

FSS position on calorie information in the Out of Home sector in Scotland

1 Purpose of the paper

1.1 In 2019, Food Standards Scotland (FSS) [recommended](#) that Scottish Government make calorie labelling mandatory in out of home (OOH) outlets at **the point of choice**. Since then, the Scottish Government [consulted](#) on public support for this measure. In light of new evidence, an update to our 2019 recommendation is required. This paper sets out the updated evidence and provides a revised position.

1.2 The Board is asked to:

- **Discuss** the updated position with regards to mandatory calorie labelling and **agree** that we can no longer continue with the original recommendation as previously intended.
- **Note** that, subject to resources, further work is needed to further explore alternative routes for progressing the policy, taking account of new evidence.
- **Note** that further to the Board's discussion, the Chair should write to Scottish Ministers on behalf of the Board to advise them of this updated position.

2 Strategic aims

2.1 This work supports FSS Strategic Outcome 2 – Consumers Have Healthier Diets; 4 – Consumers are empowered to make positive choices about food; 5 – FSS is trusted and influential. It also supports our [Public Health Nutrition Strategy](#) vision for a healthier and more sustainable food environment.

3 Policy Background

- 3.1 In 2019, as part of a suite of measures to improve the out of home food environment, Food Standards Scotland (FSS) [recommended](#) the introduction of mandatory calorie labelling at the **point of choice** in the out of home sector¹ be explored.

Calorie labelling means displaying the calorie value for non-prepacked food and non-alcoholic drinks at the *point of choice*, for example, on menus, display boards, digital ordering terminals and online ordering apps.

Rationale for recommending mandating calorie labelling in 2019

- 3.2 The need for action to improve health by improving the food environment in Scotland was well [established in 2019](#). Data indicated food and drinks purchased OOH formed a significant part of our diet and continue to do so with an estimated 25% of calories consumed from the OOH sector. [Evidence](#) indicated that the energy density of OOH foods is higher than food prepared in the home and is typically higher in fat, sugar and salt. Furthermore, published data indicated that eating OOH is [associated](#) with higher risk of obesity and food from fast-food outlets or takeaways is [associated](#) with higher calorie intakes. This highlighted the need to take action to increase the availability, promotion and consumption of healthy food in the OOH sector.
- 3.3 There was recognition of the need for mandatory action to improve the out of home food environment; voluntary measures had been inconsistently implemented, ineffective and not achieved the scale of change needed.
- 3.4 Mandatory calorie labelling had already been introduced in other countries across the world prior to 2019 including the USA, Canada, and Australia. Evidence indicated that calorie labelling can positively impact public health in two ways: [consumer behaviours](#) and OOH outlets [improving their offering](#) towards healthier food. This is illustrated in Figure 1 below.

¹ See Annex A for a full definition of the OOH sector

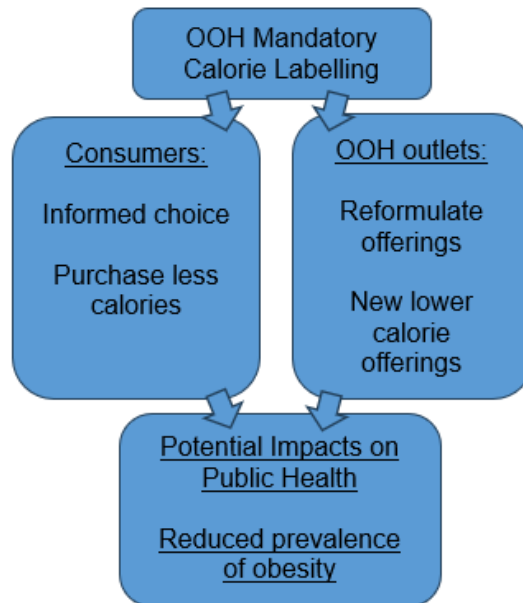


Figure 1 - Route of potential impact of OOH calorie labelling on public health

3.5 The public [consultation](#) undertaken by FSS in early 2019 identified that 68% of respondents were in support of mandatory calorie labelling at point of choice in Scotland.

