

Identifying and Understanding the Factors that can Transform the Retail Environment to Enable Healthier Purchasing by Consumers

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Report Prepared for Food Standards Scotland (FSS 2016 013)

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1. Executive Summary

- 1.1 This report examines the factors that might transform the retail environment to enable healthier purchasing by consumers. The focus is on the in-store food retail setting and the interactions of consumers and retailers. Specifically the report has two aims:
 - (a) To provide an assessment of the evidence base on retailing practices, generating an overview of how food and drink retailing currently works in Scotland; and
 - (b) To provide recommendations for possible measures applying to retailers to change consumer behaviour towards purchasing a healthier diet.
- 1.2 There is growing interest in the interactions between consumers and retailers, from a number of disciplines and perspectives, as obesity and health concerns increase. There is a need to understand the retail environment presented to customers in store as this drives choice decisions. Retail operations and practices e.g. product displays, promotions, sizes and prices, construct the context for consumer in-store choice.
- 1.3 Several systematic reviews of academic studies exist around aspects of this subject. Most studies are short-term and have taken place in North America raising questions of sustained impact and transferability. Fruits and vegetables have been the main product focus, with interventions in the form of increased information and availability, and to a lesser extent price, being assessed. There are few studies on wider aspects of choice architecture and context adjustment in the retail setting, though some evidence is beginning to emerge.
- 1.4 It would appear that much of the research has been undertaken seeking to enhance the position of healthy products. There is an argument that even if this is continued to a high level, the overwhelmingly “toxic” or obesogenic food retail environment would ensure that consumers continued to purchase and consume unhealthy products. Consumer ‘desire’ for unhealthy products has been encouraged and manipulated by the in-store and retail environment
- 1.5 Overall, studies suggest that intervention and incentives have had some impact on behaviour change. The evidence base though is underdeveloped, with questions raised about the robustness and rigour of some studies. There is limited direct research on the underlying retail context (choice architecture) where consumer purchasing decisions and choices are made. The evidence to date suggests that altering the context and the choice architecture could have an impact on diet and health. Altering the context, expectations and frame of reference for consumers is important, though combinations of interventions may be needed. There is no one single solution to enabling healthier purchasing by consumers.
- 1.6 Retailers provide the link between production and consumption, mediating time and place by providing convenience of various forms to both manufacturers/producers and consumers. Food retailing is mainly a low net margin (typically 1-2%), high volume business, meaning sales volumes are vital. Structural changes in the market have led to a greater concentration of buying and information power in the hands of retailers, although consolidation has also occurred in the food manufacturing and wholesaling sectors. The modern UK food retail

sector is dominated by very large corporations and organisations and is an efficient and effective 'machine'. Retailers, including independents increasingly affiliated to symbol groups, have become more organised and sophisticated in their operating methods and the presentation of their retail offer. The internet has expanded purchasing opportunities and channels. Consumers, with greater travel, access to information sources and exposure to competing stores and messages, are more fickle and less loyal. Discount, convenience and the internet have emerged as key concepts within a changing retail landscape, as well as increased food and beverage and out of home food consumption competing with the retail shop sector. Large store retailing is increasingly being rethought and new uses for redundant space sought.

- 1.7 Within this wider environment, the Scottish diet has resolutely refused to improve and the achievement of dietary goals has remained elusive. Most interventions to date have focused on specific products (alcohol and tobacco), enhanced information provision and exhortation and voluntary reduction schemes (salt). The impact, with the exception of tobacco, has been limited. The Sugar Drinks Industry levy (SDIL) and the Healthcare Retail Standard (HRS) in hospitals provide two different but explicit approaches to adjustments of the choice architecture facing consumers in the retail store.
- 1.8 As the context where many food and drink transactions take place, the retail store environment is a critical battleground over any improvement of the Scottish diet. There are important questions to be asked about the availability, presentation and purchase of products within retail stores. Whilst there are huge differences across the retail sector in terms of store operations and scale, there are some basic principles and practices that are adopted by all retailers and are therefore potential areas (products, placement, price, promotion) for intervention.
- 1.9 **Products:** Retailers source products from suppliers to put in their stores. In many cases product content, information, packaging and pack size are determined by the manufacturer but in some instances, for example retail brands (private labels), retailers have considerable influence upon product specification. Pack size and information are the subject of negotiation and may be adjusted to fit shelf space and handling demands. Matching product (content/size) to pre-determined price points or to present a (bulk) value proposition are common adjustments.
- 1.10 On pack product information must meet certain legal obligations, but otherwise presentation is non-standardised and/or determined by voluntary codes. Portion size and product content is presented in a range of formats, visual images and text, leading to a degree of confusion for consumers. This makes it difficult for consumers to understand, compare products, and control dietary intakes. There are wider questions over the ability of consumers to interpret any information that is provided, if they are inclined even to use such information in the first place.
- 1.11 **Placement:** Having obtained products for sale, retailers display them within their stores seeking to meet the consumer mission for that store or shopping trip, and to maximise sales. Consumers purchase food in stores in different ways; some purchases are routine and regular, others more considered and deliberate, and others based on impulse. Store layout, product placement and display reflect this. General product ranging decisions will be based upon the company offer, the store format and the local catchment area. Product placement within the store is dictated by the physical size and configuration of the store, commercial experience and within some categories by suppliers through the provision of fixtures and fittings, cabinets

