

DRAFT REGULATORY IMPACT ASSESSMENTS

HEALTHY FOOD ENVIRONMENT PROPOSALS

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DRAFT REGULATORY IMPACT ASSESSMENT

PROPOSAL 1- VALUE PROMOTIONS

Preferred option summary

The following table presents a summary of the costs and benefits for the preferred proposal as a whole. The table has been designed to present the information required under Standing Order 26.6 (viii) and (ix).

Restricting the value promotions of high fat, sugar, and salt (HFSS) products which are of most concern for childhood obesity		
Preferred option: Option 1 restricts all value offers for HFSS products which are of most concern for childhood obesity in medium and large retailers.		
Stage: Consultation	Appraisal period: 2021/22 - 2046/47	Price base year: 2021/22
Total Cost Total: £22.9m Present value: £15.3m	Total Benefits Total: £492.4m Present value: £386.2m	Net Present Value (NPV): £371m

Administrative cost

Costs: Trading Standards officers from 22 Local Authorities will need 6 hours of time to become familiar with the regulation and products to which it applies. We assume a small transitional cost and ongoing revenue costs to ensure regulations continue to be observed. It is assumed that Retail Outlets are visited every 3.5 years. 15 minutes of the visit is assumed to be spent reviewing adherence to these regulations.			
Transitional: £5k	Recurrent: £7k	Total: £176k	PV: £116k
Cost-savings: NA			
Transitional: £	Recurrent: £	Total: £	PV: £
Net administrative cost: PV £0.1			

Compliance costs

Transitional compliance costs will be incurred by Retailers. These costs will comprise the time to get familiar with the new regulations, time to make an assessment of which products will be in scope, distribution of knowledge throughout the business, updating IT systems and Online offering. Familiarisation costs assume 1 Manager hr x Avg. Hourly Rate x No. of Outlets. Chain outlets assume an additional 15 hrs for communication to branches. Product Assessment costs assume 2mins x Avg. Hourly Rate x No of products.

Transitional: £290k	Recurrent: £0	Total: £290k	PV: £0.3m
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Other costs

Retailers are expected to plan promotions to maximise profits. Consequently, any restriction on their ability to do this is expected to reduce profits. DHSC have developed a methodology which concludes that a retailer is likely to see sales revenue reduce by 0.59% due to restrictions on volume promotions. We have assumed a further 0.65% will be reduced due to restrictions on price promotions. Assuming a Margin of 3% will result in a Retailer loss of £6.3m in profit. Manufacturers who supply the Retailers will also lose sales and therefore profits. It is assumed HFSS Manufacturers will lose £10.6m of profit while Non-HFSS manufacturers will gain £2.4m of profit.

Transitional: £0	Recurrent: £0.5m	Total: £12.5m	PV: £8.25m
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Unquantified costs and disbenefits

Non-monetised costs include reformulation costs to manufacturers, any impact on retailer and manufacturer relationships and the impact on wholesalers from reduction in sales of HFSS products.

As costs and benefits can be significantly influenced by a wide range of factors, consumers may adjust their consumption or purchasing behaviour in response to consuming fewer calories. The range of response can vary from zero compensation to 100% compensation. The central proposition is that there will be 40% behavioural compensation i.e., the measures will be 60% effective.

Benefits

The expected NHS Wales savings for Option 1 are estimated to be around £22.7m over the 25-year assessment period. Reduced morbidity would also result in reduced cost pressures to the NHS in Wales. Health benefits to the population are estimated to be worth around £301m. Social care savings would amount to £26.7m and reduced premature mortality would be expected to deliver an additional £35.7m economic output through additional labour force participation.

Total: £	PV: £340m
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Key evidence, assumptions and uncertainties

The main underlying evidence is from work done by the Childhood Obesity Team from the Department of Health and Social Care (DHSC) in developing Impact Assessments 13011¹ and 9560². The principal assumption is that the methodology and assumptions that this work is built upon for England are equally valid in Wales. It is assumed that the Welsh results can be extrapolated by applying a factor of 6%. This is based on the relative population and NHS budgets in England and Wales. One key difference in the impact assessment for England is that it assumes that restrictions will be for 'volume' promotions only. In Wales we have assumed that volume and price promotions will be restricted. The net impact of the restriction of volume promotions is assumed to be 0.59% of sales. In Wales, for Volume and Price promotion restrictions we have assumed that the impact will be a 1.24% reduction in Retail Sales. The analysis is also based on the assumption that micro and small businesses as well as speciality businesses eg Chocolatiers are excluded from scope. The analysis assumes that a micro business has less than 10 FTE employees and a small business has 11-49 FTE employees.

Introduction

The aim is to reduce overconsumption of HFSS products and also to encourage businesses to promote healthier products and to further incentivise reformulation.

The restriction of value promotions on HFSS food and drinks is intended to:

- Reduce overconsumption of HFSS products likely to lead to excess calorie intake and, over time, weight gain, while minimising the impact on food purchases that do not contribute to childhood obesity;
- Shift the balance of promotions towards healthier options and maximise the availability of healthier products that are offered on promotion, to make it easier for parents to make healthier choices when shopping for their families;
- Create a level playing field in which stores that make voluntary progress are no longer penalised;
- Assist the wider Healthy Weight: Healthy Wales strategy to reduce circumstances currently contributing to the obesogenic environment.

1

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770705/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf

2

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf

Types of value promotions

Value promotions fall into two main categories,³ volume offers and temporary price reductions, both of which are outlined below.

Volume offers include:

- Multi-buy offers - where the discount is obtained by purchasing more than one unit, such as in buy-one-get-one-free and 3 for 2 offers.
- Combination offers - where a discount is given when individuals purchase a specified combination of products, as is the case in meal deals for example.
- Linked offers - where the consumer is offered a free or discounted product when they purchase another product, such as a half price drink when they buy a sandwich.
- Extra for the same price - when the consumer is given more for the same price, such as 50% extra free.

The second category of value promotion is temporary price reduction, i.e. pricing that demonstrates good value by referring to another price, typically of higher value. This category includes:

- Was/now prices - which compare an advertised price to a price the retailer has previously charged,
- After promotion or introductory prices - which compare the current price to a price that the retailer intends to charge in the future,
- Recommended retail prices (RRP) - which compare the advertised price to one recommended by the manufacturer or supplier and,
- External reference prices - which compare an advertised price to a price charged by another retailer for the same product.

For the purposes of this IA, we use value promotions to cover all types of promotional offers on food and drink, temporary price reductions (price cuts) to describe all promotions falling under the reference pricing category above and volume promotions to describe all volume offers. The policy targets all value promotions.

Options

Option 0 – Business as usual

This is the business-as-usual scenario against which all other options are compared. This assumes no changes in age-specific rates of overweight and obesity, but does assume that the average BMI of cohorts of individuals increases over time as the cohorts age. This increase in average BMI has been based on current trends. Under the business-as-usual scenario, a limited number of supermarkets would continue to voluntarily limit the

³ Guidance for Traders on Pricing Practices, Chartered Trading Standards Institute, 2016.
<https://www.businesscompanion.info/sites/default/files/Guidance-for-Traders-on-Pricing-Practices-Apr-2018.pdf>

promotion of certain HFSS products and those not currently restricting promotions would be expected to continue doing so.

Other policies like the SDIL will continue to incentivise businesses to reformulate their products to reduce sugar intake.

Due to the considerable number of uncertainties which would need to be considered, the 'business as usual' scenario in this Impact Assessment does not attempt to quantify the future impact of the policies already announced or any other possible future actions by government. Furthermore, the interactions of implementing multiple policies at once are also not assessed under our estimates.

Option 1 – Restrict the 'value' promotion of products which contribute significant sugar and calories to children's diets, scoring 'less healthy' by NPM and which are of most concern for childhood obesity.

Under Option 1, retailers would be prevented from using value offers to promote HFSS products which contribute the most sugar and calories to children's diets and are of most concern for childhood obesity. A list of the product categories included in this option can be found in the glossary.

Including these products means the regulations are targeting the products that contribute the most sugar and calories to children's diets, while also reducing costs to business, and therefore represents a balanced and proportionate approach.

Option 2 – Restrict the 'value' promotion of products which score 'less healthy' by the Nutrient Profiling Model (NPM) and which are included within Public Health England's Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL).

Under Option 2, retailers would be prevented from using value promotion offers for any HFSS products included within Public Health England's Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL), in all retailers who sell food and drink in the retail sector excluding small and micro businesses. The full list of food and drinks included in this option are disclosed in glossary.

HFSS products within the above categories in scope would be defined using the 2004/5 Nutrient Profiling Model (NPM), which differentiates foods based on their nutritional composition (see glossary – HFSS Definition for more details). To assist retailers the Department of Health and Social Care would provide guidance and a methodology to help identify which products can or cannot be part of a volume promotion.

'Non-pre-packaged products' would be excluded from the policy. The regulation excludes these items since it may be impractical for businesses to assess the NPM score of these products when nutritional information is not available on pack. This is because businesses are not currently required to provide nutritional information for certain products which are sold loose⁷⁴.

Micro and small businesses are excluded from the restrictions, under options 1 and 2 unless they are part of a symbol group. A symbol group is seen as a large business with small and micro independent and multiple retailers trading under the symbol group who provide support to the retailers. Stakeholder engagement highlights that support could include having central standards and a shared marketing proposition, but independent and multiple retailers operating under a symbol group can still make their own buying and operational decisions. According to the Association of Convenience Stores (ACS), there are around 800 stores in Wales that are part of symbol groups and they make up 38% of total sales in the convenience sector.

Stores that exclusively sell HFSS goods, such as chocolatiers would be also be excluded.

We have defined Micro businesses as those with 10 or less full-time equivalent employees and small businesses are those with 11-49 full time equivalent employees.

These businesses are excluded because it is likely that the burden of complying with these regulations will be disproportionately high for these businesses.

There are likely to be various complexities in defining and implementing restrictions on price promotions. Our considerations in the following assume that these are successfully overcome.

Costs and benefits

The benefits of restricting value promotions for HFSS products are expected to accrue through:

- A reduction in excess purchases and calorie consumption, with a consequent reduction in obesity prevalence;
- A reduction in obesity related morbidity and mortality, resulting in reduced costs for the NHS, Social Care savings and an increase in economic output;
- A potential increase in consumption of healthier items, leading to further health benefits.

The main categories of costs to be considered are:

1. Transition costs associated with assessing products, understanding the regulation and distributing information to stores;
2. Transition costs for online business in familiarisation and making changes to websites
3. Ongoing costs associated with assessing new or reformulated products
4. Loss in profit to retailers because of reduced sales of HFSS food and drinks;
5. Loss in profit to manufacturers of HFSS food and drinks because of reduced sales.
6. Profit offset to retailers and manufacturers due to consumers compensatory behaviour and businesses using alternative marketing techniques.

The magnitude of the costs and benefits could be significantly influenced by wider factors. It is possible, for example, that consumers might adjust their consumption or purchasing

behaviour in response to consuming fewer calories. This type of behaviour change is a significant source of uncertainty in our analysis and could have a significant impact on the estimated net present value.

The figures presented are taken from a central estimate, which assumes that compensating behaviour by consumers and industry means that 40% of the calories removed from people's diets are replaced.

