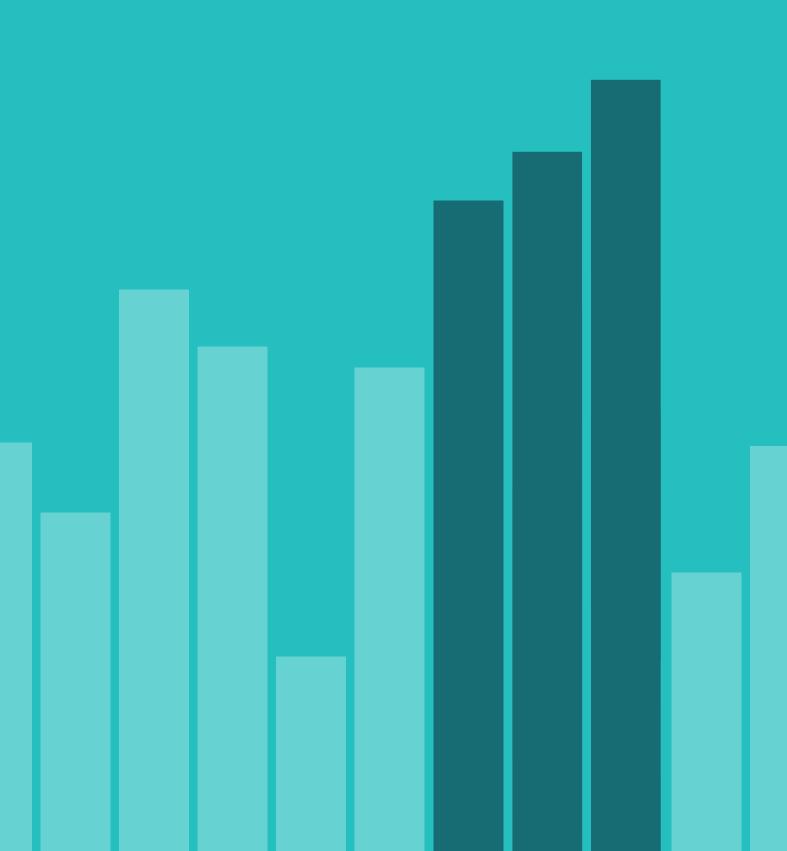
Superlist UK Health 2021





Are supermarkets prepared for the approaching legislative restriction on the promotion of HFSS products?
HOW MANY OF THE SUPERMARKET PROMOTIONS ARE FOR HFSS PRODUCTS?
Where can supermarkets take action to support better diets?

Supermarkets and the promotion of unhealthy food

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Questionmark



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Health & Promotions EXECUTIVE SUMMARY

Food companies play a key role in tackling obesity and other diet-related diseases. Our diets are shaped by our food environments, including what food options are available, accessible and affordable to consumers.

Originated in the Netherlands, Superlist is a multi-year research project that provides insight into the actions supermarkets take to provide a healthy food environment and make the food system as a whole more sustainable. This report sets out the results of a UK pilot, and is focused on reviewing the promotional practices of the four largest supermarkets -Asda, Morrisons, Sainsbury's and Tesco. The findings from Part I of the report presented here focus on the healthiness of the products subject to such promotions.

In order to encourage healthier eating and introduce a level playing field for retailers, the UK Government is introducing legislation in the autumn of 2022 restricting in-store and online marketing of High Fat, Sugar and Salt (HFSS) food and drink products. Ahead of such changes, the findings from the report show that there are important differences between promotion practices across different supermarkets, and hence different levels of preparedness towards them. It also suggests there is vast room for companies to show leadership in this area by using promotional techniques outside the legislation to support better diets.

The timing of this research provides a unique opportunity to be a 'dry run' of the legislation. By assessing the type and volume of promotions currently available, in addition to the health profile of the products included, supermarkets have an opportunity to make the necessary adjustments ahead of the legislation. In addition, this exercise also shows examples of further areas where supermarkets can take action to demonstrate leadership in supporting better diets.

Approach

Over a research period of five weeks, we collected all promotions of food products done in the online stores of the four biggest UK supermarkets: Asda, Morrisons, Sainsbury's and Tesco. We analysed the contribution of these promotions to healthy eating habits, using as points of reference the Nutrient Profiling Model and the Food Promotions and Placements Regulation.

Main findings and recommendations

20-30%

of products is on promotion

Promotions are a key part of UK supermarkets' strategies for selling food and drink products. Each week, between 20-30% of food products in online stores are on promotion.

50/50 unhealthy / healthier

Supermarkets are not using their promotional tools to improve people's diets. Across all four supermarkets, approximately half of all promotions are focused on HFSS food and drink products. Though forthcoming restrictions will ban the most harmful types among these promotions, it leaves ample room for supermarkets to take individual responsibility for healthy eating.

Over 300

unhealthy promotions per week

→ In contrast, the other major supermarkets still rely heavily on promotions that are likely to be banned under the new legislative measures. On average, Asda and Morrisons each ran over 300 of these unhealthy promotions per week. At Tesco the number was more moderate with 120 of such promotions per week on average.

ONLY SAINSBURY'S is well

prepared for the approaching legislative restrictions on promotions of HFSS products. This is in line with Sainsbury's official policy to refrain from multi-buy promotions for HFSS products. With this policy, Sainsbury's has shown how supermarkets can anticipate legislation and take individual action to combat obesity.