and planograms. Consequently many in-store ranging, layout and placement decisions are pre-determined or heavily influenced by head office, manufacturers or symbol groups

- 1.12 Space in a store is inherently unequal. Shelf space determines how products are displayed and is a finite commodity, so retailers seek to use it efficiently and effectively to maximise sales. Certain locations (e.g. aisle ends, power aisles, checkouts, at eye level and in juxtaposition with specific brands and categories) constitute 'hot spots' that are more visible and valuable than others. These locations command a premium and may generate either direct or indirect contributions from suppliers. Supplier branded fixtures and shelf edge displays and signage draw further attention to specific products and locations. Aisle ends and checkouts have been the focus of attention in terms of unhealthy products, given their visibility, leading to the introduction of sweet-free checkouts by some retailers.
- 1.13 **Price:** Retailers need to price products at a level consumers are prepared to pay or find attractive. The price of a product is not simply its production and distribution cost together with some set mark-up at the store level. Price provides a perceptual quality/value cue for consumers about both the product itself and the store or retailer involved. Most consumers hold price-based quality/value perceptions of retailers as companies, which may influence choice of store.
- 1.14 Consumers also consider the relative prices of products. This will be by reference to prices they feel they know, have experienced before or otherwise 'understand'. Other reference points will be the product adjacencies in the surrounding shelves, including prices relative to the category leading brands. A further reference point can be calculated by the unit price. The lack of clarity of the form, visibility and readability of unit prices does not help consumers in their decision-making. Discounts, price promotions and coupons are used in-store to reduce purchase prices and stimulate sales of specific products. The relative price difference between healthy and unhealthy foods is an important consideration for some. The impact of price on different consumer groups is important due to issues of affordability and calorie intake.
- 1.15 **Promotion:** Promotional activities operate at various levels and are initiated by different members of the channel. Consumers also react in different ways to the various promotional offers they receive. Retailers and manufacturers undertake general advertising of their products and their businesses. Some of this is awareness related whereas other advertising will take the direct form of price promotion, with offers often linked to specific stores. Retailer advertising is often price promotion lead, with popular but unhealthy products to the fore. Whilst there is some evidence that promotional activity and promotional sales have been reducing/changing recently, sales on promotion remain significant, with more unhealthy than healthy products offered and bought on promotion.
- 1.16 Within the store, there are a number of locations that can be used for eye-catching displays - aisle ends, large focal displays near the entrance, checkouts or 'power' displays. "Dump bins", retail ready promotional merchandising units and other visual elements also play their part in reinforcing price and other messages and also in focusing attention to drive consumer behaviour. Price promotions at such "hot-spots" in the store are often variants of price competition by discounting. They include Buy One Get One Free (BOGOF), other multi-purchase or multipack discounts, basic discount offers, cross product purchasing including meal deals and other such techniques. The intention is to drive purchase through the perception of price and value and combinations thereof. In addition to worries about the range of products promoted, concern has also been expressed that such techniques lead to an

increase in stockpiling and more food waste at the household level, or in enhanced consumption due to excessive product presence at home.

