supermarket, convenience store or corner shop?  e.g., supermarket meal deals	Did not purchase here this week 1 time 2-3 times 4-5 times 6-7 times More than 7 times

No.	QUESTION	OPTIONS
10	<p>A quick service restaurants /take-away?</p> <p>e.g., McDonald's, KFC, Burger King, Domino's Pizza, Papa John's, independents (fish &amp; chip, kebabs, etc.)</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p> <p>More than 7 times</p>
11	<p>A full service restaurant?</p> <p>e.g., Pizza Hut, Frankie &amp; Benny's, Nando's, Pizza Express, Wagamama, Giraffe, independents</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p> <p>More than 7 times</p>
12	<p>A pub or bar?</p> <p>e.g., Wetherspoons, Brewers Fayre, Harvester, Toby Carvery, Beefeater Grill, independents</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p> <p>More than 7 times</p>
13	<p>A café or coffee shop?</p> <p>e.g., Costa Coffee, Café Nero, Starbucks, department store cafés, independents</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p> <p>More than 7 times</p>
14	<p>A bakery or sandwich shop?</p> <p>e.g., Greggs, Subway, Pret, independents</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p> <p>More than 7 times</p>
15	<p>Petrol stations, cinemas or workplace canteens</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p> <p>More than 7 times</p>
16	<p>A vending machine?</p>	<p>Did not purchase here this week</p> <p>1 time</p> <p>2-3 times</p> <p>4-5 times</p> <p>6-7 times</p>

No.	QUESTION	OPTIONS				
		More than 7 times				
17	An app such as Uber Eats, Deliveroo or Just Eat?	Did not purchase here this week [skip next question] 1 time 2-3 times 4-5 times 6-7 times More than 7 times				
18	Was the food or drink you ordered using the app household shopping or ready-to-eat?	Household shopping Ready-to-eat				
19	Would you say that what you ate and drank this past week was fairly typical for you?	Yes No				
20	Why were you not eating or drinking normally?	Fasting Away from home Other: Please write in [text field]				
<b>Motivations</b>						
<b><i>This section only asked if one of the responses to Q7-Q12 is 1 time or greater</i></b>						
We want you to think about why you eat food away from home. Please tell us how important each of the following factors are in deciding to eat food away from home.						
21	Enjoy the taste	Not important	Slightly important	Somewhat important	Very important	Extremely important
22	Quick/ saves time	Not important	Slightly important	Somewhat important	Very important	Extremely important
23	Can eat on the move	Not important	Slightly important	Somewhat important	Very important	Extremely important
24	Easy to come by	Not important	Slightly important	Somewhat important	Very important	Extremely important
25	Wide variety	Not important	Slightly important	Somewhat important	Very important	Extremely important
26	Don't have to cook	Not important	Slightly important	Somewhat important	Very important	Extremely important

No.	QUESTION	OPTIONS				
27	Treat	Not important	Slightly important	Somewhat important	Very important	Extremely important
28	Socialising	Not important	Slightly important	Somewhat important	Very important	Extremely important
29	Value for money	Not important	Slightly important	Somewhat important	Very important	Extremely important
30	Less expensive than eating in	Not important	Slightly important	Somewhat important	Very important	Extremely important
31	Are there any other reasons why you eat food away from home that are very or extremely important? Please write in (or leave blank)	Text box				
<b>Post code</b> <i>In order for us to classify your address as 'rural' or 'urban' and link your data to retailers in your area, we would like to collect your postcode.</i>						
32	Postcode	6 digits				
<b>Contact Information</b> <i>In order for you to take part in this important project we will require your email and mobile number in order to send you the follow up food diaries.</i> <i>Which contact method would you prefer us to use when we contact you regarding the survey?</i> <i>Please select at LEAST one</i>						
33	Email address	Email address:				
34	Mobile phone number	11 digits				
35	Please fill in your contact details, these will ONLY be used for communications in relation to this project.	Name: Email: Mobile:				

## Annexe 2: Interview pre-task



THE UNIVERSITY  
of EDINBURGH



Thank you so much for agreeing to take part in this research study aimed at finding out more about consumption of out-of-home food in Scotland. When we say out-of-home food, we are talking about all food and non-alcoholic drinks purchased from one of the following:

- Food on the go from a supermarket, convenience store or corner shop (e.g. meal deals, but NOT a ready meal)
- A quick service restaurant or take away e.g. eaten at home or at a friend's house (e.g. McDonald's, Burger King, Indian, Chinese etc)
- A sit-down restaurant (e.g. Wagamama, Pizza Express, Independents)
- A pub (e.g. Wetherspoons, independents)
- A café or coffee shop (e.g. Costa Coffee, Starbucks)
- A bakery or sandwich shop
- Petrol stations, cinemas or workplace canteens
- Hotels, leisure venues, travel hubs
- Vending machines
- Food delivery services (e.g. Uber Eats, Deliveroo or Just Eat, independent delivery services)

This can be eaten outside of the home or in home. Please familiarise yourself with the instruction sheet before starting. Please click on 'Start' to begin your pre-task.

1. What is your name?

This pre-task will focus on the last occasion in which you consumed out-of-home food.

First, we'd like to understand what led up to your food choice.

2. Which of the following outlets did you purchase your out-of-home food from?

- Food on the go from a supermarket, convenience store or corner shop (e.g. supermarket meal deal)

- Quick service restaurant or take away (e.g. McDonalds, KFC, Burger King, Indian take away, Chinese take away)
- Sit-down restaurant (e.g. Wagamama, Pizza Express, independents)
- A pub or bar
- A café or coffee shop
- A bakery or sandwich shop
- Petrol station, cinema or workplace canteen
- A vending machine

3. In as much detail as possible, please describe what out-of-home food you have eaten.

4. Please upload any pictures of the food below.  
Please upload a max of 5 photos.

5. Please upload any videos of the food below.  
Please upload a max of 5 videos.

6. Who was the food for?

- Just me
- Me and my partner/spouse
- Me and my child/children
- Me, my partner/spouse and my child/children
- Me and my friend(s)
- Me and my colleague(s)
- Other (please specify) \_\_\_\_\_

7. Which of the following best describes the out-of-home food you consumed?

- Breakfast
- Lunch
- Dinner
- Snack

8. When did you purchase the out-of-home food?

- Early morning (before 9am)
- Mid-morning (9am-11.59am)
- Early afternoon (12pm-1.59pm)
- Late afternoon (2pm-4.59pm)

- Evening (5pm-9pm)
- Late night (after 9pm)

9. When did you consume the out-of-home food?

- Early morning (before 9am)
- Mid-morning (9am-11.59am)
- Early afternoon (12pm-1.59pm)
- Late afternoon (2pm-4.59pm)
- Evening (5pm-9pm)
- Late night (after 9pm)

10. Which, if any, of the following best describes the MAIN reason why you decided to eat out-of-home food?

- Quick/saves time
- Can eat on the move
- Easy to come by
- Wide variety
- Don't have to cook
- Treat
- Socialising
- Value for money
- Other (please specify)

11. In your own words, how were you feeling when you decided to eat out-of-home food?

Next, we'd like to know about how you bought your food.

12. How did you buy your food?

- In person at the outlet
- Via a delivery app (e.g. Uber Eats, Deliveroo, Just Eat)
- Via the venues own website/app
- Via phone call
- Other (please specify) \_\_\_\_\_

13. Please upload any pictures of the outlet or delivery app screenshots below. Please upload a max of 5 photos or screenshots

14. Please upload any videos of the outlet below.  
Please upload a max of 5 videos.

15. Who was with you when making the purchase?

- Just me
- My partner/spouse
- My child/children
- My friend(s)
- My colleague(s)
- Other (please specify) \_\_\_\_\_

16. In your own words, please describe how you felt while choosing and purchasing your food.

Finally, we'd like to hear about your experience and how you felt afterwards.

17. How did you feel when you first saw or received your food?

- Very excited
- Somewhat excited
- Neutral
- Somewhat disappointed
- Very disappointed

18. In your own words, how did you feel while eating your food?

19. How much did the food cost? Please write cost below without using the £ sign.

20. On a scale from 1 to 5, where 1 is very poor and 5 is excellent, how would you rate the food in terms of value for money?

	1	2	3	4	5
Very poor value[Excellent value]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. On a scale from 1 to 5, where 1 is not at all and 5 is very, how satisfied were you with the food you purchased?

	1	2	3	4	5
Not at all[Very]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. In your words, please describe how you felt after finishing your food.

23. Is this a typical for you?

1. Yes
2. No

24. Can you please describe what a typical looks like for you?

Please click 'Done' to submit.