PROMOTION PRACTICES should be monitored on a regular basis and the results should be publicly available. This will give supermarkets a better picture of their role in combating child obesity. Moreover, the availability of facts and figures on this topic is likely to facilitate a public debate around the responsibility of retailers towards healthy eating.

REGULATORS SHOULD MONITOR

the effectiveness of the legislation once it has been implemented and apply additional measures to address any shortcomings if needed.

Supermarkets have an opportunity to help reduce obesity

through aligning their promotional practices with public health goals by:

- refraining from multi-buy deals in categories excluded from the legislation, in particular highly promoted products such as processed meat;
- proactively focusing their promotional techniques to increase sales of healthier products.



FOREWORD

Despite increased awareness of the importance of healthy eating, the number of people affected by excess weight across Europe, and the associated health and economic impact, continues to increase. It is therefore crucial that all actors, including food business and regulators, do more to support healthier eating.

In many countries, government intervention is limited to providing their citizens with information and education on healthy food choices. Recent behavioural insights however show that information is not enough. Knowledge does not always lead to healthier choices and eating behaviour is not always based on rational considerations. Our food environment has a considerable influence on what we eat. As such, the forthcoming Food Promotion and Placement Regulation in the UK is a very welcome step towards combating an obesogenic food environment.

Ahead of such legislative changes, this first Superlist Health focuses on understanding the role High Fat Sugar Salt (HFSS) products play in today's supermarket promotions. We also take a step beyond the forthcoming legislation to look at further measures that can be implemented. Our main question is: how well prepared are supermarkets towards the strict boundaries the government is intending to impose? And how can they further utilise promotions beyond legislative boundaries to show leadership in combating obesity?

This study shows that the legislation leaves ample room for individual supermarkets to lead the way towards a healthy food system. For me these findings confirm the importance of improving transparency across supermarkets' current practices. We hope the findings of this report are received as a constructive challenge, and that our recommendations to the relevant parties — public authorities and supermarkets — are useful to guide and encourage future actions in this area.

CHARLOTTE LINNEBANK

Director Questionmark Foundation

Questionmark

What is Superlist?

Supermarkets play a key role in influencing consumers' food purchases. This gives them the opportunity to make food habits healthier and more sustainable. Through the findings and recommendations included in Superlist, Questionmark Foundation is seeking to help supermarkets seize this opportunity. Superlist is a multi-year research project that provides insight into what supermarkets are doing to drive healthier and more sustainable food and drink purchases. Superlist also provides a tool to monitor and track supermarkets actions in this area, identify which companies are leading the way and which are lagging behind, and what they can do to improve their position.

Superlist was published for the first time in the Netherlands in 2020. This first edition was focused on the theme of Health and was followed by Superlist Green (environmental sustainability) in 2021. The first Superlist looking at what supermarkets are doing to support better Animal Welfare will be published in the Netherlands in December 2021.

Superlist UK is a pilot of this approach in the UK and the first of a series of studies in other European countries. Further Superlist editions will be published in Sweden and Belgium in 2022.

Governance

Questionmark Foundation is a European research institute. Its mission is to contribute to the public debate around healthy and sustainable diets by providing facts, figures and arguments. Questionmark Foundation is governed by an independent board whose members have no commercial interests in the food industry. Questionmark does not receive any funding that is directly or indirectly related to the British retail or food industry. Our integrity policy can be found on our website.

Methodology

The research methodology for this pilot study was published on the 20st of August on www.superlijst.org. The methodology was based on our general Research Framework, also available on our website. Any deviations from the framework in this pilot, such as the limited scope of the indicators, are due to the pilot status of this project.

Scope

The scope of this pilot is focused on the four largest supermarket chains in the UK in terms of market share: Asda (14.8%), Morrisons (10%), Sainsbury's (15.3%) and Tesco (27%). The total market share of this selection adds up to 67.1%. A full scope Superlist covers all major supermarkets with a cumulative market share of at least 85% in a country or region.

Research period

Data on assortment and promotions for this pilot study were collected between August 20 and September 24 2021. During this period, each supermarket's online store was visited weekly. For a full scope Superlist, the data collection period is at least 8 weeks.