- 1.17 Using this 4P framework a set of possible interventions or levers on the retail in-store offering can be identified which could impact consumer decision-taking, purchasing and consumption with the aim of generating a healthier diet at the population and the individual level. The underlying rationale and potential impact of these interventions varies, though all are intended to alter the choice that confronts consumers in stores. However, questions remain over the acceptability of such actions and their impact on the sector, on individual retailers and retail outlets. Prior to considering the acceptability and applicability of interventions, four macro issues can be identified.
- 1.18 **Individual vs Societal Considerations:** Intervention attracts polarised views from consumers, businesses and consumer advocacy and other groups. These views can be summarised as the drawing of lines between individual freedoms and societal capabilities and capacities. Food and drink products involved are not illegal, so issues of personal choice versus ‘nanny state’ intervention will emerge. The tensions between personal freedom and the societal impact (and cost) of diet based health problems for families and the health and social are well known, though potentially changeable.
- 1.19 **Retailing vs Other Consumption Sites:** Retailing is not the only provider of unhealthy food. Other consumption sites e.g. cafes, restaurants, workplace canteens etc. account for a growing share of food spend and employ many of the practices seen in retailing. Cost structures in retailing have been impacted by several policy decisions in recent years, so resistance to further restrictions on operating practices is likely. This will be compounded if the sector feels blamed and “singled out” for intervention compared to other, often competing, consumption sites.
- 1.20 **Sector vs Company vs Store:** The retail sector in Scotland is highly competitive and the consumer increasingly fickle. The degree of competition at store level means that voluntary agreements are unlikely to have any strength or longevity and at sector level could even generate accusations of collusion and anti-competitive behaviour. The wide diversity of scale in shop and business size and in locations also poses a challenge for any intervention as they may impact upon competition and question the economic viability of some outlets, locations and businesses. Smaller stores in particular may be adversely impacted by the introduction of some of the interventions, both in absolute and compliance terms.
- 1.21 **‘Real’ vs ‘Virtual’ Retailing:** The retail sector is undergoing a transformation, one driver of which has been the development and popularity of internet shopping. Concerns already abound that internet retailers obtain unfair advantages over physical store based retailers, most notably in the areas of business rates and taxes. If store based retailing has to comply with various interventions, then the issue arises over their extension to and applicability for web based and internet based retail sites. Can, and should, these interventions apply in the virtual world? If they cannot, or do not, then consumers may circumvent them and internet retailers may gain another advantage.
- 1.22 Bearing these issues in mind, a number of potential interventions, considering the possible actions, rationale, impacts and barriers can be developed;
 - Product – product reformulation, pack sizes/serving sizes/multibuys, information;

- Placement – product placement, in-store merchandising/promotion/shelving, shelf space allocation and positioning;
- Price – unit pricing, product pricing, couponing and loyalty;
- Promotion – promotional types, multibuys/discounts/BOGOFs, promotional restrictions, promotional flyers, sampling and tasting.

1.23 A more regulatory approach to choice architecture is emphasised, as opposed to relying alone on the more positive nudging approach, due to the persistence of issues with the Scottish diet and the difficulty of perceiving voluntary actions as having sufficient impact. Some of these interventions involve new legislation and may well be resisted as interference in legitimate retailer (and in some cases manufacturer) operations. The most likely interventions to have potential are those that alter the choice set for consumers, often without them being aware. This suggests a focus on product reformulation and sizing as well as nudging activities. This though needs to be combined with a much sharper focus on information provision and a reduction in the confusion and mystification that abounds. Additionally, the balance of activities that are undertaken for healthy as opposed to unhealthy products needs to be reconsidered, probably through some form of legislation (including potentially through enhanced licensing or registration). This is not likely to be welcomed by the sector and there are operational and compliance difficulties and costs to be overcome.

1.24 The interventions cover a broad range of possibilities, with likely differential impacts, which are as yet not fully researched or understood. Some (in the product area) are general in nature and work across the retail sector (and others). Others (e.g. on place decisions) are more difficult to conceive of in some types of retail stores e.g. very small stores. Where intervention is focused on information and products it may be more acceptable to the retail sector and consumers, but may also have lower effectiveness. Interventions altering basic retail operational practices directly (e.g. promotional and display activities) are more likely to be difficult to achieve seamlessly and without legislation, but may have the larger sustained effects.

Conclusions and Recommendations

1.25 The Scottish diet has stubbornly refused to improve. Consumer behaviour related to the food environment is a major contributor to this. Questions can thus be legitimately raised over the food environment in Scotland, and in the case of this report, the in-store retail food environment. Has this exacerbated issues with the Scottish diet and health? There are few studies (mainly from North America and Scandinavia) affecting the choice architecture which confronts consumers in food retail stores though evidence is beginning to emerge. This suggests the need for more radical steps to adjust the in-store context.

1.26 The in-store environment is a battleground for manufacturers and retailers to obtain and maintain consumer purchasing generally and specifically for their brands. The context for in-store decision making is thus a constructed landscape of competing pressures and presences. Customers react in different ways to this, depending on their needs, wants, shopping motivations, knowledge and understanding, capabilities and so on. This environment or context sees consumers overtly and subliminally bombarded with subtle and not so subtle cues, promotional activities, information and other stimuli. Most of this reinforces purchasing behaviour focused on unhealthy products, and thus unhealthy diet, placing the onus to combat this on to the individual.