Scottish Government actions

3.6 Following the 2019 FSS recommendations, and the publication of the Scottish Government’s [Diet and healthy weight out of home action plan](#) in 2021, the Scottish Government undertook a public consultation on mandatory calorie labelling in 2022. The [consultation analysis](#) identified that 79% of respondents opposed mandatory calorie labelling at point of choice. This was driven by a high number of individual respondents and clinical professionals expressing concern regarding potential negative impacts of the policy on those with lived experience of eating disorders. Further concerns were raised regarding practical considerations including implementation costs, particularly for small and microbusinesses.

3.7 In May 2023, Scottish Government [announced](#) a pause in progressing with the policy to take further account of these concerns and await the outcome of research commissioned to explore the perception of calorie labelling on those with lived experience of eating disorders.

3.8 A full timeline of activity leading up to this point in the policy development is provided in Annexe B.

UK policy landscape

- 3.9 [Regulations](#) for mandatory calorie labelling in the OOH sector in England came into force in April 2022 for businesses with 250 or more employees. This is [estimated](#) to represent 18% of outlets in the OOH sector in England in 2022 and 47% of the sector's turnover.
- 3.10 Large business with premises in Scotland as well as England, may provide calorie labelling voluntarily due to implementing across all of their outlets. A few medium, small or micro businesses in Scotland may provide calorie labelling on a voluntary basis, but data on this is not routinely collected.
- 3.11 In Scotland, the [Eating Out, Eating Well Framework](#) is being piloted to support OOH outlets provide healthier options. The voluntary framework encourages OOH outlets to calculate calories in their dishes using our free calorie calculator tool, MenuCal. They are then asked to review provision against maximum calorie recommendations (developed from the UK wide [Reduction and Reformulation targets](#)) and reduce calories where appropriate. The pilot is currently being independently evaluated and is due to conclude in autumn 2024.
- 3.12 The Welsh Government [consulted](#) on proposals for mandatory calorie labelling in 2022. They are currently reviewing the evidence base before considering next steps.

4 Evidence on calorie labelling and the OOH food environment published since 2019

The OOH food environment

- 4.1 What surrounds us, shapes us: the need for action to improve health by improving the food environment in Scotland is well established. The OOH food environment continues to pervade our eating behaviours and influence our diet more than ever before. We estimate that there are around 45,000 OOH outlets in Scotland that fall within our definition,² and most recent (unpublished) Kantar data suggest that, on average, people living in Scotland made 3.8 trips to the OOH sector each week during 2023. Across Great Britain, [average calories](#) from food purchased OOH are in the region 300 kcal per person per day. FSS modelling indicated that eating out four times per week could add an additional

² The number of outlets is sourced from Food Standards Scotland's FHIS database as at July 2024.

787 kcal to the diet per week when following a [diet](#) comparable to the Eatwell guide, compared to if no eating OOH occasions took place (Annexe C).

- 4.2 In 2018, Public Health England published [recommended](#) calorie intakes to be around 600 kcal for lunch or dinner. However, [research](#) indicates that most meals in the OOH sector commonly exceed this guidance. In addition, [FSS research](#) found the average calorie content of sweet discretionary items to be 465 kcal, with a huge range (43 kcal to 1639 kcal). A recent study which analysed the calorie content of popular meals from independent take aways also found both a very high average calorie content as well as a huge range for the same dishes. This is summarised in annexe D. This wide variation makes it difficult for consumers to know the calorie content of foods they are purchasing, but also demonstrates the scope for reformulation, particularly by reductions in portion size.
- 4.3 [FSS data](#) shows that the takeaway and delivery market in Scotland has grown dramatically in recent years. Across Great Britain, digital technology, such as use of apps such as Just Eat, Deliveroo, restaurant's own apps and websites, have played a key role in this growth, with [approximately](#) 32% of the calories purchased from fast food in 2021 being ordered digitally. A recent [report](#) in England identified that fast food and takeaways dominate the types of outlets found on these digital platforms, with less healthy food items found to be at the top of menus, and promotional activity, specifically utilising volume-based discounts, frequently offered by OOH food outlets. [Most adults](#) living in Scotland use digital technology to order food OOH, particularly among adults under 45 years of age, with the majority of people ordering more often they otherwise would, due to the ease of using these methods.