## Annexe 3: Participant Information Sheet

We are inviting you to take part in a survey to find out more about out of home eating in Scotland. About 1,000 adults across Scotland will take part in this survey. The project is funded by Food Standards Scotland and is being carried out by the University of Edinburgh and Taylor McKenzie, a research survey company based in Glasgow. The Human Ethical Review Committee (HERC) at the University of Edinburgh has reviewed and given a favourable opinion of this project (study number: HERC\_2025\_079).

### What will happen if I decide to take part?

The survey agency, Taylor McKenzie, will ask you to complete a short questionnaire about you and your household. We would then like you to complete three food diaries over one week. We will ask for your email address and/or mobile phone number. These details will be held securely by Taylor McKenzie and will only be used to contact you about this project. We will also ask for your postcode. This will be used to classify your address as rural or urban, and to look at how restaurants, cafés, takeaways and other food businesses nearby may relate to the information provided in your food diary. We will also ask if you would be willing to be contacted to complete an online or face-to-face interview with our team. This interview will include completing a short questionnaire and discussing your experience. AI based analysis software will be used to analyse information from the interviews after it has been anonymised. No AI will be used for analysing data from the questionnaires and food diaries.

### Time commitment

The initial questionnaire should take you no more than 10 minutes to complete. Each food diary should also take around 10 minutes to complete (40 minutes total time). The questionnaire and interview will take about an hour.

### Participant's rights

If you decide to take part but later want to stop being part of the project, you can tell the research team at any time, without giving us a reason. If you contact us before the final report is published, which is likely to be in the summer of 2026, you can also ask us to remove any information you provided. Unless you indicate that you do not want to receive the results of the survey, by contacting us on the email address or phone number provided below, we will send the overall findings to you when the project has been completed.

### Benefits and risks

There are no known benefits or risks for you from taking part in this project. If you decide not to take part, or to stop the project, any benefits and other services you are entitled to will not be affected.

### **Cost, reimbursement and compensation**

Your participation in this survey is voluntary. In return for your participation, you will receive a £5 voucher if you just complete the initial questionnaire. If you also complete three food diaries, you will receive a £20 voucher. If you complete the face-to-face interview, you will receive an additional £50 voucher. Please note that while you may express interest in taking part, this does not guarantee you will be selected for an interview. Only those who are interviewed will receive the additional £50 voucher.

### **Confidentiality / anonymity**

All information collected during the research will be treated as confidential. Taylor McKenzie is responsible for collecting, securely storing, and ultimately destroying all identifiable data. Only fully anonymised data will be shared with the University of Edinburgh research team; no personally identifiable information will be transferred at any stage. The results of this survey may be included in reports or publications, but these will not contain any information that could identify you. The survey platform used complies with UK GDPR and the Data Protection Act 2018.

### **For further information**

If you would like more information before deciding whether you should take part, you can contact the principal investigator Professor Lindsay Jaacks (Lindsay.jaacks@ed.ac.uk or 0131 6506 586) or Taylor McKenzie (Intake24@taylormckenzie.co.uk or 0141 221 8030).

We are inviting you to take part in a survey to find out more about out of home eating in Scotland. About 1,000 adults across Scotland will take part in this survey. The project is funded by Food Standards Scotland and is being carried out by the University of Edinburgh and Taylor McKenzie, a research survey company based in Glasgow. The Human Ethical Review Committee (HERC) at the University of Edinburgh has reviewed and given a favourable opinion of this project (study number: HERC\_2025\_079).

### **What will happen if I decide to take part?**

The survey agency, Taylor McKenzie, will ask you to complete a short questionnaire about you and your household. We would then like you to complete three food diaries over one week. We will ask for your email address and/or mobile phone number. These details will be held securely by Taylor McKenzie and will only be used to contact you about this project. We will also ask for your postcode. This will be used to classify your

address as rural or urban, and to look at how restaurants, cafés, takeaways and other food businesses nearby may relate to the information provided in your food diary. We will also ask if you would be willing to be contacted to complete an online or face-to-face interview with our team. This interview will include completing a short questionnaire and discussing your experience. AI based analysis software will be used to analyse information from the interviews after it has been anonymised. No AI will be used for analysing data from the questionnaires and food diaries.

### **Time commitment**

The initial questionnaire should take you no more than 10 minutes to complete. Each food diary should also take around 10 minutes to complete (40 minutes total time). The questionnaire and interview will take about an hour.