- 1.27 In order to assist consumers to make better choices, it would seem that there needs to be a reduction in this complexity and a rebalancing of the stimuli. Simply enhancing healthy product stimuli and relying on the individual is not likely to work. For effects to be substantial, rapid and sustained, there needs to be more control on the whole range of stimuli and a more level playing field between healthy and unhealthy products. This will undoubtedly face opposition from retailers and manufacturers, as well as some consumer advocacy groups.
- 1.28 We conclude that the current context for consumer choice in-store is affecting the health and diet of consumers in Scotland. Voluntary and self-regulatory approaches or relying on consumers to make “good” decisions are not having sufficient impact. It will thus be necessary to regulate to make the changes have real impact. This needs to be done in terms of product reformulation and sizing as well as stronger legally enforceable alterations to information provision. Such changes will alter the choice set for consumers in store. Beyond this, there needs to be action to rebalance the provision and promotion of products in-store and consideration given to steps to alter the differential pricing between healthy and unhealthy products. Such interventions are more problematic for retailers as they interfere in core retail activities. Quantifying the impact of these interventions is very difficult due to the breadth and variability of the retail landscape.
- 1.29 This report has focused on the in-store setting of the retail environment; we have thus not fully considered sector level interactions or interventions that could alter the situation more widely and dramatically. In terms of operationalising some of the interventions, current registration practices could be explored to scope out the potential to add conditions, though there would be costs of compliance to consider. This mechanism might restrict impact to only certain stores and could have possible unintended consequences on some. Nonetheless as a mechanism to allow tighter conditions on behaviours of retailers it needs to be considered. Alternatively some of the interventions could be associated with the introduction of a formal and more regulated licensing scheme for all food retail outlets, going beyond the current requirement to locally register food stores for environmental health reasons. Licensing (or an extension of the approval scheme for food handling) or registration (as with tobacco and alcohol) could be a way of ensuring compliance with some of the retail level levers. Such an altered scheme would begin to open up the potential for sector wide, locationally specific or otherwise targeted restrictions on the proportionate presence and promotion of unhealthy products.
- 1.30 There are thus a number of recommendations as ways forward:
- The lessons of the proposed Soft Drinks Industry Levy (SDIL) should be applied more widely, with the aim of encouraging product reformulation and associated product sizing;
 - Information provision needs to be enhanced, regularised, standardised and made more visible and legally enforceable, with the aim of aiding consumer decision-making, increasing awareness of health risks and reducing confusion via imagery and promotional messages;
 - Attempts should be made to engage a major and/or smaller retailer in developing trial stores to test out the alternatives, cumulative nudging, positive, regulatory and restrictive ideas contained in this report, combined with associated multi-disciplinary academic evaluations;
 - Consideration should be given to the introduction of a Food Retail Standard (along the lines of the Healthcare Retail Standard) to rebalance promotional and provisioning

activities between healthy and unhealthy products. This will require considerable thought over the detail and applicability across stores in the sector, its applicability to the internet and its costs of compliance, and may involve enhanced registration and licensing procedures;

- The retail sector should not be regulated on in isolation and all interventions need to consider impacts and relationships both within and across sectors.

1.31 This is a sector and a topic where overt regulation is not likely to be welcomed or easy. Impacts are most likely to work by affecting what is in front of the consumer i.e. the choice architecture informed by information, economic (price) cues and visibility/accessibility. To date this architecture has been designed and controlled by the manufacturers and the retailers. It is reasonable to question whether this can continue. A focus on the product itself, the information it carries and the promotional landscape are likely to be most impactful in altering this context or choice architecture, though could be supported by incentive, information and educational activities.

1.32 The issues raised in this report imply a new approach by retailers to some of their basic operating models. This is a very difficult “ask”, especially at a time of sector pressure and considerable turbulence, together with “leaky” systems seeing consumer spending transference to the internet, internationally and to alternative sectors e.g. food and beverage and out of home consumption. Interventions which cut across sector boundaries are thus more likely to find favour and to have an impact overall. It needs to be reiterated that the retail shop is not the only place of food purchase and consumption. If activity occurs to change the choice architecture within retail stores, then these other consumption sites should also be required to be subject to similar or equivalent interventions over the products they sell, the information they provide and the promotions they offer. Retailing is only a part of the problem, as well as only part of the potential solution.