Evidence of impact of calorie labelling on consumer behaviours

- 4.4 In 2022, FSS [published](#) a rapid evidence review of the impact of calorie labelling on the number of calories purchased or consumed. Whilst the evidence base is mixed, overall it showed a reduction in the number of calories purchased or consumed when calorie labelling is present but lacks long term studies in real word settings comparable to the OOH context in Scotland.
- 4.5 A recent observational [study](#) (pre-print) indicated that calorie labelling implemented as a result of it becoming regulatory in England in 2022 has not resulted in a reduction in calories purchased by consumers in OOH outlets. Emerging findings from a further study has shown similar results (as yet unpublished).

Evidence of impact of calorie labelling on OOH outlets

- 4.6 Our rapid evidence review published in 2022 reported that, on average, OOH outlets reduced the calorie content of items they serve after the implementation

of calorie labelling. This reduction in calorie content of items provided by outlets (reformulation) has a positive effect on reducing calories purchased across the population, without the need for consumers to make a conscious choice.

- 4.7 A further [study](#) exploring changes in calorie content of menu items sold by 78 large OOH outlets in England found that post implementation, the mean calorie content of menu items decreased by 9 kcals after the introduction of mandatory calorie labelling in 2022. This was largely driven by the removal of higher calorie items and the introduction of new lower calorie items.
- 4.8 Restaurant menu [data](#) from 59 large chain restaurants in the USA found that while restaurants did not change the calorie content of existing menu items following introduction of mandatory calorie labelling, new items introduced after calorie labelling contained significantly less calories (approximately -25%).
- 4.9 Anecdotal evidence from manufacturers who have engaged with the Scottish Government's [Reformulation for Health](#) programme has shown that the introduction of mandatory calorie labelling in England is driving demand from their buyers for lower calorie products in the OOH sector.
- 4.10 A [study](#) examined outlet compliance with legislation pre-implementation versus post-implementation in England in 117 food outlets and found that while the provision of calorie labelling significantly increased, only 15% of outlets met all labelling compliance criteria.

Evidence on impact of calorie labelling on inequalities

- 4.11 A systematic [review](#) and meta-analysis published in 2023 sought to determine if there was a difference in impact of calorie labelling on consumer behaviours by socio-economic status but found no convincing evidence of this.

Evidence of impact of calorie labelling on people with lived experience of eating disorders

- 4.12 Eating disorders are complex mental illnesses that cover several conditions, which although can affect anyone, are most likely to be experienced by young women between the age of 12-20 years. Eating disorders and obesity are not separate issues, and the relationship between them is complex since many with lived experience of eating disorders also live with obesity. [Beat](#), the UK's eating disorder charity, estimate that around 1.25 million people in the UK are living with an eating disorder (1.9% of the population).
- 4.13 Following the Scottish Government consultation on mandatory calorie labelling at point of choice, Public Health Scotland undertook qualitative [research](#) to explore the perspectives of people with lived experience of eating disorders when eating out of home. The study found that the negative consequences for

this vulnerable population outweighed benefits derived from calorie labelling. The mandatory nature of the policy removes any choice in whether they receive calorie information. This research also highlighted that calorie information on pre-packed food items when grocery shopping can present problems for individuals, and that when eating OOH, the current lack of calorie information provides a sense of freedom.