### **Participant's rights**

If you decide to take part but later want to stop being part of the project, you can tell the research team at any time, without giving us a reason. If you contact us before the final report is published, which is likely to be in the summer of 2026, you can also ask us to remove any information you provided. Unless you indicate that you do not want to receive the results of the survey, by contacting us on the email address or phone number provided below, we will send the overall findings to you when the project has been completed.

### **Benefits and risks**

There are no known benefits or risks for you from taking part in this project. If you decide not to take part, or to stop the project, any benefits and other services you are entitled to will not be affected.

### **Cost, reimbursement and compensation**

Your participation in this survey is voluntary. In return for your participation, you will receive a £5 voucher if you just complete the initial questionnaire. If you also complete three food diaries, you will receive a £20 voucher. If you complete the face-to-face interview, you will receive an additional £50 voucher. Please note that while you may express interest in taking part, this does not guarantee you will be selected for an interview. Only those who are interviewed will receive the additional £50 voucher.

### **Confidentiality / anonymity**

All information collected during the research will be treated as confidential. Taylor McKenzie is responsible for collecting, securely storing, and ultimately destroying all identifiable data. Only fully anonymised data will be shared with the University of Edinburgh research team; no personally identifiable information will be transferred at

any stage. The results of this survey may be included in reports or publications, but these will not contain any information that could identify you. The survey platform used complies with UK GDPR and the Data Protection Act 2018.

### **For further information**

If you would like more information before deciding whether you should take part, you can contact the principal investigator Professor Lindsay Jaacks (Lindsay.jaacks@ed.ac.uk or 0131 6506 586) or Taylor McKenzie (Intake24@taylormckenzie.co.uk or 0141 221 8030).

## Annexe 4: Participant Information Sheet (Interview)

We are inviting you to take part in an interview to find out more about out of home eating in Scotland. About 35 adults across Scotland will take part in an interview. The project is funded by Food Standards Scotland and is being carried out by the University of Edinburgh and Taylor McKenzie, a research survey company based in Glasgow. The Human Ethical Review Committee at the University of Edinburgh has reviewed and approved this project.

What will happen if I decide to take part?

We will ask to accompany you on a typical trip to an out of home outlet such as a takeaway or café. We would then like you to complete a brief interview. During the interview we will ask you questions about your experience during the visit to the outlet, and some general questions about your eating habits and any changes you would like to make.

Time commitment

We expect both the visit to the outlet and interview to take about 2 hours.

Participant's rights

If you decide to take part but later want to stop being part of the project, you can tell the research team at any time, without giving us a reason. If you contact us before the final report is published, which is likely to be in the summer of 2026, you can also ask us to remove any information you provided. Unless you indicate that you do not want to receive the results of the survey, by contacting us on the email address or phone number provided below, we will send the overall findings to you when the project has been completed.

Benefits and risks

There are no known benefits or risks for you from taking part in this project. If you decide not to take part, or to stop the project, any benefits and other services you are entitled to will not be affected.

Cost, reimbursement and compensation

Your participation in this interview is voluntary. In return for your participation, you will receive a £50 voucher.

#### Confidentiality / anonymity

All information collected during the research will be treated as confidential. **Taylor McKenzie** is responsible for collecting, securely storing, and ultimately destroying all identifiable data. Only **fully anonymised data** will be shared with the University of Edinburgh research team; no personally identifiable information will be transferred at any stage. The results of this survey may be included in reports or publications, but these will not contain any information that could identify you. The survey platform used complies with **UK GDPR** and the **Data Protection Act 2018**.

#### For further information

If you would like more information before deciding whether you should take part, you can contact the principal investigator Professor Lindsay Jaacks (Lindsay.jaacks@ed.ac.uk or 0131 6506 586) or Taylor McKenzie (Intake24@taylormckenzie.co.uk or 0141 221 8030).

## Annexe 5: Interview guide

### Introductions

Thank you for joining us today. Our research team really appreciates the time you have taken to be here. My name is [insert] and I am from Taylor McKenzie. This interview is part of a research we are conducting for Food Standards Scotland along with the University of Edinburgh on understanding your views about eating out of home. If you agree to participate in this interview, I will ask a series of questions, and I encourage you to contribute your thoughts and insights. This discussion will take around one hour to complete. The interview will be recorded but all personal details will be kept private and confidential.