2. Background

2.1 Food Standards Scotland (FSS) commissioned (Project FSS 2016 013) the Institute for Retail Studies at the University of Stirling to identify and understand the factors that could transform the retail environment to enable healthier purchasing by consumers. This work and this report focuses on the in-store setting and interactions of consumers and retailers. It does not cover retailers' locational strategies or impacts, nor broader concerns about the changing structure and role of retailing. This report uses literature on factors of, and interventions in, food retailing operations, supported where appropriate by the authors' research knowledge of food retailing to meet two aims:

- (a) To provide an assessment of the evidence base on retailing practices, generating an overview of how food and drink retailing currently works in Scotland; and
- (b) To provide recommendations for possible measures applying to retailers to change consumer behaviour towards purchasing a healthier diet.

2.2 In this report we do not formally define healthy or unhealthy products or diet, as this is beyond our scope. Instead we implicitly use a spectrum of more healthy to less healthy products, drawing a contrast between typically less healthy products (e.g. cakes, pastries, biscuits, chocolate, crisps and sugary drinks) and more healthy products (e.g. fruit and vegetables, plain starchy carbohydrates, oil rich fish). Whilst alcohol is mentioned, it is not the focus of this report, nor do we specifically address the issue of marketing to children in store settings. Here, we regard both as subsets and special cases of the core issues.

2.3 The report has four main sections:

- (a) A discussion of key themes and references in the literature, especially as they relate to consumer behaviour and retail food environments;

- (b) A review of how food retailing works in store settings;
- (c) A consideration of the interventions that could be applied within stores to enhance healthier purchasing;
- (d) Conclusions and recommendations on the potential next steps to help consumers purchase a healthier diet.

3. Literature Review

“High rates of overweight, obesity and chronic disease are partly attributable to an increased prevalence of poor dietary choices, which are in part due to the development of **habitual** unhealthy food and beverage choices” (Wilson et al 2016, p47, emphasis added).

3.1 The subject of this report is the retail shop setting and the potential alterations that could be made to enable healthier purchasing by consumers. This encompasses the interaction at the shop level of the in-store provision by retailers and the decision-making and food and drink purchasing of consumers. Whilst there is an extensive history of general interest in both provision and purchasing, focused academic research has expanded as obesity and health have become national concerns and as health studies, consumer psychology and behavioural science have become interested in consumer/retailer interactions. Retailers of course have commercially confidential information on these interactions which they protect carefully. This literature review focuses on this academic research and on the consumer, prior to considering retail operations more directly in section 4.

3.2 Soman’s (2015) book on decision-making and behavioural insights is viewed as an introductory primer for key themes in these areas. Table 3.1, reproduced from Soman (2015), summarises the tools for behavioural change, categorising them into regulations, economic incentives, information and persuasion, and nudges and choice architecture. Soman draws attention to the balance between nudging and regulation; an important topic discussed in more depth by Guldborg Hansen et al (2017). Soman’s chapter on retailing in this book is under-developed, focusing mainly on price as the key to decision-making and consumption, and underplaying other drivers on purchasing.

3.3 Soman’s overall discussion is very wide-ranging but three elements can be emphasised. He focuses on the power of the default position and the need to reset this on occasions. The

manipulation of portion size and the way this affects decisions is a second key theme. Finally he focuses on the context or situation as one of the key pillars of decisions. In retailing this suggests a focus in-store within shops. If the context and situation affects choice and decisions, then we have to understand how we can influence these, and thus consumer decision-making and then consumption.

3.4 A consideration of Table 3.1 in a retail “healthy eating” light might suggest that outright product bans will be seen as too intrusive/restrictive, but that economic incentives could be significant, given the retail/consumer relationship around price. This has been illustrated recently by the issue of sugar reduction (Public Health England 2015, 2017) and the proposed Soft Drinks Industry Levy (SDIL). Such economic incentives could also be combined with simplified information and choice architecture management (i.e. the ways in which products are displayed to consumers). In retail terms this lends support to the need to understand the environment that is presented to the customer in store. What are the default positions that drive choice? How are products, sizes and prices used to manipulate assessments? How can the context (e.g. the displays, presentation, promotions etc) be altered to maximise healthy choices and minimise unhealthy ones? What interventions would have the most effect? An over-riding question remains though about the best way to achieve any change; regulation or voluntary self-regulation (Caraher and Perry 2017).

3.5 Soman (2015) draws on a range of research to underpin his discussion, but there are also detailed academic reviews in this broad area. The Behavioural Science Centre at the University of Stirling hosts a nudge database (Egan 2016) which summarises, mainly from the behavioural economics literature, the interventions that have been attempted. The database has over 100 interventions, but few are in the area of healthy eating. There are only two retail

focused papers in the database; the first considers discounts on products and the second enhanced information disclosure on products.