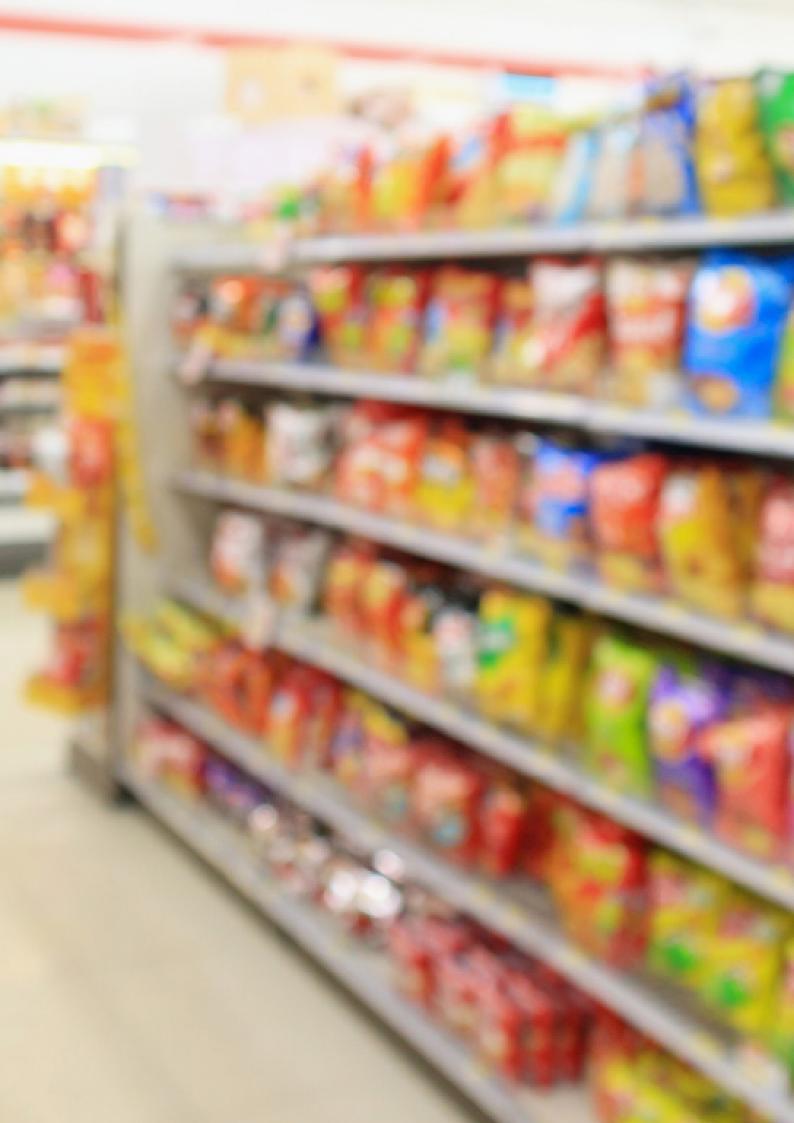
Split publication

The two main chapters of this report will be published separately. The chapter 'Promotions and Health' is part of the current publication. The chapter 'Promotions and Environment' will follow in early 2022 and can be read as 'part II' of the same research report.

Ranking of supermarkets

A typical Superlist research results in a ranking of supermarkets on one of four themes: Health, Environment, Animal Welfare and Human Rights. The scope of this pilot study does not allow for a general ranking of this kind. One of the objectives of this pilot is to assess the potential for a full scope Superlist in the UK in the near future. A full scope Superlist on the theme of health would comprise:

- A broader set of indicators, including metrics on the product range, shop layout and company policy, giving a comprehensive picture of a supermarket's contribution to healthier diets;
- A broader selection of supermarkets that comprises at least 85% of the market;
- → A longer period of data collection.



HEALTH & PROMOTIONS

Legislation leaves retailers opportunity for individual responsibility

SUPERMARKETS AND UNHEALTHY PROMOTIONS

Current promotion practices reveal that the forthcoming Food Promotion and Placement Regulation is much needed. This study also suggests that supermarkets still have a huge opportunity to take individual responsibility for healthier eating habits, regardless of the legislation. Recent political developments in the UK made this Superlist a special case. During the research period, the UK government drafted legislation intended to ban promotions of products high in fat, salt or sugar (henceforth: HFSS promotions). This legislation is planned to come into effect in 2022. The legislation is arguably the strictest of its kind worldwide, and a considerable step ahead forwards to a more healthy food environment.

Beyond complying to legislative measures, there are additional ways in which supermarkets can take further actions to encourage healthier food choices. This study highlights where such opportunities for showing leadership may be, by assessing differences between current promotion practices employed by the four largest supermarkets in the UK. We focus on two aspects of food promotion in particular:

 The use of multi-buy promotions (for example "3 for the price of 2", "3 for £10", or "buy one get one free")
The use of other price promotions (for example a temporary price

reduction of a product)

Price Promotions

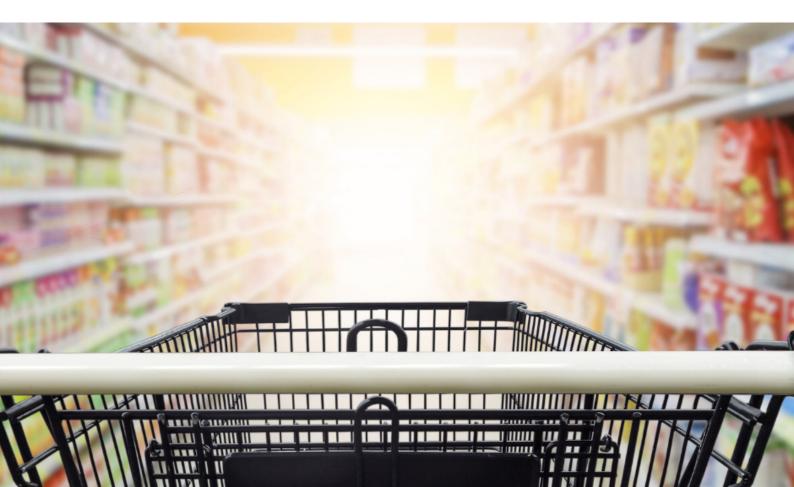
The scope of the forthcoming legislation is based on a number of intersecting distinctions between types of promotions and promoted products. Each promotion can be classified along three boundaries:

Health: HFSS or healthier

We used the Nutrient Profiling Model to assess the balance of nutrients in a product. If a product contains levels of fat, salt or sugar that are not in balance with more beneficial nutrients, the product is considered 'HFSS' (High in Fat, Salt or Sugar). If on the other hand beneficial nutrients and nutrients to be avoided are in balance with each other, the product is considered 'healthier'.