The net present values of the options are assessed over a period of 25 years. This is much longer than the typical 10-year assessment period used in impact assessments. Ill health related to being overweight or obese tends to develop later in life. Therefore, a longer period than usual has been chosen to ensure the benefits of these regulations are captured in our analysis.

In Option 2, the central estimates of the total net present value of costs to government and industry are around £15.3m. This is compared to total benefits of around £386m. Over 25 years, expected costs to retailers include total transition costs of £0.28m and lost profit of approximately £6.3m. Over this period, manufacturers of HFSS products would also experience total lost profits of around £10.6m while manufacturers of Non-HFSS products would gain profit of £2.4m.

Impact Assessments

Option 1 – Restrict the ‘value’ promotion of products in Wales which score ‘less healthy’ by NPM and which are of most concern for childhood obesity, in the retail sector excluding small and micro businesses.

Table 1: Summary of costs and benefits – Option 1 (£m)

Group affected	Impact	Central Estimate (40% Compensation)
Retailers	Transition - Familiarisation	-0.01
	Transition - HFSS Product Assessment	-0.06
	Transition - Knowledge Sharing	-0.09
	Transition - Changes to IT Systems	-0.12
	Transition - Sharing Information with staff (online businesses)	0.00
	On-going HFSS assessment	-0.38
	Lost Profit	-6.29
Total retailer Impact		-7.0
HFSS Manufacturers	Lost Profit - Retail Sales	-10.6
Total HFSS manufacturer Impact		-10.6
Non-HFSS Manufacturers	Lost Profit - Retail Sales	2.36
Total Non-HFSS manufacturer Impact		2.4
Government	NHS Savings	22.7
	Social Care Savings	26.7
	Familiarisation	-0.002
	Enforcement	-0.07
Total Government Impact		49.3
Wider Society	Health Benefits	301.14
	Economic Output	35.66
Total Wider Society Impact		336.8
NPV		371

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	Yes

The competition filter test conducted for this option indicates potential detrimental effects on suppliers in relation to the price they can offer for their products. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Option 2 – Restrict the ‘value’ promotion of products in Wales which score ‘less healthy’ by NPM and which are included within Public Health England’s Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL), in the retail sector excluding small and micro businesses.

Table 2: Summary of costs and benefits – Option 2 (£m)

Group affected	Impact	Central Estimate (40% Compensation)
Retailers	Transition - Familiarisation	-0.01
	Transition - HFSS Product Assessment	-0.06
	Transition - Knowledge Sharing	-0.09
	Transition - Changes to IT Systems	-0.12
	Transition - Sharing Information with staff (online businesses)	0.00
	On-going HFSS assessment	-0.38
	Lost Profit	-6.99
Total retailer Impact		-7.6
HFSS Manufacturers	Lost Profit - Retail Sales	-13.75
Total HFSS manufacturer Impact		-13.7
Non-HFSS Manufacturers	Lost Profit - Retail Sales	2.63
Total Non-HFSS manufacturer Impact		2.6
Government	NHS Savings	25.00
	Social Care Savings	29.30
	Familiarisation	-0.002
	Enforcement	-0.07
Total Government Impact		54.2
Wider Society	Health Benefits	330.20
	Economic Output	39.00
Total Wider Society Impact		369.2
NPV		405

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	Yes

The competition filter test conducted for this option indicates potential detrimental effects on suppliers in relation to the price they can offer for their products. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Post implementation review

A post implementation review should take place in 2026.

DRAFT REGULATORY IMPACT ASSESSMENT

PROPOSAL 2- PRODUCT PLACEMENT PROMOTIONS

Preferred option summary

The following table presents a summary of the costs and benefits for the preferred proposal as a whole. The table has been designed to present the information required under Standing Order 26.6 (viii) and (ix).

<i>Restrict the placement of high fat, sugar, and salt (HFSS) products that sit within the PHE programme categories and are of most concern for obesity at locations that encourage purchasing</i>		
Preferred option: Option 2: End placement of products which score 'less healthy' by Nutrient Profile Model 2004(NPM), which are included within Public Health England's Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL) and, are of most concern for childhood obesity (streamlined list), at store entrances, checkouts and end-of-aisles in the retail sector.		
Stage: Draft - Consultation	Appraisal period: 2022 - 2047	Price base year: 2022
Total Cost Total: £667m Present value: £433m	Total Benefits Total: £5,683m Present value: £4,506m	Net Present Value (NPV): £4,073m

Administrative cost

Costs: Trading Standards officers from 22 Local Authorities will need 3 hours of time to become familiar with the regulation and products to which it applies. We assume a small transitional cost and ongoing revenue costs to ensure regulations continue to be observed. It is assumed that Retail Outlets are visited every 3.5 years. 15 minutes of the visit is assumed to be spent reviewing adherence to these regulations.			
Transitional: £3k	Recurrent: £12k	Total: £0.3m	PV: £0.2m
Cost-savings: NA			
Transitional: £	Recurrent: £	Total: £	PV: £
Net administrative cost: PV £0.2m			

Compliance costs

Transitional compliance costs will be incurred by Retailers. These costs will comprise the time to get familiar with the new regulations, make assessments of which products will be in scope and communicating this information with staff. There will also be more significant costs associated with store planning as well as changes to IT systems.

Familiarisation costs assume 3 Manager hr x Avg Hourly Rate x No. of Outlets for micro & small businesses. Large & Medium business take 15 hrs at HQ for familiarisation and 1 Manager Hr to communicate to each outlet.

Product Assessment costs assume 30mins x Avg Hourly Rate x No of products.

Large & Medium Business – 4950 products, Small & Micro - 300

Distributing information to stores 1hr x Avg Hourly Rate x No of stores

Reorganisation of stores to replace HFSS items located in restricted locations is split between Planning and Re-Arranging. Planning costs are £0.75k for medium sized store and £4.5k for large sized stores (>3000sq. ft.). Re-arranging costs are assumed to be £275 per store.

IT Costs for making changes to Online Offerings assume 25 days x Avg Hourly rate x No of businesses.

Going forward there will be ongoing costs associated with assessing new or reformulated products.

Product Assessment costs assume products will be assessed every 2 years and results will be shared with the business. It will take 1h.

Transitional: £5.6m

Recurrent: 56k

Total: £7.5m

PV: £6.7m

Other costs

Retailers are expected to place products at locations which will maximise profits. Consequently, any restriction on their ability to do this is expected to reduce profit. DHSC have developed a methodology to assess the impact on retail sales & profits at checkout, end-of-aisle and store entrances. The impact is partially offset by increased sales of other products in these premium locations and increased sales of HFSS products from the aisles. Overall, retailers are likely to see sales revenues reduce by a net 3%. This will result in an annual net loss of £13m in profit in Wales.

HFSS Manufacturers who supply the Retailers will lose sales and therefore profits. This will be partially offset by gains for Non-HFSS Manufacturers. It assumes a net annual loss in profits of £5m for the manufacturers.

Transitional: £0

Recurrent: £21m

Total: £504m

PV:£326m

Reformulation: Manufacturers may reformulate products in order to promote them in restricted locations. The costs of reformulation could vary substantially from one product to another and have not been captured here.

Retailer/Manufacturer relationships: Commercial relationships between retailers and manufacturers can be complex and are beyond the scope of the calculations here.

Ingredient Suppliers: Lost profit for ingredient suppliers has not been monetised as it is a second order effect and it is possible that the impact could be caused by other factors.

Benefits

The expected NHS savings for Option 2 are estimated to be around £262m over the 25-year assessment period. Reduced morbidity would also result in reduced cost pressures to the NHS. There would be additional health benefits to the population from reinvesting these savings back into the NHS, these are estimated to be worth around £3,456m. Social care savings would amount to £294m and reduced premature mortality would be expected to deliver an additional £407m economic output through additional labour force participation.

Total: £5,549m

PV: £4,419m

Key evidence, assumptions and uncertainties

The main underlying evidence is from work done by the Childhood Obesity Team from the Department of Health and Social Care (DHSC) in developing Impact Assessments 13012⁴ and 9561². The principal assumption is that the methodology and assumptions that this work is built upon for England are equally valid in Wales. It is assumed that the Welsh results can be extrapolated by applying a factor of 6%. This is based on the relative population and NHS budgets in England and Wales.

The analysis is also based on the assumption that speciality businesses eg Chocolatiers are excluded from scope. As costs and benefits can be significantly influenced by a wide range of factors, consumers may adjust their consumption or purchasing behaviour in response to consuming fewer calories. The analysis is based on three scenarios that capture the range of response from zero compensation to 100% compensation. The central proposition is 40% compensation.

4

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770706/impact-assessment-restricting-checkout-end-of-aisle-and-store-entrance-sales-of-HFSS.pdf

Market Share and sales

The 'top ten' retailers account for 85% of Welsh grocery sales in the year ending 20/03/22. These market shares include the sales of some non-food and drink items such as health and beauty products. However, these are expected to be a reasonable reflection of shares within the food only market. In 2021, the Welsh food retail market is worth an estimated £6bn. This includes products bought both in store and online. The Pandemic has accelerated transformation of the food and grocery market with growth coming from discount stores and online offerings.⁵

Table 1: Wales Grocery Market Shares: 52 wks/e 20th March 2022⁶

Tesco	29.0%
Asda	15.2%
Morrisons	9.7%
Aldi	6.7%
Lidl	6.5%
Sainsbury's	6.2%
Bargain Stores	6.1%
Coop	4.4%
Iceland	3.1%
Waitrose	1.8%
M&S	2.6%
Independents & Symbols	1.6%
Internet	0.9%
Other outlets	6.2%
	100.0%

In order to calculate the number of stores in scope of the regulations, the sector has been split by the size of the businesses and size of store based on floor space. Table 2 & 3 shows the grocery retail sector split by size; micro (0-9 employees), small (10-49 employees), medium (50-249 employees) and large (over 250 employees), and by store size.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003920/impact-assessment-restricting-checkout-end-of-aisle-and-store-entrance-sales-of-HFSS.pdf

⁵ <https://www.igd.com/articles/article-viewer/t/uk-food-and-grocery-market-to-grow-10-by-2022/i/26531>

⁶ Kantar Total Wales Grocery | Retailer Share and Growth | 52 w/e 20th March 2022

Table 2: Estimated number of Grocery Businesses in Wales by size and floor space⁷

	1-999 sq ft	1000-1999 sq ft	2000-3000 sq ft	>3000 sq ft	
Micro	1,011	667	360	-	2,039
Small	100	66	35	-	201
Medium	-	-	14	-	14
Large	-	-	-	8	8
Total	1,111	733	410	8	2,261

Table 3: Estimated number of Grocery Outlets in Wales by size and floor space

6%	1-999 sq ft	1000-1999 sq ft	2000-3000 sq ft	>3000 sq ft	
Micro	1,150	590	223	-	1,963
Small	444	316	248	-	1,008
Medium	-	-	72	-	72
Large	360	329	94	515	1,298
Total	1,954	1,235	636	515	4,341

Introduction

The aim is to reduce overconsumption of HFSS products and also to encourage businesses to promote healthier products and to further incentivise reformulation.