- 4.14 Other [studies](#) published in the last two years have consistently found the introduction of calorie labelling detrimental to those living with or recovering from an eating disorder. A large cross sectional [study](#) showed relapse and hyper fixation on calories as potential harmful impacts as a result of OOH calorie labelling, while a recent qualitative [study](#) found that discussion about calories/dieting when eating out with others, normalising calorie counting and equating health with lower calories which contrasts with advice they received in treatment, were identified as potential harms as a result of calorie labelling policy in England.
- 4.15 Whilst the majority of the evidence on this matter is qualitative, often with small sample sizes, overall, there is a mounting body of evidence demonstrating a risk of harm to those living with, recovering from, or vulnerable to developing an eating disorder, than when the original proposal was made. It is also important to note that there are gaps in the evidence base, for example, evidence from clinicians and views of carers/supporters of people living with an eating disorder.
- 4.16 A proposed mitigation to reduce the risk of harm for those living with an eating disorder is the provision of calorie free menus on request. This proposal was explored in several of the studies discussed above and was included in the Scottish Government consultation. However, [evidence](#) indicates that this is not a sufficient solution to protect this vulnerable group.

5 Discussion

- 5.1 There is no silver bullet to improve diet and levels of healthy weight. A multi-faceted approach is required across the whole food system, focusing on improving the food environment to make healthy food the easy and accessible option for all. The proliferation of OOH food in our everyday lives is here to stay, bringing with it a negative impact on our diet. The OOH environment is currently awash with high calorie food and drinks which are heavily marketed and promoted with few healthy options available.
- 5.2 Mandatory action is required to drive improvements to the OOH food environment on the scale that is needed to support improving the health of the population in Scotland. At present, there is no requirement for non-prepacked

OOH food and drinks to provide any nutrition information, yet they significantly contribute to dietary health and wellbeing.

- 5.3 Those living in the most deprived areas of Scotland have the most to gain from improvements to the OOH food environment. [Data](#) in England has shown there are five times more fast-food outlets in the most deprived areas than least deprived. Evidence of reformulation as a result of OOH outlets knowing the calorie contents of their offerings can have a positive effect on reducing calories provided in OOH foods, without placing the onus on consumers. This is particularly important as there is increasing [evidence](#) that population wide measures such as reformulation are more likely to be equally or more effective among those experiencing health inequalities, thereby contributing to addressing this.

Overall assessment of available evidence

- 5.4 Public health interventions need to be safe, effective and equitable. At present, the evidence gives low certainty that calorie labelling at point of choice supports consumer behaviour change when implemented in comparable real world contexts. Additionally there is now evidence of moderate certainty that calorie labelling at point of choice can have a negative impact on certain population groups, namely those living with or recovering from an eating disorder. More positively there is strengthening evidence, but still with limited certainty, that calorie information leads to a small but significant reduction in calories in menu items as a result of action by OOH outlets. However, what is certain, is that a lack of information about the true extent of the provision in the OOH sector is limiting progress to improving the food environment. Improved transparency leads to action.

Options appraisal

- 5.5 Taking account of the evidence set out in section 4, there is a need to review the FSS position with regards to recommending mandatory calorie labelling at the point of choice for out of home outlets in Scotland. In reviewing the FSS position, we considered the following options:
- Option 1 – Do nothing - calorie labelling continues to be voluntary in out of home outlets in Scotland.
 - Option 2 – Pursue progression of the original recommendation of mandatory calorie labelling at **point of choice** in out of home outlets in Scotland.
 - Option 3 – Explore shifting to mandatory provision of **calorie information on request** in out of home outlets in Scotland, and whether this should be extended to broader nutrition information.