Table 3.1 Tools for Behaviour Change (Soman, 2015)

Regulations	
(Bans, Compliance Rules, Mandates)	
Useful When	<ul style="list-style-type: none"> • Behaviour has consequences that has a high risk to society or take advantage of others (e.g. crime, intentional fraud, pollution) or violate society's values or ethics (e.g. racial discrimination, freedom of speech). • Third-party effects are present and the consequences of the behaviour are not entirely absorbed by the individual or corporation. • Establishing standards that enhance standard of living or protect individuals (e.g. minimum wage requirements, product safety). • Enforcement is feasible and cost-effective.
Avoid When	<ul style="list-style-type: none"> • Regulation is perceived as overly restrictive or intrusive. • Individuals would likely respond with defiance or by undermining regulation.
When Choice Architecture Can Help	<ul style="list-style-type: none"> • Enforcement is in place but may not be working effectively. Choice architecture may help increase compliance.
Economic Incentives	
(Taxes, Penalties, Grants, Subsidies)	
Useful When	<ul style="list-style-type: none"> • Behaviour is motivated by costs and benefits, and hyperbolic discounting does not take effect (i.e. benefits are felt up front; losses are painful). • Incentives are salient to the individual. • Market is in line with the incentives and does not work against them (e.g. subsidies for energy efficient products are in direct competition with cheaper products, 'green' taxes on computers must work against marketing efforts to sell the latest and greatest products).
Avoid When	<ul style="list-style-type: none"> • Behaviour is motivated by fairness, altruism or social norms (e.g. organ donations). • Taxes and penalties create 'licenses' to engage in behaviour.
When Choice Architecture Can Help	<ul style="list-style-type: none"> • Behaviour is affected by cognitive influences (e.g. loss aversion, status quo). Choice architecture can help highlight incentives or reduce particular barriers to accessing incentives.
Information and Persuasion	
(Advertising, Disclosure, Promotion Materials)	
Useful When	<ul style="list-style-type: none"> • Combined with other policy tools. • Encourage learning and can improve decision-making skills over time.
Avoid When	<ul style="list-style-type: none"> • Information is presented in a complex manner. • Message conflicts with what is being presented in the media or by other influences such as peers.
When Choice Architecture Can Help	<ul style="list-style-type: none"> • When information is overly complex, choice architecture can help improve information processing using nudge techniques such as salience and simplification.
Nudges and Choice Architecture	
(Defaults, Simplification, Opt-in versus Op-out)	
Useful When	<ul style="list-style-type: none"> • Freedom of choice is important and individual preferences vary. • Economic incentives or penalties are not appropriate. • Behaviour is affected by cognitive influences and individuals struggle with turning intentions into action. • Aligned with current regulations or incentives.
Avoid When	<ul style="list-style-type: none"> • Context can be changed by businesses or other institutions in the marketplace. Additional regulation may be needed to set boundaries for market behaviour. Or, incentives may need to be changed to improve alignment with policy goals. • Intended outcome of the nudge may go against individual intentions.

3.6 The nudge database focuses on behavioural economics. A recent systematic review has drawn on a much wider subject base to consider ‘the effectiveness of obesity related interventions at retail grocery stores and supermarkets’. This work (Adam and Jensen 2016) updates and extends previous systematic reviews which have covered aspects of the broad topic (Glanz and Yaroch 2004, Escardon et al 2013, Gittlesohn et al 2012, Seymour et al 2004, Glanz et al 2012 and Liberato et al 2014).

3.7 The Adam and Jensen (2016) review is closely aligned with the focus of this report and is comprehensive as well as recent. The breadth covered encompasses medical/health, behavioural economics and some retail material. Their systematic review covers 13 years to 2015 and identifies 42 core articles. We can draw a number of conclusions from their study:

- (a) most of the literature is focused on studies in the American market; there is thus an issue of transferability to the UK and to Scotland;
- (b) fruits and vegetables have been the main product focus with most work on access and availability as well as price;
- (c) interventions have focused on information and availability more than price, despite its status as a key driver, and most found some impacts arising from the intervention;
- (d) there are few studies on choice architecture and different context adjustments (e.g. product placement and presentation) in the retail setting;
- (e) interventions need to be combined; “interventions which combine price, information and easy access to and availability of healthy foods with interactive and engaging nutrition information; if carefully designed can help customers of food stores to buy and consume more healthy foods” (P1).