Restricting the placement of HFSS food and drink products at key selling locations such as store entrances, checkouts and aisle ends in Wales is intended to:

- Reduce overconsumption of HFSS products likely to lead to excess calorie intake and, over time, weight gain while minimising the impact on food purchases that do not contribute to childhood obesity;
- Reduce pester power for parents and impulse purchases of HFSS products resulting from placement at prominent locations;
- Shift the balance of promotions towards healthier options and maximise the availability of healthier products that are offered on promotion, to make it easier for parents to make healthier choices when shopping for their families;
- Assist the wider childhood obesity strategy to reduce circumstances currently contributing to the obesogenic environment;
- Create a level playing field in which businesses that have voluntarily made progress are no longer penalised.

⁷https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1008423/impact-assessment-restricting-checkout-end-of-aisle-and-store-entrance-sales-of-HFSS.pdf

Options

Option 0 – Business as Usual (BAU)

This is the business-as-usual scenario against which all other options are compared. Option 0 assumes no changes in age-specific rates of overweight and obesity, but does assume that the average BMI of cohorts of individuals increases over time as they age. This increase in average BMI has been based on modelled estimates of current experiences. Under the do-nothing scenario, several supermarkets would continue to voluntarily limit the sales of certain HFSS products at checkouts, and those not currently restricting sales would be expected to continue doing so.

Other policies already in place like the voluntary sugar reduction programme and the SDIL will continue to incentivise businesses to reformulate their products to reduce sugar.

Due to the considerable number of uncertainties which would need to be considered, the do-nothing scenario in this IA does not attempt to quantify the future impact of the policies already announced or any other possible future actions by government.

Option 1 – End placement of products, in defined areas, which score ‘less healthy’ by NPM and which are included within Public Health England’s Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL)

Under Option 1, retailers would be prevented from placing HFSS food and drink products at store entrances, checkouts and end-of-aisles.

HFSS foods within the above categories in scope would be defined using the 2004/05 Nutrient Profile Model (NPM) (see glossary for more details).

A list of the product categories included in this option can be found in the glossary.

Specialist retailers who only sell a specific type of HFSS product that is within the categories in scope (e.g. sweets) would be excluded from the location restrictions, as it would be impractical for them to implement this policy and would likely lead to unmanageable disruption to their business.

Product placement in the out of home sector would be excluded. There are a number of practical barriers to this being applied in out of home food outlets. Firstly, as food in the out of home sector tends to be unpackaged, there would be practical challenges with calculating the NPM score of products, due to the lack of nutritional information on pack. Also, out of home food outlets do not have multiple aisles where they could move the items to, as food retailers do. For these reasons out of home food outlets were excluded.

Option 2 – End placement of products in defined areas which score ‘less healthy’ by NPM, which are included within Public Health England’s Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL) and, are of most concern for childhood obesity (streamlined list)

The same exclusions discussed above for Option 1 would also apply to Option 2.

Under Option 2, retailers would be prevented from placing HFSS food and drink products which contribute significant sugar and calories to children’s diets and are of most concern for childhood obesity, at store entrances, checkouts and end-of-aisles. A list of the product categories included in this option can be found in the glossary.

Using a streamlined list of products means the regulations are targeting the products that contribute significant sugar and calories to children’s diets, which reduces costs to business, and therefore represents a more proportionate approach.

Costs and benefits

The benefits of restricting promotions for HFSS products are expected to accrue through:

- A reduction in excess purchases and calorie consumption, with a consequent reduction in obesity prevalence;
- A reduction in obesity related morbidity and mortality, resulting in reduced costs for the NHS and an increase in economic output;
- A potential increase in consumption of healthier items, leading to further health benefits.

The main categories of costs to be considered are:

- Transition costs associated with assessing products and understanding the regulation;
- Loss in profit to retailers because of reduced sales of HFSS food and drinks;
- Loss in profit to manufacturers of HFSS food and drinks because of reduced sales.

The magnitude of the costs and benefits could be significantly influenced by wider factors. It is possible, for example, that consumers might adjust their consumption or purchasing behaviour in response to consuming fewer calories. This type of behaviour change is a significant source of uncertainty in the analysis and could have a significant impact on the estimated net present value. As a result, we first estimate the costs and benefits of each option based on no compensation and then adjust these figures to create a central scenario based on an assumption of 40% compensation.

The figures presented are taken from the central estimates, which assume that compensating behaviour by consumers and industry means that 40% of the calories removed from people’s diets are replaced.

The net present values of the options are assessed over a period of 25 years. This is much longer than the typical 10-year assessment period used in impact assessments. III

health related to being overweight or obese tends to develop later in life. Therefore, a longer period than usual has been chosen to ensure the benefits of these regulations are captured in our analysis.

In Option 2, the central estimates of the total net present value of costs to government and industry are around £433m. This is compared to total benefits of around £4,506m. Over 25 years, expected costs to retailers include total transition costs of £5.7m and lost profit of approximately £254m. Over this period, manufacturers of HFSS products would also experience total lost profits of around £179m while manufacturers of non-HFSS products would see a gain in profit of £87m.

Impact Assessments

Option 1 – End placement of products, in defined areas, which score ‘less healthy’ by NPM and which are included within Public Health England’s Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL)

Table 2: Summary of costs and benefits – Option 1 (£m)

Group affected	Impact	Central Estimate (40% Compensation)
Retailers	Transition - Familiarisation	-0.12
	Transition - Product Assessment	-1.2
	Transition - Distributing Information	-0.13
	Transition - Sharing Information with staff	-0.10
	Transition - Store Planning & Adjustment	-4
	Transition - Changes to IT systems	-0.5
	Transition - Sharing Information with staff (online businesses)	0.0
	Ongoing - Product Assessment	-1
	Net lost profit	-285
Total retailer Impact		-292
HFSS Manufacturers	Net lost profit	-241
Total HFSS Manufacturer Impact		-241
Other Manufacturers	Gained Profit	81
Total Non HFSS Manufacturer Impact		81
Government	NHS Savings	262
	Social Care Savings	294
	Trading Standards - Enforcement	-0.05
Total Government Impact		557
Wider Society	Health Benefits	3464
	Economic Output	408
Total Wider Society Impact		3872
NPV		3977

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	Yes

The competition filter test conducted for this option indicates potential detrimental effects on suppliers in relation to the location available for their products. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Option 2 – End placement of products in defined areas which score ‘less healthy’ by NPM, which are included within Public Health England’s Sugar Reduction Programme, Calorie Reduction Programme and Soft Drink Industry Levy (SDIL) and, are of most concern for childhood obesity (streamline list)

Table 3: Summary of costs and benefits – Option 2 (£m)

Group affected	Impact	Central Estimate (40% Compensation)
Retailers	Transition - Familiarisation	-0.12
	Transition - Product Assessment	-1.2
	Transition - Distributing Information	-0.13
	Transition - Sharing Information with staff	-0.10
	Transition - Store Planning & Adjustment	-3.7
	Transition - Changes to IT systems	-0.5
	Transition - Sharing Information with staff (online businesses)	0.00
	Ongoing - Product Assessment	-1.04
	Net lost profit	-247
Total retailer Impact		-254
HFSS Manufacturers	Net lost profit	-179
Total HFSS Manufacturer Impact		-179
Other Manufacturers	Gained Profit	87
Total Non HFSS Manufacturer Impact		87
Government	NHS Savings	262
	Social Care Savings	294
	Trading Standards - Enforcement	-0.03
Total Government Impact		556
Wider Society	Health Benefits	3456
	Economic Output	407
Total Wider Society Impact		3863
NPV		4073

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	Yes

The competition filter test conducted for this option indicates potential detrimental effects on suppliers in relation to the location available for their products. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

10. Post implementation review

A post implementation review should take place in 2026.

DRAFT REGULATORY IMPACT ASSESSMENT

PROPOSAL 3- CALORIE LABELLING

Preferred option summary

The following table presents a summary of the costs and benefits for the preferred proposal as a whole. The table has been designed to present the information required under Standing Order 26.6 (viii) and (ix).

<i>Mandating calorie labelling of food and drink in out-of-home settings</i>		
Preferred option: Option 1: Mandate calorie labelling of all food and drink items in all out-of-home settings, at the point of choice for businesses of all sizes.		
Stage: Draft - Consultation	Appraisal period: 2022 - 2047	Price base year: 2022
Total Cost Total: £43.5m Present value: £30.4m	Total Benefits Total: £912m Present value: £737m	Net Present Value (NPV): £707m

Administrative cost

Costs: Trading Standards officers from 22 Local Authorities will need 3 hours of time to become familiar with the regulation and products to which it applies. We assume a small transitional cost and ongoing revenue costs to ensure regulations continue to be observed. It is assumed that out-of-home outlets are visited every 3.5 years. 15 minutes of the visit is assumed to be spent reviewing adherence to these regulations.			
Transitional: £2k	Recurrent: £26k	Total: £0.7m	PV: £0.4m
Cost-savings: NA			
Transitional: £	Recurrent: £	Total: £	PV: £
Net administrative cost: PV £0.4m			

Compliance costs

Appraisal is over 25 years of policy implementation. Expected costs to out-of-home businesses include familiarisation and transition costs of £1.2m; transition costs associated with calculating the energy content of products of £2.8m and initial labelling costs of £2.9m.

Familiarisation costs assume 1 Manager hr x Avg Hourly Rate x No. of Outlets.
Chain outlets assume an additional 15 hrs for communication to branches.
Assumes it takes 25mins to calculate energy value of a recipe x Avg Hourly Rate x No of menu items
Assumes menu design cost of £135 per menu.

Transitional: £6.9m

Recurrent: £0

Total: £6.9m

PV: £6.9m

Other costs

There will be ongoing annual costs to out-of-home businesses of £1.2m per year in calculating the energy content of new and modified products. The ongoing use of a calorie calculator tool is expected to cost £75k per year.

Assumed cost of calorie calculator tool is £500 per Business per annum for large and medium businesses. Small & Micro businesses are assumed to use free tools.
Assumes 50 menu items per business with 20% being modified annually.

Transitional: £0

Recurrent: £1.3m

Total: £36m

PV: 23m

Unquantified costs and disbenefits

The impact on profit as a result of the policy has not been quantified due to the uncertainty around how this policy will affect sales, which will be dependent on consumer choice and whether businesses choose to reformulate. Depending on relative profit margins, out-of-home businesses may face a loss in profits from consumers switching between higher and less energy dense products within one establishment, or switching between establishments. If this policy affects the profitability to the point of destabilising micro or small businesses, it would have a magnified impact to micro and small business owners and employees. If businesses choose to reformulate there may be additional costs associated with this – although we expect businesses to do this only if it improves their profits.

As costs and benefits can be significantly influence by a wide range of factors, consumers may adjust their consumption or purchasing behaviour in response to consuming fewer calories. The analysis includes three scenarios to capture the range of response from zero compensation to 100% compensation. The central proposition is that there will be 40% behavioural compensation. Ie the measures will be 60% effective.

Benefits

Expected benefits are the health benefits that would accrue because of lower calorie consumption amongst overweight and obese children and adults directly due to labelling and reformulation – equivalent to £607m over the 25-year assessment period. There would be NHS savings worth £57m, and social care savings worth £63m. Economic activity through increased labour force participation would be expected to result in benefits worth £11m.