- 5.6 Option 1 will not realise the necessary improvements to the OOH food environment on the scale that's needed to improve diet and health in Scotland. Furthermore, without Scottish specific regulations, businesses who implement calorie labelling across their UK sites will likely implement the requirements of the English regulations. Within these regulations, there is no requirement for outlets to provide a menu without calories on request which has been highlighted by Beat as a serious issue for people with lived experience of an eating disorder.
- 5.7 Given the shift in evidence, the Executive would **not recommend** the continued pursuit of option 2 as originally anticipated due to the potential negative impact on a vulnerable population group.
- 5.8 Option 3 presents a shift towards provision of **calorie information** (rather than 'calorie labelling') to be available **on request** (rather than 'at point of choice'). This would provide the following benefits:
- Requires OOH outlets to calculate calories of their offering enabling the reformulation and monitoring impacts to be realised that will benefit the population equitably.
 - Enables consumers to access information to make informed decisions about what they are purchasing.
 - Removes the requirement for OOH outlets to provide potentially triggering calorie information at point of choice thereby protecting those with eating disorder concerns from exposure to this information, and subsequent discourse regarding calorie values.
 - There is the potential for OOH outlets to provide a broader range of nutrition information beyond calories.
- 5.9 This option has the potential for OOH food outlets to take greater action and responsibility for their part in improving health by reviewing and reducing calories in their offerings, alongside shifting sales towards healthier food, thereby improving the food environment. However, this has to be coupled with stronger emphasis from Scottish Government that this is needed. Additionally, further exploration with industry and evidence of impact of both calorie information on request and provision of broader nutrition information is needed before being confident that this could be a feasible option in the future.
- 5.10 Provision of broader nutrition information for OOH foods (i.e. sugar, fat, saturated fat, and salt), would provide greater transparency and richer data for monitoring provision and reformulation within the sector. Furthermore, provision of calorie information **only** was a major criticism of the Scottish Government consultation on mandatory calorie labelling in 2022. Many respondents said that broader nutrition information provides a more complete picture of a food item for consumers to base their purchasing decisions on. In a recent FSS

consumer tracker survey (July 2024), 71% felt that full nutrition information should be available on request when eating out.

- 5.11 However, there are existing barriers for this to be a practical or feasible option at this time. As highlighted in our [2019 OOH board paper](#), there is no existing consumer information scheme that is suitable for OOH foods. Where broader nutrition information is provided at present, it is inconsistent and often incomplete. Furthermore, the impact broader nutrition information (on either consumers or OOH outlets) in comparison to calories only has not been researched in any depth.
- 5.12 The rapid development of digital technologies in the OOH sector mean that providing information on request (e.g. accessed via QR codes on menus rather than the calorie information on menus) is now more feasible and practical than ever before. Covid-19 drove many OOH food outlets to use QR codes for customers to access menus, and many have continued with this practice. This is now a common way of outlets providing information about allergens for their customers, and some larger outlets now make calorie (and in some cases wider nutrition information) available at the same time. On digital ordering platforms, some outlets now also provide a toggle to allow consumers to switch calorie information on or off, thereby making it available only to those that wish to see it. A recent lab based [study](#) showed that where this toggle was present, calories ordered reduced when the default position was either calories on or off. Whilst not all OOH food outlets have this digital capability at present, it demonstrates that information can be provided in this way and can be utilised to good effect.
- 5.13 There could be likely interest in progressing this policy on a four nation basis given the evidence presented within this paper. In considering our priorities for delivery of our Public Health Nutrition Strategy, we will review resourcing to support development of this evidence base in the coming business year.

Other considerations

- 5.14 Mandating **removal** of existing voluntary calorie labelling at point of choice has not been presented as an option as this would be a retrograde step, presents costs to OOH outlets and would lead to an inconsistent approach between Scotland and England.
- 5.15 The introduction of mandatory calorie caps for the OOH sector has not been included as an option at this time. This is because to implement this, outlets would need to calculate calories in their offerings which is not currently in place in the majority of outlets. Furthermore, consultation analysis indicated that this option is not supported by the OOH food industry. However, this should be considered in the future, alongside option 3, following the outcome of the review of progress with the Reduction and Reformulation programme.

- 5.16 Given the evidence presented in section 4 and 5, we **recommend** that FSS no longer continue with the original recommendation of mandatory calorie labelling at point of choice in Scotland as previously intended. Further work is needed to further explore alternative routes for progressing the policy, taking account of new evidence, as set out in this paper.