- 3.8 The national context is important and, as noted, care over transferability is needed. For example the Harvard School of Public Health Obesity Prevention Source section on the Healthy Food Environment (www.hsph.harvard.edu/obesity-prevention-source/obesity-prevention/food-environment/) mainly considers retailing and the food environment through the lens of encouraging supermarkets to locate in food deserts and deprived areas. This is a particularly American consideration. It does not consider how the in-store context can provide a “toxic” (in their words), obesogenic or otherwise constructed environment. Similarly, the Nourishing framework produced by the World Cancer Research Fund International (<http://www.wcrf.org/int/policy/nourishing-framework>) is useful for considering policy actions across the globe in this area, but transferability remains an issue.
- 3.9 Much of the literature cited in the Adam and Jensen (2016) review and its predecessors, and certainly the tenor of the conclusions above, is that positive steps and encouragement, in the broadest sense, will produce sufficiently positive outcomes. Research has tended to focus on the pathway to impact of enhanced information and visibility, combined perhaps with voucher/discount incentives, leading to purchase and consumption of more healthy products on a short and then a long term basis. Much research, as shown in Adam and Jensen (2016) has tested individual aspects of this chain.
- 3.10 Afshin et al (2017) in their systematic review and meta-analysis on food pricing and dietary consumption also found few studies, of variable quality. They conclude that price reductions on healthy food has a greater impact than price increases on unhealthy foods. This accords with expectations from consumer behaviour research, but raises issues about the funding and duration of subsidised interventions. This work reinforces the traditional interest in pricing as an aspect that can be readily altered. The Soman (2015) and the Nourishing frameworks point

however to price as being only one component of choice architecture. There are other avenues to consider.

3.11 The most comprehensive assessment of these other positive steps/nudges is the recent article by Wansink (2017). This introduces a Retail Intervention Matrix which managers can use to increase the sale of healthy products; it is based on evaluations of a range of short-term commercial and academic interventions. It focuses on making healthy products more convenient, attractive and normal (CAN) to purchase, through altering the signage, structure and service towards the consumer (Figure 1). Whilst usefully recognising that consumers react in different ways, the approach depends on retailers making extensive changes in-store and on believing that the effects of such changes would be positive in profit terms. It is unclear whether or how retailers would routinely alter their stores in this way, nor if such approaches would work individually or cumulatively across all sizes of stores, both for consumer health and retailer profit. Nonetheless the underlying ideas are of interest to public health policy.

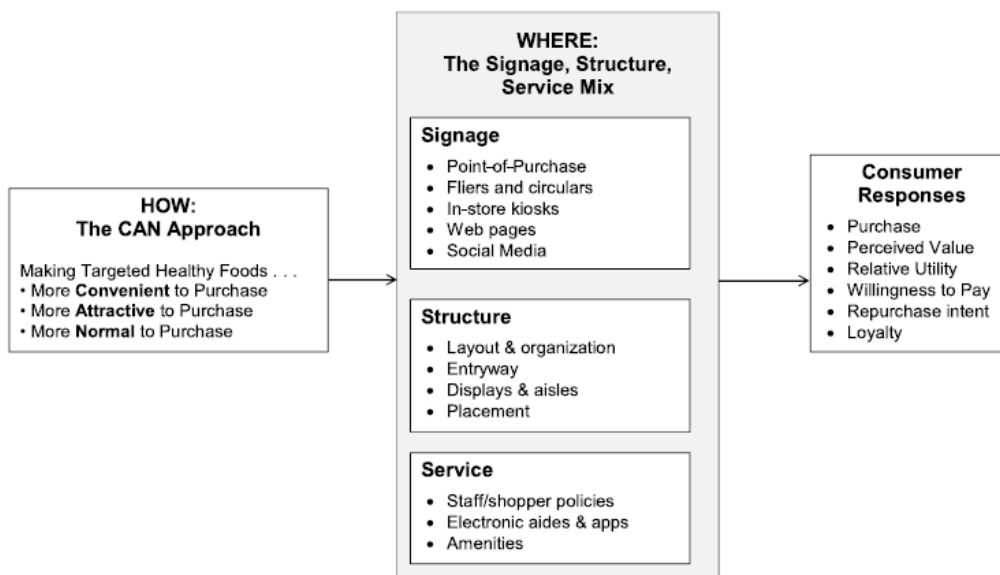


Figure 1: How and where retail interventions can influence shoppers (Source: Wansink 2017)

3.12 A further systematic review has focused on the academic work on nudging healthier food and beverage choices (Wilson et al 2016). They considered literature in psychology, business and health but found only thirteen relevant articles. They describe the studies as being either priming or salience nudges i.e. priming nudges of enhanced/alterd visibility, accessibility and availability and salience nudges of calorie content labels, traffic light labels and descriptive labels. In retail terms these are nudges over choice architecture and information, related to habitual and impulse purchasing as well as considered purchasing. Wilson et al (2016) did not find many of the studies to be of high quality and few were in a direct retail context. The review nonetheless provides limited evidence that nudging can be effective for influencing healthier food and beverage choices. They could find no studies which used other forms of nudges (default, incentive, commitment or norms – though see some of the research in Adam and Jensen 2016 and Wansink 2017) and conclude that much more research, of better quality, and in wider settings and with different nudges is needed to investigate the broad context and its possibilities.