Total: £912m

PV: £737m

Key evidence, assumptions and uncertainties

The main underlying evidence is from work done by the Childhood Obesity Team from the Department of Health and Social Care (DHSC) in developing Impact Assessment 13009⁸. The principal assumption is that the methodology and assumptions that this work is built upon are equally valid in Wales. It is assumed that the Welsh results can be extrapolated by applying a factor of 6%. This is based on the relative population and NHS budgets in England and Wales.

Health benefits rely on fewer calories being consumed as a result of this policy. The evidence for labelling leading to a reduction in calorie intake is mixed but generally supportive. The analysis uses an American systematic review⁹ that suggests 81 fewer calories are consumed in the presence of contextual labelling. Due to the uncertainty around this evidence, given that is from North America, calories consumed and overall eating habits are different between the countries, and changes to the food offer, this calorie reduction is down-weighted by 50% to form the starting point for the evaluation of each policy option. Evidence of calorie labelling without contextual labelling is more mixed. Long-term health benefits require the direct impacts of the policy intervention to not be offset. Cost assumptions cover the energy values of menu items, labelling costs, and enforcement of the policy. A discount rate of 1.5% has been applied to health impacts, and 3.5% to all other monetised impacts. There is complexity in defining and implementing the policy; our considerations assume that these are successfully overcome.

⁸https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/992872/calorie-labelling-impact-assessment.pdf

⁹ Sinclair et al. (2014). The influence of menu labelling on calories selected or consumed: a systematic review and meta-analysis. *Journal of the Academy of Nutrition and Dietetics*, 114(9), 1375-1388

Introduction

The aim is to reduce overconsumption of HFSS products and also to encourage businesses to promote and offer healthier products

The mandating of out-of-home calorie labelling is intended to:

- Enable consumers to make informed and healthier choices for themselves and their families by providing energy information at the point of choice;
- Ensure energy information is provided in a consistent manner across all out-of-home settings, ensuring wider market penetration to increase consumer use, and consistent presentation of information aiding understanding;
- Encourage caterers to provide healthier options;
- Create a level playing field across the catering industry, removing disincentives for out-of-home businesses with a high proportion of energy dense products not to provide calorie labelling;
- Recognise and address the importance of the out-of-home sector to overall food consumption, and assist the wider obesity strategy to reduce circumstances currently contributing to the obesogenic environment.

Options

Option 0- Business as usual (BAU)

This is the business-as-usual scenario against which all other options are compared. Under the BAU scenario, the Welsh Government would take no more action than we are currently undertaking with industry to secure adoption of energy labelling at the point of choice.

Whilst some businesses are providing calorie information to consumers, this is not widespread and is not always provided at the point of choice. If left to itself, the sector is unlikely to provide information at the point of choice (the most influential point in the consumer decision-making process) in a consistent manner (which would aid consumer understanding and ability to compare products). It is also unlikely to achieve the level of market penetration required to ensure calorie information is routinely available for consumers to make informed healthier choices.

45 businesses signed the voluntary OOH energy labelling Responsibility Deal (RD) pledge. Based on the market share of these signatories, it is estimated that approximately three quarters of all meals served in the OOH sector do not currently carry energy labelling.

A Knai et. al. evaluation¹⁰ analysed the RD and included a specific section on the OOH pledge. It suggests that those businesses who had signed up to the RD committed to pledges they were already achieving or about to achieve. For OOH energy labelling, only 4% of signatories providing the labelling were judged as being motivated by the RD.

The evaluation also acknowledged that RD interventions, if implemented fully across all businesses, would have the desired impact.

Option 1 –Mandate calorie labelling at the point of choice across all out of home settings regardless of size

Regulation would cover all out-of-home settings including, but not limited to, restaurants, pubs, takeaways, street food, vending machines, contract caterers and public-sector locations (e.g., hospital canteens)

Energy information would be displayed at point of choice. Point of choice is defined to be close to the price and description or image of the product e.g., menus, menu boards, counter menus, shelf edges, menu leaflets, front of packaging (for self-service wrapped food), online (for takeaway businesses where you order online or view menus online), including for third-party sellers where menus are provided.

An additional statement of average daily energy requirement should also be displayed, e.g. "Reference intake of an average adult (8400kj/2000kcal)" or "Adults need around 8400kj/2000kcal a day". This is also known as contextual labelling and likely increases the effectiveness of the labels. Energy information would be provided per portion or consumption unit (e.g. per scoop), whatever is the most useful to the consumer. The portion or consumption unit used must be quantified. The exact labelling format will be informed by the consultation

Businesses would be able to use online applications or tools (some with free access, some with subscription costs) to calculate the number of calories in menu items by inputting ingredients and quantities from the recipe. There would be no obligation for businesses to use such a tool as long as they meet the requirements of the regulation.

It is proposed that enforcement costs are borne by the public sector. To enforce mandatory OOH energy labelling, businesses could be inspected on the presence and accuracy of their labelling, which would likely be carried out as part of pre-existing routine inspection visits of businesses conducted at Local Authority level. The consultation seeks views on the best way to enforce the policy.

There are likely to be various complexities in defining and implementing out-of-home labelling. Our considerations in the following assume that these are successfully overcome.

Option 2 – Mandate calorie labelling at the point of choice across all out of home settings excluding micro businesses

¹⁰ Knai et al. (2015) Has a public-private partnership resulted in action on healthier diets in England? An analysis of the Public Health Responsibility Deal food pledges <https://www.sciencedirect.com/science/article/abs/pii/S0306919215000391>

Option 2 is a variation on Option 1, exempting micro businesses (businesses with fewer than 10 employees)

This variation recognises that the burden of achieving compliance with the proposed regulations may be disproportionately high for micro businesses, and aims to mitigate the impact on these businesses.

Enforcement would be carried out in the same manner as for Option 1, with appropriate alterations for each variation.

Costs and benefits

The main categories of impact to be considered are set out below.

If the policy is successful, benefits may accrue through:

- encouraging the OOH sector to procure healthier ingredients and stock, reformulate/create new recipes which are less energy dense;
- encouraging the OOH sector to move to healthier preparation and cooking practices;
- increased awareness and understanding of the energy content of food enabling consumers to make more informed and healthier choices in OOH settings for themselves and their children;
- reduction in calories consumed OOH and subsequently obesity prevalence in children and adults;
- savings to the NHS through reduced treatment costs of obesity-related conditions such as type 2 diabetes, heart diseases and cancer;
- increased productivity and economic output;
- tackling the obesogenic environment and the normalisation of less healthy foods.

The main categories of costs to be considered are:

- the costs to businesses, including familiarisation costs, costs of calculating energy values for their food and drink items, and labelling costs;
- the cost borne by Government for enforcing the regulation.

The net present value of the policy is assessed over a period of 25 years. This is longer than the typical 10-year assessment period used in impact assessments. Ill health related to being overweight or obese tends to develop later in life, with the prevalence of type 2 diabetes, cardiovascular disease (CVD), stroke, breast cancer, and colorectal cancer all increasing with age. This means a shorter assessment period would be unlikely to capture many of the benefits than can accrue by reducing the prevalence of these diseases.

In Option 1, the central estimates of the total net present value of costs to government and industry are around £30m. This is compared to total benefits of around £737m. Over 25 years, expected costs to out-of-home sector businesses include transition costs of £1.2m and £23m of ongoing compliance costs.

Impact Assessments

Option 1 – Mandate calorie labelling at the point of choice across all out of home settings regardless of size [Preferred option]

The competition filter test conducted for this option does not indicate any potential detrimental effects on business competition. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Option 2 – Mandate calorie labelling at the point of choice across all out of home settings excluding micro businesses

Table 2: Summary of costs and benefits – Option 2 (£m)

Group affected	Impact	Present Value (£m)
Out of home businesses (including businesses whose sole purpose is not the provision of food and those selling on-the-go items)	Transition - Familiarisation with regulations	-0.210
	Product Assessment Tool	-1.24
	Initial Calculation of energy content of products	-0.53
	Calculating energy content of new and modified products	-4.48
	initial labelling and write off costs	-0.234
	Re-labelling costs	Unquantified
	Change in profits	Unquantified
Total Out-of-Home Business Impact		-6.7
Wider Society	Health Benefits	476
	Economic Output	8.28
Total Wider Society Impact		484
Government	NHS Savings	44.58
	Social Care Savings	49.3
	Enforcement	-0.163
Total Government Impact		94
NPV		571

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No

The competition filter test conducted for this option does not indicate any potential detrimental effects on business competition. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Post implementation review

A post implementation review should take place in 2026.

DRAFT REGULATORY IMPACT ASSESSMENT

PROPOSAL 4- SUGARY SOFT DRINKS

Preferred option summary

The following table presents a summary of the costs and benefits for the preferred proposal as a whole. The table has been designed to present the information required under Standing Order 26.6 (viii) and (ix).

<i>Reduce excess purchases and therefore overconsumption of Sugar Sweetened Drinks (SSD) which can lead to weight gain and, over time, obesity.</i>		
Preferred option: Option 2 – Restricting Free Refills and larger portion sizes for Sugar Sweetened Drinks in the Out of Home (OOH) sector		
Stage: Draft - Consultation	Appraisal period: 2021/22 - 2046/47	Price base year: 2021/22
Total Cost Total: £ Present value: £532k	Total Benefits Total: £ Present value: £8,517k	Net Present Value (NPV): £7,985k

Administrative cost

Costs: We assume it will take the 22 Local Authorities approximately 3 hours to become familiar with the regulation and update their policies. We assume Trading Standards officers will visit premises every two years and 15 minutes of their time will be spent on ensuring compliance with the regulations.			
Transitional: £3k	Recurrent: £26k pa	Total: £29k	PV: £437k
Cost-savings: NA			
Transitional: £	Recurrent: £	Total: £	PV: £
Net administrative cost: PV £437k			

Compliance costs

<ul style="list-style-type: none"> We assume a manager in each business will take 3 hours to read the Regulation at a cost of £27.30/hr We assume the manager will take an hour to brief 2 members of staff at each outlet with outlet staff costing £13.94/hr 			
Transitional: £99k	Recurrent: £0	Total: £99k	PV: £99k

Other costs

<p>Reduction in Sales and Profits for OOH Businesses:</p> <p>OOH Businesses that already offer free refills of low/zero sugar drinks will be able to continue under this proposal. These restrictions apply only to sugary soft drinks as defined by SDIL (Soft Drinks Industry Levy).</p> <p>Similarly the proposal to restrict portion sizes will be limited to sugary soft drinks as defined by SDIL.</p> <p>We would expect this policy to shift some customer's choices towards low/zero sugar drinks to take advantage of the free refills offer. For those that still wish to consume a sugary soft drink, they will be able to purchase these in single portions. Both changes in behaviour can be reasonably expected to reduce calories consumed from beverages¹¹ but without any impact on overall sales and profits.</p> <p>Reduction in Sales and Profits for Manufacturers / Suppliers:</p> <p>It is difficult to quantify any potential reduction in sales for manufacturers due to the unknown changes to consumption of no/low sugar drinks in replacement of the sugary drinks affected by this policy. It is likely that many consumers will switch to no/low sugar drinks to take advantage of the free refill promotions available, therefore resulting in a higher demand of no/low sugar drinks production. This should compensate for any reduction in sales of sugary drinks. Manufacturers will potentially face reformulation costs for their drinks but these are expected to be low as most have already reformulated due to SDIL.</p>			
Transitional: £	Recurrent: £	Total: £	PV: £

¹¹ England Government Impact Assessment: 'Restricting volume promotions for high fat, sugar, and salt (HFSS) products (9560)', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf (page 55)

Unquantified costs and disbenefits

Effective interventions will also need to consider industry attempts to circumvent the policy. For example, the agreement of confectionery manufacturers to phase out king size chocolate bars in 2005 led to the introduction of bars containing multiple portions, ostensibly for sharing or consuming at different times¹². Even if both proposals (portion size and restriction of free refills) are implemented simultaneously, the industry will look for ways to circumvent the policy, which could potentially become a significant disbenefit to the predicted calorie drop of this policy.