Category: high risk or regular

The promoted product may belong to a product category that is considered to contribute significantly to children's calorie intake. A list of these categories is given in the legislative text and comprises categories such as soft drinks, snacks, breakfast cereals, confectionery and ice cream. In this study we refer to these categories as 'high risk categories'. For a complete list see the annex.



PRODUCTS

	HFSS		HEALTHIER	
PROMOTIONS	In high risk categories (see annex)	In regular categories	In all categories	
Multi-buys	Segment A Covered by legislation	Segment D	Segment G	
Meal deals	Segment B	Segment E	Segment H	
Other price promotions	Segment C	Segment F	Segment I	

Figure 1 - Segmentation of the promotions found in this research. * According to the Nutrient Profiling Model

We use the term 'regular category' to refer to all product categories that are not listed in the legislative text, and are thus exempt from regulation.

Promotion type: multi-buy, meal deal or other price promotion

The price promotion is either a multi-buy (e.g. "3 for £10", or "buy one get one free"), or some other kind of price promotion (e.g. temporary price reduction). Here, meal deals constitute a special case of multi-buy promotions, exempted from regulation.

Figure 1 gives a visual overview of these distinctions and the resulting segmentation of promotions. Each of the segments is marked with a letter. In the sections below we use these letters to denote the segment that a graph or analysis is about. This may help the reader to interpret our findings.

We registered all promotions run in the research period and analysed them according to the definitions in figure 1. For example: segment E in our analysis refers to all products that were eligible as part of a 'meal deal' in the research period, and that belong to categories that are exempted from the regulation.

WE REGISTERED over 48.400 food promotions for 11.700 distinct food products

The analysis was done algorithmically for the most part, using (a.o.) the nutritional data, product category and the ingredient list from the online stores.

In order to classify a product as either HFSS or not, we applied the Nutrient Profiling Model (NPM) (PHE, 2018). Using given nutritional values and other relevant and publicly available product data, we determine if the



Figure 2 - A breakdown of the healthiness of all price promotions per retailer.

Nutrient Profile for a promoted product exceeds the threshold values for classification as 'HFSS' according to the legislation. In case data were missing, we used assumptions on the level of the product category. For a detailed account of our analysis we refer to the annex.

General observations

Over the course of the five week data collection period, we registered over 48.400 food promotions for approximately 11.700 distinct food products in total. A substantial amount of products were on promotion for several consecutive weeks, in which case our methodology counted each week as one promotion. On average in a given week in the research period, between 20-30% of the products in the food product range of the four supermarkets were on promotion.

Over 43% of those promotions appeared to promote HFSS products. Although for a number of products the available data did not allow classification, the general picture emerging is clear (see figure 2). The total number of promotions is in the same order of magnitude for all major supermarkets. Additionally the roughly even distribution of promotions over HFSS and healthier products is consistent for all of the four supermarkets.

It is important to stress that the term 'healthier' is used here to refer to all products that are not HFSS according to the Nutrient Profiling Model. The Nutrient Profiling Model does not apply to alcoholic beverages, hence they are left out of the analysis.

Alcoholic beverages

Alcoholic beverages were beyond the scope of this study but it is our estimate that between 14% and 20% (average of 17%) of all promotions refer to alcoholic beverages.

Multi-buy promotions of HFSS products

Research has shown that multi-buy promotions can lead to up to 22% extra consumption of the product category (PHE, 2020). This means that the increase in consumption comes on top of

IN 5 WEEKS, WE REGISTERED OVER 5800 multi-buy promotions of products high in FAT, salt or sugar.

what consumers would have consumed if the multi-buy promotion would not have been there.

Therefore, multi-buy promotions for products high in fat, salt or sugar (HFSS) may have a significant effect on the healthiness of a person's diet. For this reason, the UK Government has drafted the Food (Promotion and Placement) Regulation to specifically restrict multi-buy promotions for HFSS products. The forthcoming legislation applies specifically to multi-buy promotions in product categories that contribute significantly to children's calorie intake (in this text referred to as 'high risk categories'). Thus, the regulation targets precisely those promotions that are most harmful to children's health.

This study indicates that this narrowly defined regulation still covers a considerable number of promotions in practice. Figure 3 gives a breakdown of the multi-buy promotions registered during the research period.

In a period of five weeks, we registered over 5800 multi-buy promotions of products high in fat, salt or sugar. A majority of these products (over 3800) belong to categories that contribute significantly to children's calorie intake, bringing them in scope of the legislation. From all promotions run by the total of the four supermarket chains in this period, 65% will thus be banned when the regulation comes into effect.

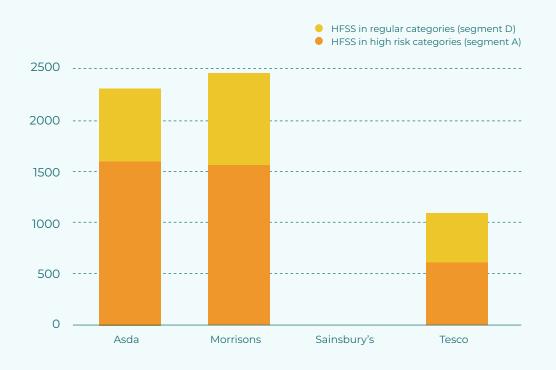


Figure 3 - HFSS multi-buy promotions per retailer.

Over half of these promotions concerned products in only four categories: chocolate (18%), crisps (14%), sweets (11%) and soft drinks (9%).