6 Identification of risks and issues

- 6.1 The Board's risk appetite is HUNGRY for innovative ways to improve the Scottish Diet and CAUTIOUS where there is uncertainty around the balance of risks and benefits for public health or other consumer interests. Option 3 takes this risk appetite into account.
- 6.2 There is a requirement to progress mandatory action within the OOH sector in Scotland given the high risk of limited progress to improving the food environment, contributing to a lack of progress of achieving the Scottish Dietary Goals.
- 6.3 Given that calorie labelling is already a requirement for OOH outlets with 250 or more employees in England, option 3 may be viewed as a less ambitious step for Scotland. However, Scotland has the ability to apply any future requirements to a broader range of OOH outlets (e.g. medium, small and micro OOH outlets, as well as for all of the public sector) meaning a far higher prevalence of information available to consumers and reformulation by OOH outlets would likely increase.
- 6.4 Option 3 requires capacity and resource to further develop policy proposals and to understand what market developments there are in this area. For example, further research exploring the feasibility and use of digital technology such as QR codes to provide access to nutrition information, consumer interaction, the extent and nature of the reformulation that can be expected, and support required for OOH food outlets to do this is needed. Further work to develop a suitable consumer information scheme for broader nutrition in OOH is also required.
- 6.5 The Board should be aware that support for option 2 from consumers and stakeholders, including public health, is changing due to the raised awareness of the potential impact on those with lived experience of eating disorders. Continuing with this approach would risk FSS being increasingly isolated in this stance. In contrast, it is our view from previous discussions that public health stakeholders will be supportive of option 3 given it places greater emphasis on change to the food environment by the OOH sector rather than individuals.

- 6.6 Option 3 could create a divergent approach to the regulations for calorie labelling already implemented in England which could present challenges for those who operate across the border. However, the Internal Market Act should not preclude this from happening. Furthermore, current capacity within food law enforcement would be a risk to successful implementation and monitoring of any new regulations.
- 6.7 Provision of calorie information would create additional burden for OOH outlets, both during the initial implementation phase, and following any subsequent changes to menus. However, these costs would need to be balanced against the longer term potential savings from improving public health primarily through an improved OOH food environment as a result of reformulation by OOH outlets. This represents a move away from the emphasis on consumer behaviour change of acting on calorie and/or nutrition information. The benefits would need to be demonstrated through development of a business and regulatory impact assessment (BRIA) when sufficient evidence is available to support this.

7 Equality Impact Assessment and Fairer Scotland Duty

- 7.1 A draft Equality Impact Assessment, Fairer Scotland Impact Assessment and Business and Regulatory Impact Assessment were produced ahead of the Scottish Government consultation on mandatory calorie labelling in 2022. The findings from these draft impact assessments were not published, but have been used to inform the development of this paper. Further development and updating of these impact assessments will be required in progressing any policy proposal.

8 Conclusion

- 8.1 To improve health, there is a need to improve the OOH food environment which continues to negatively impact our diet in Scotland. Mandatory action is required to drive these improvements at scale.
- 8.2 The evidence base now shows that mandatory calorie labelling has a negative impact on a sub-group of the population, and there is low certainty with regard to population benefit through influencing consumer behaviour. In addressing a clear public health imperative, we should not introduce a potential adverse consequence. However, there are positive impacts on OOH outlets reformulating their offering in response to the requirement to calculate calories.
- 8.3 In light of this, we need to revise the position of recommending mandatory calorie labelling at the point of choice in out of home venues in Scotland.

Instead, further exploration of an alternative approach which considers full nutrition information alongside an information on request basis is advised.

- 8.4 The Minister for Public Health and Women's Health has been informed that we will provide an updated position in light of new evidence.

9 Recommendations

9.1 The Board is asked to:

- **Discuss** the updated position with regards to mandatory calorie labelling and **agree** that we can no longer continue with the original recommendation as previously intended.
- **Note** that, subject to resources, further work is needed to further explore alternative routes for progressing the policy, taking account of new evidence.
- **Note** that further to the Board's discussion, the Chair should write to Scottish Ministers on behalf of the Board to advise them of this updated position.

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Annexe A

The OOH sector is defined as including:

- Cafes, all types of restaurants, takeaways, pubs/bars, bakeries, sweet and dessert shops, vending machines, workplace canteens, hotels, mobile caterers, leisure and entertainment venues.
- Supermarkets, delicatessens and convenience stores who provide “food on the go”.
- Places where we purchase food and non-alcoholic drinks when commuting or travelling.
- Manufacturers and suppliers of food to the OOH sector.
- Food delivery services, including online services.
- OOH outlets in the public sector, including food provided for staff and visitors in prisons, military settings, and adult care and health care settings
- Any other venue or outlet that sells non-prepacked food ready for immediate consumption.