Benefits

The calculation of the benefits of each policy option is based on estimating the reduction in calories consumed per person in the OOH sector via sugary soft drinks. This policy is expected to cut the calorie consumption of visitors to full service and quick service restaurants where free refills are on offer for SSD's. To produce a figure for the estimated savings to the NHS of this policy, a calorie drop per person in the Welsh population is calculated, which came to 0.12kcal per day. The expected health benefits, increases in Economic output, NHS & social care savings for this are estimated using the DHSC Calorie Model to total around £8.5m. This is based on a 25 year estimate of long-term savings in the care needed for morbid obesity and other subsequent diseases that often follow. More detail on the DHSC Calorie model can be found in the glossary.

Total: £10,860k

PV: £8,517k

¹² 'Downsizing: policy options to reduce portion sizes to help tackle obesity' (BMJ, 2015), <https://www.bmj.com/content/bmj/351/bmj.h5863.full.pdf> (page 2)

Key evidence, assumptions and uncertainties

The size and structure of the OOH sector in Wales has been calculated using Kantar data.

It is unknown how many businesses are offering soft drinks above the portion size of a pint, but desk research deemed this to be very small.

It is unknown what level of free refills are being offered. 97 major outlets are identified in Wales and these are likely to have very high turnover that will exceed the sector average. The 15% estimate of restaurants does not have a strong evidence base.

It is estimated that the market value of sugar sweetened drinks, within the businesses in discussion, is £4.4m. These would be displaced with zero or low sugar drinks.

It is estimated that around 9.8m litres of sugar sweetened drinks were consumed in the OOH sector, and around 1.5m litres within the businesses under discussion. It can therefore be estimated that this number may reduce by 20.1% if the full policy is introduced, saving 0.3m litres of sugar sweetened beverages being consumed per year.

Introduction

The calculation of the benefits of each policy option is based on estimating the reduction in calories consumed per person in the OOH sector via sugary soft drinks. This is the target number to reduce, which in turn results in cost savings to the NHS, as well as healthier population which has many further benefits to society.

Options

Option 0- Business as usual (BAU)

This is the business-as-usual scenario against which all other options are compared. Option 0 assumes no changes in policy.

Option 1: Restrict Free Refills of Sugar Sweetened Drinks in the Out of Home (OOH) sector

This option would restrict businesses' ability to offer free refills of sugary drinks based on the Soft Drinks Industry Levy (SDIL) definition. Businesses are already familiar with what drinks fall into the SDIL and therefore complying with this new policy would be straightforward.

Free refills are only offered by a portion of the OOH market. Full-service and quick-service restaurants make up 33.6% of the OOH sector in Wales, and it is assumed that it is only businesses in these categories that are offering free refills.

It is unknown what proportion of businesses are offering refills so we have estimated that 15% of the 33.6% are actively using free refill promotions, which is 8.4% of the whole OOH sector. This is on the basis that the known businesses offering free refills tend to be larger.

Overall analysis in a study found when participants were offered free refills of all drink sizes, they consumed 20.1% more calories compared with the no refill groups¹³. Therefore, an assumption is made that this policy option would expect to deliver a 20.1% cut in calorie consumption of sugary soft drinks in the out of home sector estimated at 0.61kcal per person (See Appendix 2). Therefore, a 20.1% cut results in a 0.12kcal reduction per person, per day, bringing the average number of sugary soft drinks calories consumed in the OOH sector down to 12.02kcal. It is important to note, however, that by only introducing a restriction on free refills, businesses may circumvent the policy by increasing portion sizes to maintain the incentives for their customers, negating the effectiveness of this stand-alone policy. On this basis, we assume that the policy is only 50% effective and that the overall drop in calories is reduced to 0.06kcal per person per day.

Option 2: Restrict Free Refills and larger portion sizes of Sugar Sweetened Drinks in the Out of Home (OOH) sector

The literature notes the importance of restricting portion sizes in conjunction with the free refill restriction. If only one of the two proposals is implemented, it can be assumed that businesses will capitalise on the freedom to incentivise customers in other ways. Firstly, if unlimited refills only are restricted, businesses will offer larger portions at seemingly better value to the customer, whilst also being more profitable for the business due to economies of scale. Secondly, if larger portions are restricted, businesses will advertise unlimited refills of smaller portion sizes to attract the customer into a good value for money purchase¹⁴. Therefore, restricting portion sizes alongside restricting free refills will be required to achieve greater effectiveness.

¹³ The State University of New Jersey, 'Evaluating a Public Health Policy: The Effect of a Sugar-Sweetened Beverage Portion Cap on Food and Beverages Purchased, Calories Consumed and Consumer Perception', <https://rucore.libraries.rutgers.edu/rutgers-lib/64657/PDF/1/play/> (page 211)

¹⁴ PLoS One, 'Regulating the Way to Obesity: Unintended Consequences of Limiting Sugary Drink Sizes', <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3622664/pdf/pone.0061081.pdf>

This option combines the benefits of the two previous options. The no refills restriction was estimated to save 0.12kcal per person, per day. However, this would only be the case if portion sizes are restricted too, stopping businesses from swapping their free refill incentives to significantly higher portion sized drinks. With both policies introduced, we estimate it would save an estimated 0.12kcal per person, per day, in the Welsh population. This would see the current 12.14kcal reduce to 12.02kcal.

The DHSC calorie model is used to calculate the monetised benefits of reduced calories on health based on findings in the English impact assessments.

Costs and benefits

Administrative Costs

It is assumed that assessing compliance with this policy will require local authorities to visit qualifying businesses alongside food hygiene inspections, to check their free refill offers and whether any of the SDIL drinks are available. Further to this, portion sizes will need to be checked, to ensure they are not over the pint (568ml) limit should this be introduced.

Assuming outlets are visited every 2 years, we estimate there will be 2,608 visits per year based on the number of outlets in Wales of 5,215. We estimate the additional time required at each outlet for paperwork-based checks is 15 minutes per inspection. By multiplying visits by time required and the uprated hourly wage of £40.01 for Trading Standards Office (TSO), we estimate that total staff costs for enforcement in outlets are around £26k per annum¹⁵.

Assuming familiarisation and dissemination of information to other TSOs will take a total of three hours per Local Authority¹⁶, we estimate that familiarisation costs for all 22 Local Authorities would be around £3k.

Compliance Costs

The OOH businesses affected by the restrictions would not face any additional product assessment costs. The drinks subject to the free refill restrictions are proposed to be only

¹⁵ England Government Impact Assessment: 'Restricting volume promotions for high fat, sugar, and salt (HFSS) products (9560)', Section 303 + 304 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf (page 57)

¹⁶ England Government Impact Assessment: 'Restricting volume promotions for high fat, sugar, and salt (HFSS) products (9560)', Section 304 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf (page 57)

the drinks in scope of the SDIL. Therefore, businesses that currently offer free refills would already understand if the sugar sweetened drinks sold are in scope of the SDIL¹⁷.

All the figures below were derived from two sources: English Impact Assessment 9560¹⁸ and Appendix 1.

A cost to businesses that offer free refills will be the time to familiarise themselves with the regulations and distribute the information to outlets. We assume that each business will have one manager who is responsible for understanding the regulations and making their outlets aware of the changes. We assume this will take 3 hours on average, due to the varying size of businesses. Using the median hourly wage rate for a manager, uplifted by 30% to account for non-wage labour costs, the rate is £27.30. We identify large chains offering refills and estimate 97 outlets in Wales. Examples include Five Guys, Toby Carvery, and some Subways. We allow an estimate of 15% of businesses within the classification SIC 5610 offering free refills. Therefore, this brings the total familiarisation costs to £56,081 for the 685 businesses under discussion in Wales.

It is also be assumed that every outlet will also have 2 employees in addition to the manager responsible for understanding the regulations. We assume the employees will be briefed by the store manager, taking an hour of each employees and manager's time. It is estimated that the uplifted hourly rate for the employees is £13.94. This totals at £77,252 ($27.30 + 13.94 + 13.94 \times 782$ outlets).

The total estimated compliance costs for the OOH businesses that offer free refills is £99,239.

Other Costs

Reduction in Sales and Profits for OOH Businesses:

Businesses that currently offer free refills already include low/zero sugar drinks. OOH businesses will still be able to offer free refills of these drinks. We would expect this policy to shift some customer's choices towards low/zero sugar drinks to take advantage of the free refills offer. For those that still wish to consume a sugary soft drink, they will be able to purchase these in single (size limited) portions. Both changes in behaviour can be

¹⁷ England Government Impact Assessment: 'Restricting volume promotions for high fat, sugar, and salt (HFSS) products (9560)', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf (page 55)

¹⁸ England Government Impact Assessment: 'Restricting volume promotions for high fat, sugar, and salt (HFSS) products (9560)', Section 293 - 300 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf (page 56)

reasonably expected to reduce calories consumed from beverages¹⁹ but without any impact on overall sales and profits.

Reduction in Sales and Profits for Manufacturers / Suppliers:

It is difficult to quantify any potential reduction in sales for manufacturers due to the unknown changes to consumption of no/low sugar drinks in replacement of the sugary drinks affected by this policy. It is likely that many consumers will switch to no/low sugar drinks to take advantage of the free refill promotions available, therefore resulting in a higher demand of no/low sugar drinks production. This should compensate for any reduction in sales of sugary drinks. Manufacturers will potentially face reformulation costs for their drinks but these are expected to be low as most have already reformulated in anticipation of the SDIL.

Impact Assessments

Option 1 – Restrict Free Refills of Sugar Sweetened Drinks in the Out of Home (OOH) sector

Table 1: Summary of costs and benefits – Option 1 (£'000's)

Group affected	Impact	£'000's
Out of Home Businesses: Full Service & Quick Service Restaurants	Transition - Familiarisation	-56
	Transition - Knowledge Sharing	-43
	Lost Profit	0
Total Business Impact		-99
Government	NHS Savings	251
	Social Care Savings	295
	Familiarisation	-3
	Enforcement	-430
Total Government Impact		113
Wider Society	Health Benefits	3320
	Economic Output	393
Total Wider Society Impact		3,713
NPV		3,727

¹⁹ England Government Impact Assessment: 'Restricting volume promotions for high fat, sugar, and salt (HFSS) products (9560)', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003921/impact-assessment-for-restricting-volume-promotions-for-HFSS-products.pdf (page 55)

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No

The competition filter test conducted for this option does not indicate any potential detrimental effects on business competition. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Option 2 - Restrict Free Refills and larger portion sizes of Sugar Sweetened Drinks in the Out of Home (OOH) sector

Table 2: Summary of costs and benefits – Option 3 (£'000's)

Group affected	Impact	£'000's
Out of Home Businesses: Full Service & Quick Service Restaurants	Transition - Familiarisation	-56
	Transition - Knowledge Sharing	-43
	Lost Profit	0
Total Business Impact		-99
Government	NHS Savings	502
	Social Care Savings	590
	Familiarisation	-3
	Enforcement	-430
Total Government Impact		659
Wider Society	Health Benefits	6640
	Economic Output	785
Total Wider Society Impact		7,425
NPV		7,985

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No

The competition filter test conducted for this option does not indicate any potential detrimental effects on business competition. Further consideration will be paid to this and a full competitive assessment conducted if deemed necessary following the initial consultation.