Interestingly, Sainsbury's already complies with the forthcoming regulation, at least in the research period. This is in line with Sainsbury's policy, announced in 2016, to refrain from any type of multi-buy promotion (Sainsburys, 2016). In the research period, Sainsbury's did not run any multi-buy promotions for HFSS products, neither in high risk nor in regular categories.

For the other supermarkets, Asda and Morrisons seem to lag furthest behind. In a five week period they each ran approximately 1600 promotions of the type that will become prohibited in less than a year from now. Moreover, Morrisons also ran nearly 1000 (and Asda over 700) promotions for products that are outside the scope of the legislation, but that nonetheless qualify as HFSS according to the Nutrient Profiling Model. Tesco has not made an explicit commitment equivalent to Sainsbury's'. Nevertheless, in comparison to Asda and Morrisons, Tesco seems to adhere to a more moderate strategy where it comes to the most harmful type of promotions.

Breakdown of HFSS promotions out of scope

Even if regular categories - outside the scope of the legislation - constitute a relatively less important source of calories for children, they may still contain products that are both heavily promoted and high in fat, salt and sugar. In order to give an impression of this segment (segment D) we show a breakdown by category.

Figure 4 shows regular categories with the most HFSS multi-buys in the research period. Below we give an explanation or example of some of these categories.

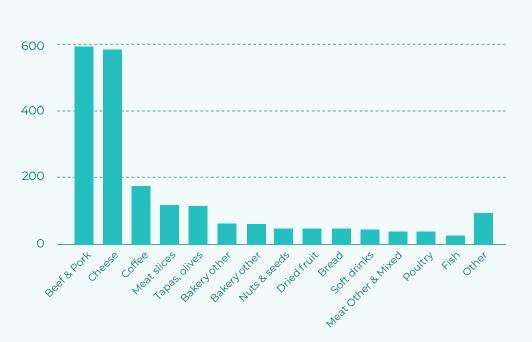


Figure 4 - HFSS multi-buy promotions not covered by legislation. Per regular category (segment D).



Animal products

It stands out that unhealthy (processed) animal products are heavily promoted through volume deals: beef & pork, cheese, meat slices & spreads, other meat & mixed, poultry and fish together make up two thirds (67%) of the multi-buy promotions in regular categories. For example:

Slow Cooked Gammon (Morrissons) is not in scope of the legislation because processed meat as a category is not considered to contribute significantly to children's calorie intake. The product scores 7 points in the Nutrient Profiling Model, where 4 is the threshold for classification as an HFSS product. The score is mainly due to high levels of salt (1.9g/100g).

Simple to Cook Sweet BBQ Mini Ribs

(Asda) is not in scope of the legislation because processed meat as a category is not considered to contribute significantly to children's calorie intake. The product scores 10 points in the Nutrient Profiling Model, where 4 is the threshold for classification as an HFSS product. The score is mainly due to high levels of sugar (12g/100g).

Mature Cheddar Slices (Tesco) is not in scope of the legislation because cheese as a category is not considered to contribute significantly to children's calorie intake. The product scores 23 points in the Nutrient Profiling Model, where 4 is the threshold for classification as an HFSS product. The score is mainly due to high levels of saturated fats (21.7g/100g) and salt (1.8g/100g).

Soft drinks

Soft drinks in this analysis are mostly 'adult soft drinks', positioned as a replacement for alcoholic beverages. This explains the fact that these products are out of scope of the legislation, which is specifically aimed at combating child obesity. We relied on the supermarket's categorization to classify products as 'adult soft drinks'.

Dried fruits

Among the dried fruits we find a number of promotions with relevance to healthy eating habits for children. For example:

Sunny Fruit Mix-ups (Morrissons). The product scores over 4 points in the Nutrient Profiling Model, which is the threshold for classification as an HFSS product. The score is mainly due to the high sugar contents (over 56 gr per 100 gr). Raisins have a high sugar content by themselves and on top of that the dried strawberries in this product have been sweetened with apple juice concentrate. The product is targeted at children.

Bread

Examples of promotions of HFSS products in this category are promotions for flatbread, crispbread, garlic bread and cheesy bread. Bread is not considered to contribute significantly to children's calorie intake.

Goodfella's Garlic Bread (Morrissons). The product scores 7 points in the Nutrient Profiling Model, where 4 is the threshold for classification as an HFSS product. The score is mainly due to a high level of salt (1g/100g).

Number of HFSS promotions not based on volume bought

Promotions of the kind "from £1,50 now £1,-" or "this week only half price" do not require the customer to buy more than one item in order to get a better deal. This type of promotion will not be covered by the legislation, which focuses on multi-buy promotions as the most harmful type of promotions. Still, a temporary price reduction may lead to up to 14% incremental consumption of the promoted product (PHE, 2020). Price promotions other than multi-buys thus provide an important opportunity for supermarkets to show they are taking responsibility outside of the forthcoming regulation.

Figure 5 shows the number of price promotions other than multi-buys (but including meal deals), run over the course of the research periode of this project, from August 20 to September 24 2021.