Annexe B – Timeline of key OOH actions

Date	Document/Report	Author	Relevant Points
Jan 2016	Board Paper: Proposals For Setting The Direction For The Scottish Diet	FSS	Set proposals for the provision of calorie labelling on menus across both public and private sectors in Scotland.
March 2017	Board Paper: Proposals For Setting The Direction For The Scottish Diet One Year On	FSS	Recommended that an OOH strategy for Scotland be developed.
July 2018	A Healthier Future: Scotland's Diet and Healthy Weight Delivery Plan	Scottish Government	Instructed FSS to consult on and develop an Out of Home Strategy for Scotland
November 2018	Consultation: Proposals to Improve the Out of Home Environment in Scotland	FSS	Sought views on a range of measures to improve the OOH food environment in Scotland
August 2019	Board Paper: Recommendations for an Out of Home Strategy for Scotland	FSS	Recommended Ministers make calorie labelling mandatory for OOH food businesses in Scotland and means to achieve this are explored immediately.
Sept 2021	Diet and healthy weight: out of home action plan	Scottish Government	Tasked FSS to develop detailed proposals for mandatory calorie labelling at the “point of choice” in Scotland.
April 2022	The Calorie Labelling (Out of Home Sector) (England) Regulations 2021	UK Government	Legislation applying to large businesses such as takeaways, restaurants and cafes comes into force in England.
April 2022	Consultation: Mandatory calorie labelling in the Out of Home Sector in Scotland.	Scottish Government	Sought views on proposals for mandatory calorie labelling in Scotland.
May 2023	Meeting of the Parliament: Diet and Healthy Weight Consultations	Scottish Parliament	Announcement of pause in progression with the policy to take further account of concerns of impact on OOH sector and those living with eating disorders.

Annexe C - FSS analysis of Eat Well Every Day menu substituted with four OOH occasions

FSS have undertaken desk-based research to understand the dietary impact of eating OOH four times per week, as indicated by data from Kantar on consumer behaviour in 2023.

Using one week's menu from [Eat Well, Every Day](#), which has been designed to reflect recommendations for a healthy balanced diet within the [Eatwell Guide](#), four eating occasions were replaced with:

- a lunch meal deal that you'd typically purchase from a supermarket (cheese & ham sandwich, crisps and diet cola drink),
- a latte coffee with a muffin as an afternoon snack,
- a bag of crisps and carbonated fruit juice drink as an afternoon snack,
- one take away fish & chips as an evening meal

These replacement options were selected based on the most popular purchases within Food Standards Scotland's OOH monitoring data.

It was found that replacing these eating occasions with OOH purchases resulted in an additional 787 kcal within the weekly diet, compared to if no eating OOH occasions took place.

While these findings do not take into account consumption or compensatory eating behaviours, it suggests that eating OOH regularly, over a period of time, may have a cumulative impact on energy intake, thus implications for public health.

Annexe D

Mean calorie values and ranges for popular OOH meals from independent take aways in England, Scotland and Wales from lab analysis conducted by Nesta in 2024.

Dish	N	Mean	Range
Battered cod and chips	59	1462 kcal	878-2257 kcal
Chicken chow mien	60	720 kcal	159-1281 kcal
Chicken korma and garlic naan	60	1495 kcal	1034-2377 kcal
Chicken tikka masala and pilau rice	60	1371 kcal	895-1868 kcal
Coated chicken burger and chips	59	1201 kcal	1002-1744 kcal
Margherita pizza	60	1185 kcal	506-1946 kcal
Pepperoni pizza	60	1314 kcal	621-2286 kcal
Sausage and chips	59	1246 kcal	741-2290 kcal
Single beef burger and chips	59	1141 kcal	664-1832 kcal
Sweet and sour chicken and egg fried rice	60	1741 kcal	1141-2496 kcal