Post implementation review

A post implementation review should take place in 2026.

GLOSSARY

HFSS Definition

There are several possible ways of assessing the nutritional content of food. For the purposes of this IA, it has been assumed that the healthiness of products will be defined using the Food Standards Agency's 2004/5 Nutrient Profiling Model (NPM)³.

The NPM was developed by the FSA to provide Ofcom, the broadcast regulator, with a tool to differentiate foods on the basis of their nutritional composition. Ofcom uses the outputs from the model to regulate the television advertising of foods to children.

It scores foods based on their nutritional content. The nutrients considered are split into two categories – A and C. The score for 'C' nutrients is subtracted from the score for 'A' nutrients to give the final score. A higher score indicates a more HFSS product.

'A' nutrients consist of energy, saturated fat, total sugar and sodium. 'C' nutrients consist of fruit, vegetables and nut content, fibre and protein. Therefore, a food scoring highly on 'A' nutrients is not automatically classified as HFSS, only if it additionally scores little on 'C' nutrients.

Foods scoring 4 or more points, or drinks scoring 1 or more points, are classified as "less healthy". These 'less healthy' products provide the definition for HFSS products used here.

All food and drink are scored, there are no exemptions.

Calculations

There are three steps to working out the score: calculating 'A' points, calculating 'C' points and combining these into an overall score.

Calculating 'A' points

Total 'A' points are calculated by the following formula: (points for energy) + (points for saturated fat) + (points for sugars) + (points for sodium). The points for each nutrient are determined based on the amount of each per 100g of the food or drink, according to Table B.1 below.

³ <https://www.gov.uk/government/publications/the-nutrient-profiling-model>

Table B.1 Points scored by 'A' category nutrients per 100g

Points	Energy (kJ)	Sat Fat (g)	Total Sugar (g)	Sodium (mg)
0	≤335	≤1	≤4.5	≤90
1	>335	>1	>4.5	>90
2	>670	>2	>9.0	>180
3	>1005	>3	>13.5	>270
4	>1340	>4	>18.0	>360
5	>1675	>5	>22.5	>450
6	>2010	>6	>27.0	>540
7	>2345	>7	>31.0	>630
8	>2680	>8	>36.0	>720
9	>3015	>9	>40.0	>810
10	>3350	>10	>45.0	>900

A maximum of ten points can be awarded for each nutrient. Calculating 'C' points

Total 'C' points are calculated by the formula: (points for %fruit, veg and nut content) + (points for fibre [either NSP or AOAC]) + (points for protein). The points for each nutrient are determined based on the amount of each nutrient per 100g/percentage nutrient component of the food or drink, according to Table B.2 below.

Table B.2 Points scored by 'C' category nutrients per 100g

Points	Fruit, Veg and Nuts (%)	NSP Fibre ^a (g)	or AOAC Fibre ^a (g)	Protein ^b (g)
0	≤40	≤0.7	≤0.9	≤1.6
1	>40	>0.7	>0.9	>1.6
2	>60	>1.4	>1.9	>3.2
3	-	>2.1	>2.8	>4.8
4	-	>2.8	>3.7	>6.4
5	>80	>3.5	>4.7	>8.0

- NSP fibre information should be used if possible. However, if this is not available then AOAC fibre information should be used.
- If a food or drink scores 11 or more points for 'A' nutrients then it cannot score points for protein unless it also scores 5 points for fruit, vegetables and nuts.

A maximum of five points can be awarded for each nutrient/food component. Note the restrictions on points for protein.

Overall score for a food is dependent on how many 'A' points it scores and how many points for fruit, vegetables, and nuts it scores. There are three possible situations;

Less than 11 'A' points

If a food satisfies this criterion then the overall score is calculated as follows:

Total 'A' points minus total 'C' points = (energy + sat fat + sugars + sodium) – (fruit, vegetables, and nuts + fibre + protein)

11 or more 'A' points and 5 points for fruit, vegetables and nuts

If a food satisfies this criterion then the overall score is calculated as the above case.

11 or more 'A' points and less than 5 points for fruit, vegetables and nuts

If a food satisfies this criterion then the overall score is calculated as follows:

Total 'A' points minus points for fruit, vegetables and nuts and points for fibre = (energy + sat fat + sugars + sodium) – (fruit, veg and nuts + fibre)

Note that in this case foods are not allowed to score for protein.

Product Categories in Scope for Consultation

Option 1

Soft drinks

Chocolate confectionery

Sugar confectionery

Cakes

Ice cream

Morning goods (pastries)

Puddings and dairy desserts

Sweet biscuits

Breakfast cereals

Yogurts

Milk based drinks with added sugar

Juice based drinks with added sugar

Pizza

Crisps and savoury snacks

Ready meals and meal centres
(e.g. burgers, chicken nuggets,
breaded chicken/fish)

Chips and potato products

Garlic bread

Pies and quiches

Savoury biscuits crackers and
crispbreads

Cooking sauces and pastes

Table sauces and dressings

Processed meat products

Option 2

Soft drinks

Chocolate confectionery

Sugar confectionery

Cakes

Ice cream

Morning goods (pastries)

Puddings and dairy desserts

Sweet biscuits

Breakfast cereals

Yogurts

Milk based drinks with added sugar

Juice based drinks with added sugar

Pizza

Crisps and savoury snacks

Ready meals and meal centres
(e.g. burgers, chicken nuggets,
breaded chicken/fish)

Chips and potato products

Pasta /rice/ noodles with added
ingredients and flavours
Prepared dips and composite
salads as meal accompaniments

Egg products /dishes

Sweet spreads

Starters, smaller dishes, sides etc

Products included in the Soft Drinks Industry Levy and the Calorie and Sugar Reduction Programmes

Soft Drinks Industry Levy

In 2016, the UK Government announced the introduction of the Soft Drinks Industry Levy to help reduce children's sugar intakes by encouraging manufacturers to reformulate their drinks. The levy came into effect on the 6th of April 2018.

A drink is liable for the Soft Drinks Industry Levy if it meets all of the following conditions:

- It has had sugar added during production, or anything (other than fruit juice, vegetable juice and milk) that contains sugar, such as honey
- It contains at least 5 grams (g) of sugar per 100 millilitres (ml) in its ready to drink or diluted form
- It is either ready to drink, or to be drunk it must be diluted with water, mixed with crushed ice or processed to make crushed ice, mixed with carbon dioxide, or a combination of these
- It is bottled, canned or otherwise packaged so it is ready to drink or be diluted
- It has a content of 1.2% alcohol by volume (ABV) or less

A detailed list of what is classed as sugar for the purposes of the levy can be found in the guidance published by HM Revenue & Customs²⁰.

The levy doesn't apply to drinks that are:

- At least 75% milk
- A milk replacement, like soya or almond milk
- An alcohol replacement, like de-alcoholised beer or wine
- Made with fruit juice or vegetable juice and don't have any other added sugar
- Liquid drink flavouring that's added to food or drinks like coffee or cocktails
- Infant formula, follow on formula or baby foods
- Formulated food intended as a total diet replacement, or dietary food used for special medical purposes

Calorie Reduction Programme

On average, both children and adults are consuming too many calories on a regular basis. Amongst the government's commitments in the *Childhood obesity: a plan for action* was for Public Health England to lead a structured and closely monitored programme to improve every day food and drink. As part of this Public Health England developed the calorie Reduction Programme to encourage manufacturers to revise and reformulate their products to lower the number of calories they contain.

²⁰ <https://www.gov.uk/guidance/check-if-your-drink-is-liable-for-the-soft-drinks-industry-levy>

The list of product categories to be included within the calorie reduction programme will be confirmed after engagement with stakeholders. However, Public Health England have indicated that the following product categories will be included in the programme:

- Bread with additions (e.g. olives, cheese etc.)
- Crisps and savoury snacks
- Savoury biscuits, crackers and crispbreads
- Potato Products (e.g. chips, croquettes, mashed potato etc.)
- Sausages (raw and cooked) and sausage meat products, frankfurters, hotdogs and burgers
- Meat, fish and vegetarian pastry pies and other pastry products
- Cooking sauces and pastes
- Table sauces and dressings
- Pasta/ rice/ noodles with added ingredients and flavours
- Ready meals with carbohydrate accompaniment (potato, rice, noodles, pasta, etc.) – fish, meat and meat alternatives
- Meal centres without carbohydrate accompaniment (potato, rice, noodles, pasta, etc.) – fish, meat and meat alternatives
- Prepared dips and composite salads as meal accompaniments (e.g. coleslaw, potato salad, guacamole, salsa etc.)
- Pizza
- Egg products/ dishes (e.g. quiche)
- Food to go e.g. sandwiches boxed main meal salads etc.

These products have been included because they contribute significantly to children's calorie intakes and there is scope for substantial reformulation and/ or portion size reduction. A more detailed list of products and the reformulation targets can be found in the guidance published by Public Health England²¹.

²¹ <https://www.gov.uk/government/publications/calorie-reduction-the-scope-and-ambition-for-action>

Sugar Reduction Programme

A further commitment in the *Childhood obesity: a plan for action* was to launch a broad structured sugar reduction programme to remove sugar from everyday products. All groups of the population, particularly children, are consuming far too much sugar. This increases the risk of excess calorie consumption and weight gain, which, over time, can lead to obesity.

The sugar reduction programme challenges manufacturers to revise and reformulate their products to reduce the amount of sugar they contain. A list of product categories included in the programme is below:

- Breakfast cereals
- Yoghurt and fromage frais
- Biscuits
- Cakes
- Morning goods
- Puddings
- Ice cream
- Sweet confectionary
- Chocolate confectionary
- Sweet spreads
- Milk based drinks and fruit juices

These products have been included because they contribute significantly to children's sugar intakes. Again, a more detailed list of the products included in the scheme and the reformulation targets can be found in the guidance published by Public Health England²².

²² <https://www.gov.uk/government/collections/sugar-reduction>

DHSC Calorie Model

The DHSC Calorie Model is a model implemented in Microsoft Excel. The model uses a yearly iterative approach to estimate the impact of policies on representative examples of the population, i.e. the effects are modelled for every year following the implementation of a reduction in calorie imbalance.

The impacts of the calorie reduction are modelled using a control and a treatment scenario: the control scenario is modelled each year assuming no policy implementation, while the treatment scenario models the effects seen by a calorie imbalance reduction.