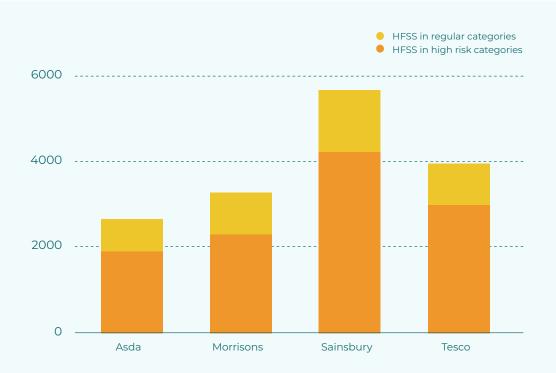


Figure 5 - HFSS meal-deals and other price promotions per retailer

In the research period, the four largest supermarkets ran approximately 15.500 HFSS promotions not based on volume. A large majority (71%) of those were in high risk categories (contributing significantly to children's calorie intake). The next section will zoom into those promotions in high risk categories. It should be noted that meal deals are included in these figures (segments B and C).

It seems that Sainsbury's has compensated for their refraining from multi-buys with an increase in plain price reductions to over 1100 non-volume promotions for HFSS products per week on average.

From a health perspective this increase does not nullify the benefits of refraining from multi-buys. A plain price reduction may cause a 14% increase in consumption but multi-buys can lead to up to 22% increase.

Nevertheless, the shift that seems to have taken place in Sainsbury's promotion strategy may considerably weaken the effectiveness of their policy on multi-buys. Further research is needed to determine if the high number of plain price reductions for HFSS products is a standard practice with Sainsbury's.

Breakdown of HFSS promotions not based on volume bought

As stated in the last section, price promotions not based on volume can still constitute an important and avoidable health risk. This holds in particular for promotions in high risk categories. Figure 6 shows a breakdown of HFSS promotions done in the research period in segments B and C. All categories in these segments are 'high risk': they contribute significantly to children's calorie intake.

Figure 6 shows that the most heavily promoted HFSS products - together accounting for well over half of the promotions in segments B and C - were:

- Crisps (15% of promotions in these segments)
- Chocolate (13%)
- Biscuits and cookies (10%)

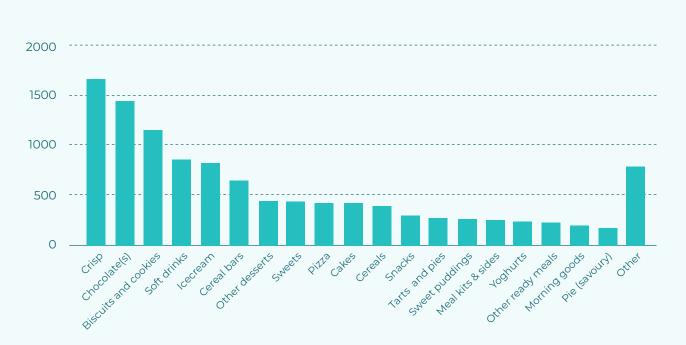


Figure 6 - Non-volume based price promotions in risk categories (segments B and C)

→ Soft Drinks (7%)

→ Ice Cream (7%)

This finding may help supermarkets to target effective policies at a further reduction of obesogenic food promotions.

Meal Deals

Meal deals are a special case of volume based promotion. Typically, a 'meal deal' is a price reduction on condition of purchasing two or three eligible items to form a 'complete' lunch or dinner. Usually a meal deal consists of one main meal component, one drink and one sweet or savory snack.

Technically, a meal deal is based on the volume (number of products) purchased. The legislative text however exempts these from the promotion restrictions, insofar as they are 'intended to be consumed together as, or as part of, a single meal'. Also Sainsbury's abolishment of multi-buys does not apply to meal deals. This makes it relevant to zoom into these segments and the way supermarkets take responsibility there. Figure 7 gives the proportion of products eligible as part of a meal deal that are HFSS according to the NPM in the research period (segment B + E) for each supermarket.

Figure 7 shows that products promoted as part of a meal deal do not always contribute to a healthy diet. In the research period, up to 50% of the promotions that were part of a 'meal deal' promoted products high in fat, salt or sugar. One can read this figure as follows: during the research period it was relatively easy to compose a healthy meal deal at Morrisons, where roughly 3 out of 4 eligible products were not HFSS. On the contrary, at Asda half of the products on offer for a meal deal were HFSS, which made it relatively hard to avoid an unhealthy lunch for anyone making use of this type of promotion.

The specific effect of meal deals on the healthiness of eating habits has not been assessed yet. In line with the findings on multibuys in general however, it is to be expected that meal deals incentivise an increase in the

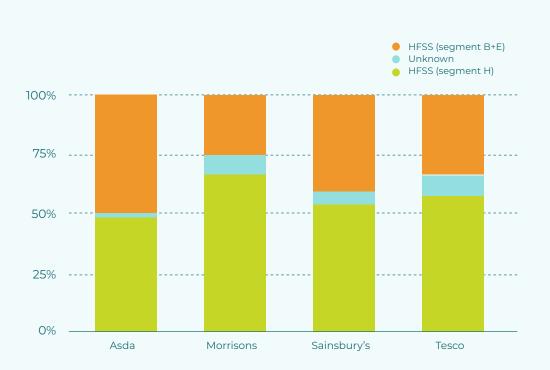


Figure 7 - Healthiness of meal-deal products

number of products purchased. Furthermore it is likely that the healthier products are generally bought as a basic component, with the unhealthy products being the complementary purchase stimulated by the special offer.

Anticipating future research into consumer behaviour, this finding shows ample room for supermarkets to take the lead in providing healthy meal deals. ON AVERAGE, OUR TEST CONSUMER ENCOUNTERED OVER **90 UNHEALTHY** LOCATION PROMOTIONS WHILE ORDERING A LIST OF **24 HEALTHY** PRODUCTS.