Key thing is we need you to be honest please, about your views and your behaviour, this is a safe space, everything you say will be confidential.

As you know the research will be used to explore the types of food people eat and why when they are out and about, or when they use delivery apps. This can be a coffee on the way to work, buying a sandwich for lunch, or ordering a takeaway to eat at home.

At the end of our research, we will compile our findings in a report for Food Standards Scotland summarising the findings based on data from about 35 participants. The report will ensure that neither Food Standards Scotland nor any readers can discern individual identities. We may include quotes in the report, but they will be anonymous. No identifying information about you such as your name will be seen by anyone outside of the research team at Taylor McKenzie and the University of Edinburgh.

Please feel free to ask if you have any questions or concerns.

Do you agree to participate in this research study?

### Warm-Up & Scene Setting: Exploration of the Diary Task Experience

- Recall & Context
- Decision Drivers
- Details of the Experience
- Purchase Method & Access Preferences

Emotions & Attitudes Across the Journey (using pre task as basis)

(Looking at before, during, and after the OOH experience)

- How did you feel about it before you made the purchase?
- What about during the eating experience itself?
- And afterwards – were you satisfied, regretful, pleased?

Patterns, Perceptions & Contextual Influences

- How do you plan what to eat? (Looking at whether they plan ahead, how far ahead i.e. weekly or daily, how not having meals planned contributes to instinct to grab something on the go)
- How does OOH fit into your wider eating habits?
- What are your thoughts on cooking? How does cooking fit into your wider eating habits?
- Perceived healthiness vs indulgence for OOH vs cooking
- What makes a meal feel “worth it” to them?
- Are there any concerns (cost of living, health, food safety, nutrition, sustainability)?
- External influences: ads, offers, peers, family needs, neighbourhood environment (takeaways close by)?

Reflections and Future Behaviour

- Thinking about your food choices over the last few weeks — have they changed at all?
- Are you trying to change how you eat out or order in?
- What would make it easier to make the choices you want to make?

Thank and close

## Annexe 6: Sensitivity analysis excluding non-consumers of out of home food

**Table 17.** Mean percentage of energy and macronutrients sourced from household grocery shopping versus out of home outlets among adults 16+ years living in Scotland, 2025, excluding 22 non-consumers of out of home food and drink (n=990).

<b>Food Source</b>	<b>Energy</b>	<b>Carbohydrates</b>	<b>Protein</b>	<b>Fat</b>
Household grocery shopping	78.1%	78.8%	77.9%	77.4%
Out of home (total)	21.5%	20.8%	21.8%	22.2%
Unknown	0.4%	0.5%	0.3%	0.4%
Fast food/takeaway outlet, café, coffee or sandwich shop	13.4%	13.0%	13.5%	14.1%
Sit down restaurant or pub	4.1%	3.8%	4.6%	4.2%
Supermarket, convenience stores, corner shops (food “on the go”)	3.0%	3.0%	2.8%	3.0%
Work	1.0%	1.0%	0.9%	0.9%

**Table 18.** Mean percentage of saturated fat, fibre, free sugars, and salt sourced from household grocery shopping versus out of home outlets among adults 16+ years living in Scotland, 2025, excluding 22 non-consumers of out of home food and drink (n=990).

<b>Food Source</b>	<b>Saturated Fat</b>	<b>Fibre</b>	<b>Free sugars</b>	<b>Salt*</b>
Household grocery shopping	78.4%	79.5%	79.0%	76.4%
Out of home (total)	21.3%	20.1%	20.4%	23.3%
Unknown	0.4%	0.4%	0.5%	0.3%
Fast food/takeaway outlet, café, coffee or sandwich shop	13.4%	12.4%	13.0%	14.6%
Sit down restaurant or pub	4.1%	3.9%	3.2%	4.4%
Supermarket, convenience stores, corner shops (food “on the go”)	2.9%	2.8%	3.2%	3.3%
Work	0.9%	1.0%	1.0%	1.0%