The chosen period for assessing the impact of a calorie reduction was 25 years. This decision was a pragmatic one, principally because this is long enough to show significant health benefits from the policies in question. In fact, annual benefits would continue to rise beyond 25 years, so the net present value of these policies would increase further as more years are added to the model. However there is also growing uncertainty as the time increases, so 25 years was considered a reasonable compromise between these opposing factors. Two scenarios are generated for each population: a control scenario with no calorie reduction, and a treatment scenario which implements the calorie reduction.

Early results from modelling children and adults together and comparing it to modelling adults only showed that, in a 25 year period, the health benefits are predominantly in adulthood. As most impacts on children's health resulting from obesity occur later in life (the exception is diabetes, but this is still significantly less prevalent than adult diabetes: adult diabetes prevalence in the UK is 4%, while childhood diabetes prevalence is 0.1% for type 1 diabetes, and much less for type 2 diabetes [1]), it was decided that, in modelling terms, it was preferable to only include the impact during adulthood. This simplified the model significantly without compromising its quality. While impacts are not modelled in childhood, benefits for today's children are modelled when they become adults.

The cohorts consist of adults grouped into two age groups: 19-64 and 65-79 years, and children in two age groups: 4-10 and 11-18 years. Each population contains a male and female group, which are further grouped based on their body mass index (BMI) as overweight (BMI of 25-30), obese (BMI of 30-40), and morbidly obese (BMI of 40+). Each group is assigned the mean weight and height in order to calculate the mean BMI. The BMI groups are justifiable because it has been found that the risk of 5 major conditions (diabetes, coronary heart disease, stroke, colorectal cancer, breast cancer) can be reasonably approximated to being linear with BMI from a BMI level of 22 onwards. This means, even though the distribution of weight loss would vary from individual to individual, the overall benefits would be the same as if all individuals had the same size of benefit. This finding is also of particular importance because it means the health benefits of multiple policies that impact individuals' calorie intakes can be added together. It is assumed that reductions in calorie intake have minimal impact on the health of healthy weight and underweight people and these groups are therefore excluded.

Impact of promotions on sales and profits Impact of price cuts and multi-buy promotions on sales

Public Health England commissioned Kantar Worldpanel to investigate the role that price promotions play in stimulating changes in purchasing levels, specifically for foods and drink containing high levels of sugar²³. This study examined Kantar Worldpanel's representative sample of 30,000 British households over 2 years up to the 30th December 2018.

It should be noted that only price promotions occurring in the 'Big Four' supermarkets – Tesco, Asda, Sainsbury and Morrison's were included in this analysis. As a result, this assessment refers only to a subset of the overall retail market. Together, these four supermarkets comprise approximately 68% of the grocery market²⁴.

The Kantar Worldpanel data splits price promotions into temporary price reductions (TPR), multi- buy and extra free. Regarding the types of promotions discussed earlier, multi-buy in the Kantar Worldpanel data covers multi-buys, combination offers and linked offers, which are all forms of volume offers. Temporary price restrictions cover was/nor prices and after promotion or introductory price offers. Extra free is a promotion that occurs when an enlarged pack size is created by the manufacturer, and where the label states that a proportion of the product is free. These promotions are far less common and account for less than 1% of total grocery spend and is therefore not separated out into individual promotional mechanisms.

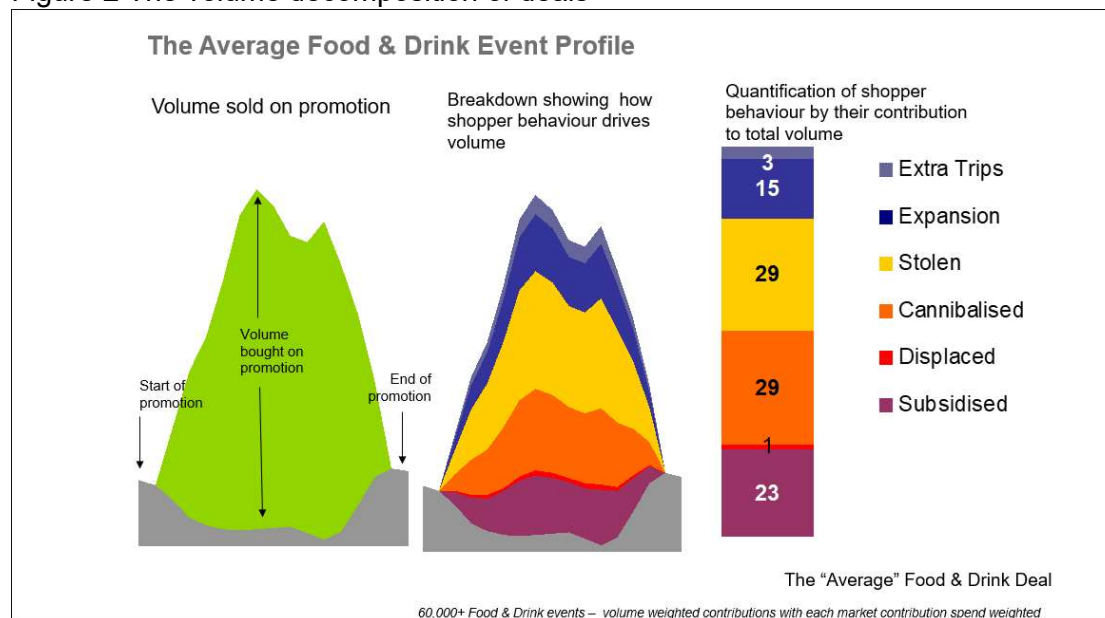
Analysis from the Kantar Worldpanel data suggests that the impact of price promotions is inherently short term. Promotions generate short term uplifts in sales by encouraging promotionally motivated shoppers to participate. In effect, promotions are a means of buying market share amongst promotionally sensitive shoppers. These effects are always short term, in the sense that the sales uplift falls away as soon as the promotion ends, leaving a brand selling at the same levels seen prior to the promotion. In the Fast-Moving Consumer Good (FMCG) marketing environment this fact is not always well understood and there are plenty of myths about the desired role of promotions in convincing shoppers to switch brands permanently after a discounted trial. Numerous promotional studies undertaken by Kantar Worldpanel in a wide range of categories have provided no reliable evidence to support this view.

²³ An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, a research project for Public Health England conducted by Kantar Worldpanel UK, 2020. Available here: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>
It is an update of Sugar Reduction: The evidence for action - Annexe 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, Public Health England, 2015.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/470175/Annexe_4_Analysis_of_price_promotions.pdf

²⁴ Grocery Market Share, Kantar Worldpanel, 2019. <https://www.kantarworldpanel.com/en/grocery-market-share/great-britain>

As it does not appear that price promotions have any long-term effects on price, it is important to assess the impact that promotions have on short terms sales uplifts. Figure 2 below displays the estimated breakdown in uplifted sales volumes during a price promotion, as estimated by Kantar Worldpanel.

Figure 2 The volume decomposition of deals²⁵



The constituent classifications are defined as:

- *Subsidised* – represents the volume of the promoted product that shoppers would have been expected to buy at the time of the promotion, in the same store, irrespective of whether there was a promotion or not.
- *Displaced* - is the volume of the product that would have been purchased in subsequent weeks in the same store. These purchases have been brought forward.
- *Cannibalised* - is the volume that would have come from sister products within the promoting manufacturers' portfolio e.g. swapping between flavours within the same brand.
- *Stolen* – represents the volume that is taken from competitor products e.g. Pepsi stealing sales from Coca Cola.
- *Expansion* - represents growth from faster than expected return times to the category after a shopper participates in a promotion. This expansion effect is caused by shoppers purchasing above average quantities of the category that is then not fully offset by delayed repurchase.

²⁵ An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, a research project for Public Health England conducted by Kantar Worldpanel UK, 2020. Available here: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>
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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/470175/Annexe_4_Analysis_of_price_promotions.pdf

- *Extra Trips* - are unexpected purchases that appear to have been motivated by the promotion.

The resulting volume breakdown shows that most of the volume under the sales spike is a result of shoppers shifting purchasing from competing products whether owned by the promoting manufacturer or otherwise. This data shows that 58% (Adding Cannabilised and stolen classifications) of the volume bought on promotion is accounted for by product switching, with a further 24% either being subsidised or brought forward consumption. The remaining 18% of sales volume represent the net growth in sales from volume that would not have been purchased if not for the promotion.

It is important to consider that this data is unable to directly establish if this incremental volume is being consumed but in the case of food and drink, we assume that a significant proportion of this will be. Increased amounts of product kept in stock in the home and higher food wastage (especially on short shelf life items) are also further explanations to consider.

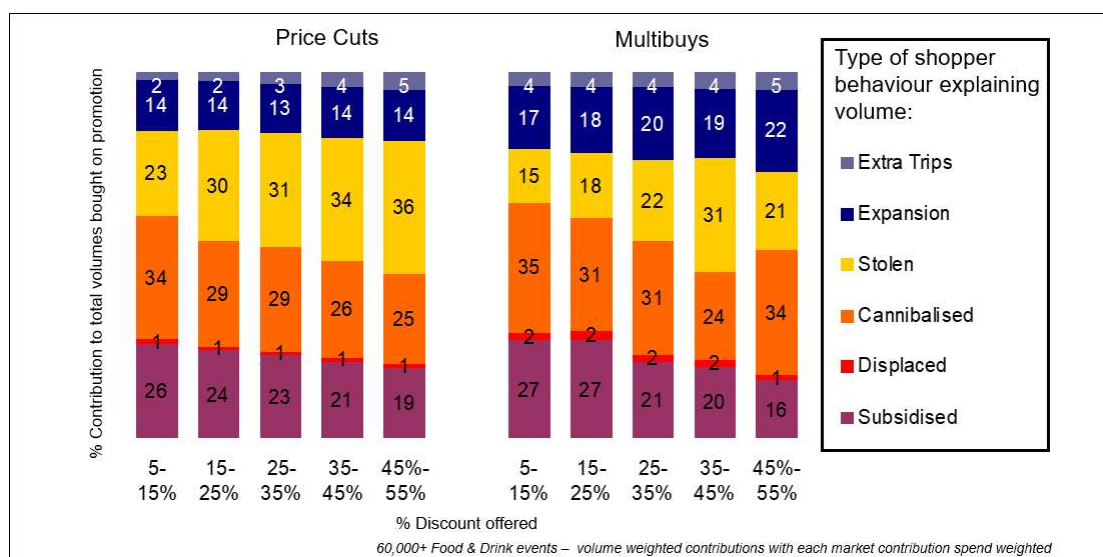
While this clearly displays uplifted sales within product categories, it is possible that consumers respond by reducing consumption of goods from other categories. To examine this, Kantar assessed the correlation between sales volumes of competing and complementary product categories. Overall, positive correlations were found between different categories of high sugar products, for example chocolate confectionary and sugar confectionary. In contrast, negative correlations were more often found between 'unhealthier' products such as chocolate and those with healthier characteristics such as fruit and salad.

Based on this analysis, it appears unlikely that, for products with high sugar content, the uplift in sales generated by price promotions would be offset by a reduction in sales of other products with high sugar content.

Figure 3 displays the estimated breakdown in uplifted sales volume during price cuts and multi- buys, split by the size of discount offered.