Exploratory comparison of location promotions in online stores

Online grocery shopping has seen a rapid growth in the past decade. Accelerated by the covid-19 lockdown measures, the share of consumers who purchased groceries online has doubled to 30% in less than ten years. The relevance of this market channel for the concern of public health is growing accordingly

As a field of research and policy however, the relationship between online promotions and healthy diets have received relatively little attention until very recently. The forthcoming Food Promotion and Placement Regulation includes a restriction of location promotions not only in physical stores but also in 'their online equivalents'. In order to understand the value of this part of the legislation, we conducted an exploratory assessment of location promotions online.

Approach

We created a new account at all of the four online retailers. With those accounts, we ordered a standardised list of 24 exclusively healthier products in a standardised procedure. We recorded the whole process from login to checkout. Subsequently we analysed the recordings with respect to all occurring location promotions of HFSS food products. As a location promotion we classified every product picture or offer positioned otherwise than on the virtual 'shelf': the list of products in the same category.

Observations

The one-off character of this part of the assessment did not allow for general conclusions. However, a few observations are noteworthy.

- On average, our consumer persona encountered over 90 unhealthy location promotions while ordering a list of only 24 healthy products. By way of an example:, while adding one package of frozen spinach to her basket, she came across
 - \Rightarrow 2 ads for crisps
 - \Rightarrow 3 ads for chocolate ice cream
 - 🔿 1 ad for pizza
 - 1 recommendation for Yorkshire puddings
 - \Rightarrow 1 special offer for battered onion rings
- There were considerable differences between the four online stores. Our persona encountered over eight times more location promotions for unhealthy food at Morrisons than at Sainsbury's.
- Roughly 2 out of 3 online HFSS promotions were labeled as 'advertisement' or 'sponsored'. It is unclear how these labels are relevant to the customer, other than indicating who has paid for the special offer. However, this observation may be relevant in the context of the food promotion restrictions, since the onebut-final version of the legislative text exempted 'third party advertisement material'. It is unclear if 'sponsored' or 'advertised' promotions in online stores would have qualified as 'third party advertisement material'. The exemption has been removed in the last version of the legislation.

There were remarkable differences across online stores in the use of these 'third party advertisements'. Only in Tesco's online store did we not encounter any of these labels. In other online stores, the share of 'third party advertisements' ranged from approximately 60% (Asda, Sainsbury's) to over 80% (Morrisons).

General conclusions

Again, conclusions on the practices of individual supermarkets cannot be based on these findings. We limit the discussion of this section to these general conclusions:

- The prevalence of online location promotions stresses the need for the forthcoming legislation.
- An exemption of 'third party advertisement material', as suggested in an earlier version of the legislative text, would have constituted a major loophole.
- Further monitoring of online promotion practices seems very relevant, given the fact that legislation will prohibit what seems to be an important instrument of online marketing. Notwithstanding differences between individual supermarkets, a shift in online promotion techniques is to be expected.



CONCLUSIONS & RECOMMENDATIONS

Current promotion practices make clear that the proposed food promotion and placement regulation is much needed. In the relatively short research period of five weeks, we registered over 3800 multi-buy promotions for products high in fat, salt or sugar in categories that contribute significantly to children's calorie intake. All these promotions will become prohibited when the legislation comes into force.

Sainsbury's is the only supermarket that already complies with the legislation, at least during the research period. Sainsbury's policy to refrain from multi-buys has shown how supermarkets can anticipate legislation and take individual action to combat obesity. Asda and Morrisons seem to lag furthest behind on this aspect. In a five week period they each ran around 1500 promotions of the type that will become prohibited in less than a year from now.

This study however also reveals that supermarkets still have much room to take individual responsibility, also after October 2022. It also suggests that there are important differences between supermarkets in the way they currently embrace this responsibility.

In product categories 'out of scope' of the legislation, certain HFSS products are currently highly promoted through multi-buy deals, notably processed meat products. Multi-buy deals for HFSS products are the most harmful type of price promotions, in terms of the effect they have on consumption of fat, salt and sugar. Moreover, in a number of product categories significantly contributing to children's calorie intake, HFSS products are highly promoted by promotion types that will not be banned by the legislation. Examples of these promotion types are plain price reductions (not based on the volume purchased) and meal deals. Product categories where these promotions are most intensively applied are chocolate, crisps, biscuits and cookies, soft drinks and ice cream.

Online, the prevalence of location promotions also stresses the need for the forthcoming legislation. Further monitoring of online promotion practices seems very relevant, given the fact that legislation will prohibit what seems to be an important instrument of online marketing.

In the meantime, we will have to wait for the next supermarket to take the lead with a promotion policy on plain price reductions for HFSS products.

Recommendations to supermarkets

Based on these findings, we recommend supermarkets to consider the following actions:

- Start tracking sales and promotions in terms of health:
 - Ask suppliers to provide all nutritional information needed to calculate a product's Nutrient Profile, work with assumptions where needed.
 - Add the Nutrient Profile to the standard product data, readily available for internal use.
 - Expect analyses on health to be part of all (internal) reports and strategies on purchasing, sales and promotion.

- Formulate a policy on the promotion of HFSS products in general, beyond the forthcoming legislation.
- Formulate a policy in particular on non-volume based price promotions of HFSS products in high risk categories, notably on chocolate, crisps, biscuits and cookies, soft drinks and ice cream.
- Publicly commit to your policy and make responsible promotion part of the brand identity.