## Annexe 7: Top 5 foods contributing to food groups

<b>Sandwiches</b>	<b>N = 857<sup>1</sup></b>
Ham sandwich with white/malted bread	12.7% (109)
Bacon roll / bap	8.6% (74)
Cheese and ham sandwich with white/malted bread	6.2% (53)
Spicy/sweet chilli chicken wrap	5.6% (48)
Cheese sandwich with white/malted bread	5.3% (45)
<sup>1</sup> % (n)	
<b>Pasta, rice, and other misc</b>	<b>N = 1,483<sup>1</sup></b>
White basmati rice (including easy-cook)	18.3% (271)
Pasta shapes, white/tricolore	7.5% (111)
White rice, e.g. long-grain (including easy-cook)	6.9% (103)
Cheese and tomato pizza (e.g. Margherita)	6.3% (94)
Meat pizza (e.g. Hawaiian, pepperoni, meat feast)	4.1% (61)
<sup>1</sup> % (n)	
<b>Chips, fried and roast potatoes and potato products</b>	<b>N = 776<sup>1</sup></b>
Chips, fried	23.8% (185)
Oven chips	21.9% (170)
Takeaway chips, fries (McDonalds Only)	8.9% (69)
Roast potatoes	8.1% (63)
Chips, french fries/fine cut, fried (from frozen)	7.0% (54)
Takeaway chips, chip shop style	6.8% (53)
Takeaway chips, fries (e.g. Burger King, KFC)	4.3% (33)
<sup>1</sup> % (n)	
<b>Chicken, turkey and dishes</b>	<b>N = 1,063<sup>1</sup></b>
Chicken breast, fried	12.6% (134)
Roast/grilled chicken breast (skin not eaten)	8.7% (93)
Chicken curry home made	6.1% (65)
Roast chicken (skin not eaten)	4.7% (50)
Chicken breast, marinated, shop-bought	4.0% (43)
<sup>1</sup> % (n)	

<b>Buns, cakes, pastries and fruit pies</b>	<b>N = 672<sup>1</sup></b>
Croissant, plain	7.7% (52)
Pain au chocolat/chocolate croissant	7.1% (48)
Chocolate brownie (without nut)	5.1% (34)
Sponge cake, with no filling	4.8% (32)
Sponge cake with butter cream filling, iced (e.g. birthday cake)	4.0% (27)

<sup>1</sup>% (n)

<b>Other milk and cream</b>	<b>N = 894<sup>1</sup></b>
Latte	24.3% (217)
Flat white coffee	20.2% (181)
Cappuccino	12.5% (112)
Hot chocolate, made with milk	4.5% (40)
Latte, made with skimmed milk (skinny latte)	4.4% (39)

<sup>1</sup>% (n)

<b>Meat pies and pastries</b>	<b>N = 203<sup>1</sup></b>
Sausage roll	41.9% (85)
Steak pie, slice from a large pie (including steak and kidney)	9.4% (19)
Steak pie, individual (including steak and kidney)	8.9% (18)
Greggs steak bake	7.4% (15)
Chicken pie, individual (including bacon and vegetable varieties)	4.4% (9)
Greggs chicken bake	4.4% (9)
Scotch pie (Bridie)	4.4% (9)
Pork pie	3.9% (8)
Minced beef pie (including beef and potato)	3.0% (6)
Chicken pie, slice from a large	2.0% (4)
Spring roll with meat and vegetables	2.0% (4)
Cornish pasty (including beef and vegetable)	1.5% (3)
Ginsters cornish pasty	1.5% (3)
Beef wellington	1.0% (2)
Chicken bao bun	1.0% (2)
Steak and ale pie, canned	1.0% (2)
Chicken and vegetable pie, slice from a large	0.5% (1)
Chicken pasty/slice	0.5% (1)
Ham and cheese slice/pie (with or without vegetable)	0.5% (1)
Meat samosas	0.5% (1)
Meat savoury pastry (e.g. ham and cheese)	0.5% (1)

<sup>1</sup>% (n)

<b>White Bread</b>	<b>N = 1,517<sup>1</sup></b>
Toast, white bread	27.9% (423)
Bread roll, white (e.g. hamburger bun)	10.5% (159)
Sourdough bread	7.4% (113)
Garlic bread	7.3% (111)
Toast, sourdough	6.9% (105)
<sup>1</sup> % (n)	

<b>Beef, veal and dishes</b>	<b>N = 560<sup>1</sup></b>
Spaghetti bolognese, home made (pasta and sauce)	19.1% (107)
Chilli con carne	10.4% (58)
Beef lasagne	6.6% (37)
Beef sirloin steak, fried	6.1% (34)
Minced beef, fried	6.1% (34)
<sup>1</sup> % (n)	