Figure 3 Promotional volume percentage decomposition by type of price promotion and size of discount²⁶

²⁶ An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, a research project for Public Health England conducted by Kantar Worldpanel UK, 2020. Available here: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>
It is an update of Sugar Reduction: The evidence for action - Annexe 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, Public Health England, 2015.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/470175/Annexe_4_Analysis_of_price_promotions.pdf



The data indicates that for both types of promotion, as the size of the discount increases, so does the proportion of sales that are extra trips or expansion (i.e. additional sales to the product category). Furthermore, multi-buys result in a greater proportion of additional sales than temporary price cuts. This is expected, as consumers are required to purchase additional quantities of the product to benefit from the discount.

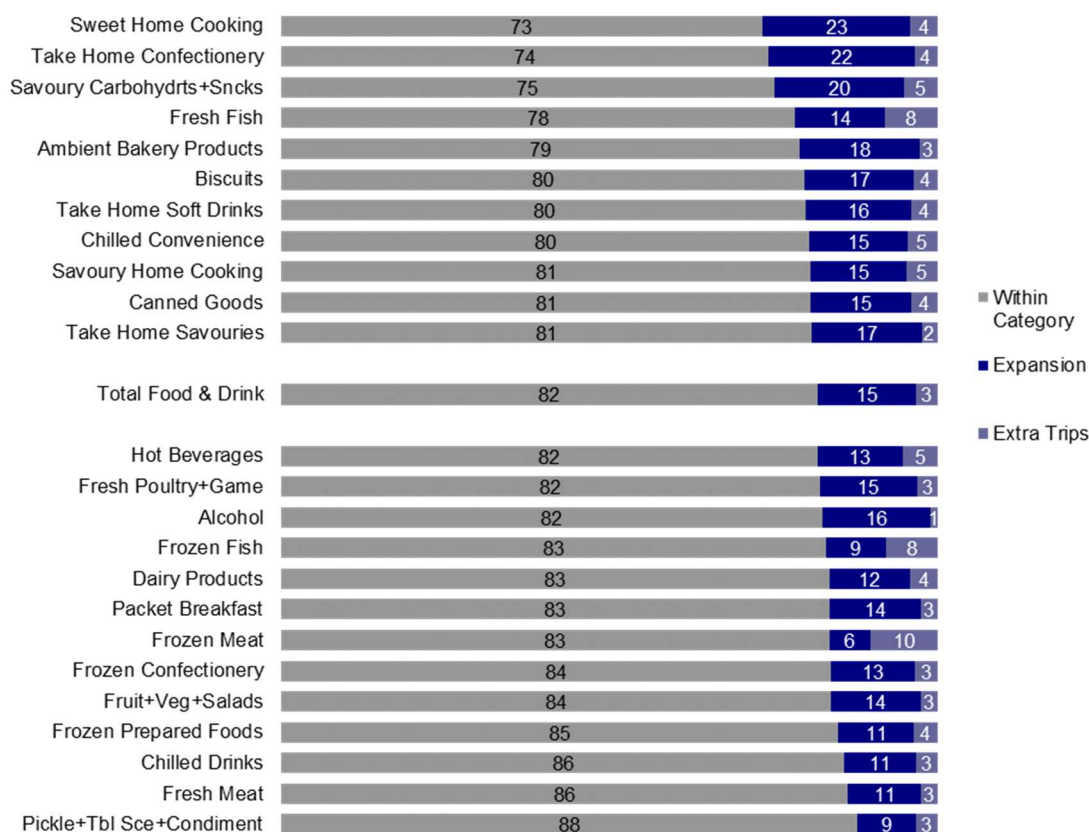
Figure 4 shows how incremental volumes amongst higher sugar categories tend to be proportionally greater where products are more discretionary or more treat and special occasion oriented. Notable categories are confectionery, soft drinks and bakery. This is supported by evidence from Scotland, which found that “discretionary, less healthy food and drink categories are more frequently purchased on promotion compared to the staple, healthier categories”²⁷.

Figure 4 Category incremental proportions for promotions on higher sugar categories²⁸

²⁷ Foods and drinks purchased into the home in Scotland using data from Kantar Worldpanel, Food Standards Scotland, 2016.

http://www.foodstandards.gov.scot/downloads/Food_and_Drinks_Purchased_into_The_Home_in_Scotland_report.pdf

²⁸ An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, a research project for Public Health England conducted by Kantar Worldpanel UK, 2020. Available here: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>
It is an update of Sugar Reduction: The evidence for action - Annexe 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, Public Health England, 2015.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/470175/Annexe_4_Analysis_of_price_promotions.pdf



Such categories tend to have run promotions that have been more incremental as drivers of extra volume and overall more impulsive and discretionary categories appear to hold more potential for shoppers to increase typical take home volumes and use up this volume faster.

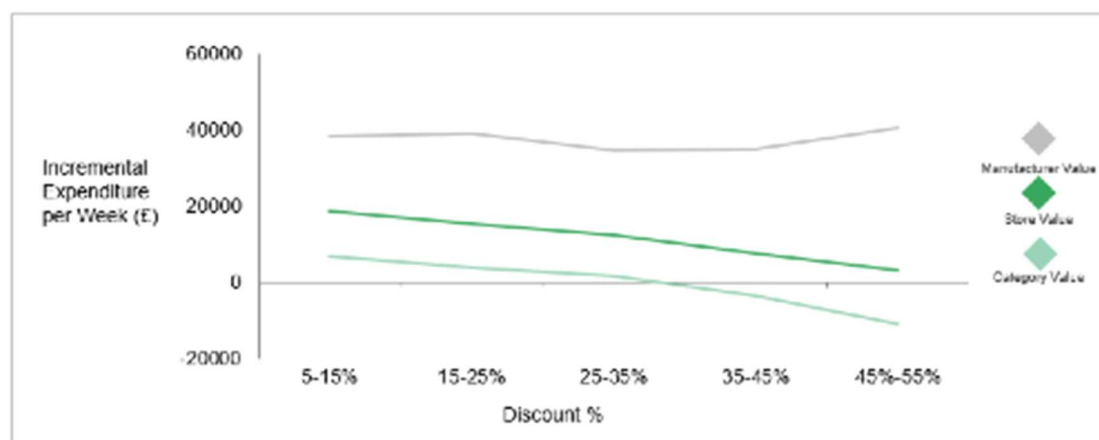
Impact of promotions on manufacturer and retailer profits

Individual promotions deliver clear increases in product sales for manufacturers and retailers. However, promotions for a specific brand do not occur in isolation – they form part of a product category in which other brands can be expected to discount in a similar fashion.

We have engaged extensively with businesses and trade bodies in the retail and manufacturing sectors to better understand the relationship between manufacturers and retailers with regard to promotional strategies. Although businesses have generally been reluctant to share detailed information about how promotional strategies are determined and how the relationship between manufacturers and retailers works, it was commonly acknowledged by businesses that promotions are agreed between the manufacturer and the retailer through negotiation. The details of a promotional strategy are dependent on many factors such as the type of product, seasonality, estimated sales, and they are often decided months in advance and agreed in contracts between the manufacturer and retailer.

17. Kantar assessed the impact of how differing levels of discount affect manufacturer, store and category revenue. These results are summarised in Figure 5 below.

Figure 5 Average impacts on shopper expenditure by discount²⁹



Regardless of the level of discount offered, manufacturers and stores typically see increased revenue from implementing a discount. However, once discounts reach above 45%, the expenditure return from promotions for the product category decreases. Kantar estimate that this occurs for approximately 4 out of every 10 promotions.

With 4 out of 10 promotions reducing category expenditure (but greatly increasing the quantity sold), there are clear pressures on retailer and manufacturer profit margins because of promotions. Losses on individual promotions might be accepted as part of wider pricing decisions and strategy. The idea of 'Loss leaders' is a well-known pricing strategy used to draw customers into stores and stimulate other sales on more profitable items. Promotions may also be necessary to ensure brand prominence within stores, with the existence of competitor promotions encouraging subsequent promotions.

However, if we look at it from a broader category perspective (encompassing all retailers and manufacturers operating in that food or drink market), the benefit that any one manufacturer enjoys by stealing from competitor brands is unlikely to hold much benefit. Movements from one brand to another (i.e. from full priced to discounted alternatives) will tend to generate reductions in total category expenditure unless these gains are offset by increased volume sales.

For retailers, the competition between different manufacturers within product categories is less important, as stores stocking a range of brands will generate profit from sales across all products. They do however benefit from some transferred spending from their retail competitors. Most shoppers now shop in a range of different stores, so being tempted to

²⁹ An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, a research project for Public Health England conducted by Kantar Worldpanel UK, 2020. Available here: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action> It is an update of Sugar Reduction: The evidence for action - Annexe 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, Public Health England, 2015.

spend on a promotion tends to prevent a degree of purchasing in competitor outlets. Promotions do not often cause a loss in sales value for manufacturers, but in a quarter of cases the promotion causes a loss for the retailer³⁰.

³⁰ An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, a research project for Public Health England conducted by Kantar Worldpanel UK, 2020. Available here: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>
It is an update of Sugar Reduction: The evidence for action - Annex 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar, Public Health England, 2015.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/470175/Annexe_4_Analysis_of_price_promotions.pdf

Number of OOH Businesses in Wales³¹

It is thought that free refills are only being offered within some restaurants, be that full-service and quick service. This falls under SIC 5610 with 4,565 businesses recorded by ONS. Desk-based research showed no hotels, pubs, or bars offering free refills, although it must be considered that there may be some around the country who are actively offering free refills. Desk research also showed seven large restaurant chains offering free refills and the total number of outlets for these is calculated at 97. Given the uncertainties, and the large size of some of those offering free refills, we allow an estimate that around 15% of outlets may offer free refills (782).

Table 2: Enterprises

- Restaurants and Mobile Food (SIC 5610)
- 4,565

Total Businesses in OOH: 4,565

Table 17: Local Units

- Restaurants and Mobile Food (SIC 5610)
- 5,215

Total Outlets in OOH: 5,215

Chains Offering Free Refills:

- Five Guys: 3 outlets in Wales³²
- Harvester: 14 outlets in Wales³³
- Nando's: 13 outlets in Wales³⁴
- Pizza Hut Restaurants: 9 outlets in Wales³⁵
- Taco Bell: 4 outlets in Wales³⁶
- Toby Carvery: 8 outlets in Wales³⁷
- Subway: 46 outlets in Wales³⁸

Total Chain Outlets Offering Free Refills: 97 (2% of Total Outlets)

15% of Outlets Estimated to Offer Free Refills in Wales: 782 to allow for the large size of many of the 97 units identified.

³¹ Office for National Statistics, 'UK Business: Activity, Size and Location (2021) – Table 2 & 17',

<https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation>

³² Five Guys, 'Store Locations', <https://restaurants.fiveguys.co.uk/wales>

³³ Harvester, 'Store Locations', <https://www.harvester.co.uk/restaurants>

³⁴ Nando's, 'Store Locations', <https://www.nandos.co.uk/restaurants/all>

³⁵ Pizza Hut, 'Store Locations', <https://www.pizzahut.co.uk/restaurants/find-a-hut/wales/>

³⁶ Taco Bell, 'Store Locations', <https://locations.tacobell.co.uk/>

³⁷ Toby Carvery, 'Store Locations', <https://www.tobycarvery.co.uk/restaurants#>

³⁸ Subway 'Store Locations', <https://www.subway.com/en-gb/findastore>