Recommendations to policy makers

To policy makers we recommend the following steps, complimentary to the forthcoming legislation:

- Ask supermarkets to report publicly on the proportion of sales from healthier (non-HFSS) products.
- Monitor retailer promotion practices both in and outside the scope of the legislation. Continually assess the effectiveness of the legislation and the possible need for adjustment to new (online) techniques. Disclose the extent to which retailers take responsibility beyond the legislation.
- Consider these improvements of the legislation in the near future:
 - Include plain price promotions of HFSS products in the scope of the legislation.
 - Remove the exemption of meal deals.
 - Include sandwich toppings such as meat slices, cheese and sweet spreads in the scope of the legislation.



DATA COLLECTION & ANALYSIS

In this annex we give a quick overview of our approach to data collection and analysis. Further information can be found on our website.

Data quality

Data quality can be divided into completeness and correctness. In Superlist UK 2021 Health we look at products promoted in the online stores of the retailers: Asda, Morrisons, Sainsbury's and Tesco.

Products and promotions

On a weekly basis, all products on an online store are gathered. Each product that has a promotion indication ("1 + 1 free", "20% off", discounted price, etc.) is considered to be a promotion in that week. A promotion that runs for four weeks will thus be counted as four different promotions.

Completeness

We look at all the products a supermarket sells online. Our starting point are products that can be found by browsing the website through the categories or list of products (depending on what the website offers). We do not include products that can only be found through a name search. The number of products and promotions found each week is compared with other weeks, to detect deviations. Also any errors occurring during a website visit are monitored and investigated. Finally, for each online store, a manual sample-based check was done to see if all (food) products were included.

Correctness

For a correct comparison between supermarkets, both the product data and the processing need to be correct. We take the product data (nutrients, ingredients, name, etc.) from the website as-is; in some cases we can use product data found in one online store to complete data from another online store.

To make sure that we have processed the product data correctly, we do a sample-based check for each online store to see if the data was taken over and recognized correctly.

HFSS scoring

In order to classify a product as either HFSS or not, we applied the Nutrient Profiling Model (PHE, 2018). In the majority of cases it is not possible to calculate an exact NPMscore based on data provided by the retailer because either: The retailer does not provide (all) nutritional information required to do so.
The amount of fruit, nuts and vegetables is not given, or not given in a machine readable form (e.g. only indirectly derivable from the ingredient list).

We completed these data with an assumed range of values on category level. For instance, for cereal bars we assume that the amount of fruit, vegetables and nuts is between 0% and 100%, whereas for cookies this amount is assumed to be between 0% and 40%. Likewise we made assumptions about nutritional values. We based these assumptions on data given for existing products in the category. A complete list of assumptions can be found on our website.

Based on these ranges, we were able to calculate a range of possible NPM scores. In a majority of cases, this range in turn enables us to determine whether a product is HFSS or not, according to the legislation. If the highest value in the range of scores did not exceed the HFSS threshold value, we classified the product as non-HFSS. And vice versa, if the lowest value was not lower than the threshold value, we classified the product as HFSS. If the range of possible NPM scores includes the threshold value, we mark the product as 'incomplete'. For each retailer the number of 'incomplete' products is no more than 5%, and for each main product category the number of 'incomplete' products is less than 10%. This includes products with missing data in the online store.

Categorization

For a categorization of products as either in or out of scope of the legislation, we used the supermarket's categorisation as point of departure. Where needed, we completed this with a subdivision in more disaggregated categories based on distinctions in the legislative text and the NPM model.

Based on the promotions we gathered from the online stores, we determined for each product if it is food/drink or non-food, if it is in-scope or out-of-scope of the legislation, and if the product is HFSS or not. All these derivations were verified by sample-based checks.





ANNEX HIGH RISK PRODUCT CATEGORIES

Below is a summary and a generalization of the list of product categories as laid down in the legislative text. For the full list, see (UK Government, 2021). In this study we refer to these categories as 'high risk', because of their high contribution to children's calorie intake. All other categories are referred to as 'regular categories'.

Category 1: Soft drinks.

Category 2: Savoury snacks such as crisps, pitta bread based snacks, pretzels, poppadums, salted popcorn and prawn crackers.

Category 3: Breakfast cereals including readyto-eat cereals, granola, muesli, porridge oats and other oat-based cereals.

Category 4: Confectionery including chocolates and sweets.

Category 5: Ice cream, ice lollies, frozen yogurt, water ice and similar frozen products.

Category 6: Cakes and cupcakes.

Category 7: Sweet biscuits and bars based on one or more nuts, seeds or cereal.

Category 8: Morning goods, including croissants, pains au chocolat and similar pastries, crumpets, pancakes, buns, teacakes, scones, waffles, Danish pastries and fruit loaves.

Category 9: Desserts and puddings, including pies, tarts and flans, cheesecake, gateaux, dairy desserts, sponge puddings, rice pudding, crumbles, fruit fillings, powdered desserts, custards, jellies and meringues.

Category 10: Sweetened (whether with sugar or otherwise) yoghurt and fromage frais.

Category 11: Pizza (except plain pizza bases).

Category 12: Roast potatoes, potato and sweet potato chips, fries and wedges, potato waffles, novelty potato shapes (such as smiley faces), hash browns, rostis, crispy potato slices, potato croquettes.

Category 13: Ready meals and battered products.

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