3.13 The literature thus indicates that there are relatively few strong examples of nudges in this area to date, but that more examples and evidence are being generated. The discussion over such nudging needs to be couched in terms of a fundamentally changed contextual situation, rather than short-term campaigns to influence behaviours, often mainly focused on price alone. Whilst the literature does systematically consider the extent and efficiency of such nudges, it is likely that in such an emergent field and setting, more remains to be learned.

3.14 Others argue that such positive steps alone are not sufficient to change behaviours and diet. Sturm and An (2014, p348) present a strong counterpoint to this singularly positive approach; “if people had access to more produce or cheaper produce, or just ate more of it, would they eat less candy and be thinner? Probably not the unaffordability of healthy food may not

be the problem as far as obesity is concerned, it is the excess availability and affordability of all types of food". Taking this line means a recognition both that consumers to date have not altered behaviour in sufficient numbers nor to sufficient degrees to 'solve' the healthy eating /obesity issue, despite information and incentives put in place (albeit in much research these are temporary). Sturm and An (2014) state that the context for decision-making (i.e. the choice architecture) has to be altered, rather than added to, in terms of choices. Consumers need to be able to switch from a calorie-dense and unhealthy products/diet to a more healthy set of choices, and in the medium and long term and not just for short promotion-led periods. Their argument is that the retail context and choice architecture are exacerbating the problem and thus need be altered to help remedy the situation.

3.15 The most obvious and researched component of this context or situation confronting consumers is that of the prevalence of price promotions. Bogomolova et al (2015) consider the price promotion landscape in the US and the UK, pointing to differences between them (thus in passing reinforcing the issue of transferability). Their study shows the large extent of promotional sales and the variability in the types of deals, products covered, seasonality and depth of discount. They conclude that "variability... is... a reflection of ...chaotic and opportunistic nature of decisions about price promotions, due to result of individual negotiations... rather than a carefully planned strategy" (p9). Such a conclusion makes constructing promotional interventions difficult; even more so if there is some evidence that the context and scale of such price promotions is already altering (see section 4). It needs to be emphasised again though that price is only one component of the in-store retail environment.

3.16 It appears therefore that there are relatively few papers in the literature that investigate choice architecture directly in a retail context, though the volume appears to be increasing.

Previous Scottish work on policy interventions to tackle the obesogenic environment has conspicuously little to say about the retail setting (Mooney et al 2011). A recent paper (Waterlander et al 2017) on developing a “whole of food systems approach to public health nutrition” likewise situates “supermarkets” as a major purchasing context, but does not cover how such stores construct the in-store food environment. We have therefore to go back to first principles. Two papers (Cohen and Lesser 2016 and Glanz et al 2012) provide a framework of sorts to aid the discussion. Cohen and Lesser (2016) in a review on restaurants and retail outlets focus on impulse and cognitive decision-making at the point of purchase. They propose four key interventions (Table 3.2). As aspects of Table 3.2 are focused on the restaurant business, the table also serves as a reminder that food purchase and consumption are not solely retail outlet based activities (see section 4). The table however also indicates implicitly both the limits of such measures (will consumers heed the information?) and the potential reaction from businesses (will our profits be affected adversely?).

Table 3.2 Proposed point of purchase interventions (Cohen and Lesser 2016)

		Effect on consumers	Effect on food industry
Standardised portion sizing	Would establish the reasonable quantity for a single serving that would not put people at risk for a chronic disease.	Assist in consuming normal portion sizes.	If industry-wide, could increase profits.
Meal standards	Would establish guidelines for meals that could be eaten 3x/day and not place consumers at risk of a chronic disease (Each meal contain approximately one third of essential RDAs).	More easily allow consumption of meals that contribute to a healthy diet.	Would require reformulation of some meals. Restaurants that adopt these could attract customers interested in healthy eating.
Reductions of impulse marketing	Would limit impulse marketing of foods associated with chronic diseases; would reduce promotions, including discounts for impulse terms	Help consumers avoid purchasing items they did not intend on purchasing. Would likely save consumers money.	Likely decrease in profits for some items, but could be offset by increase in healthy impulse purchases.
Warning labels	Would identify products with discretionary calories as well as the serving size that would exceed the daily Tolerable Upper Intake Level for children and adults or Acceptable Macronutrient Distribution Range.	Provide consumers more clear information about harmful foods.	Companies with a larger product mix of unhealthy foods would likely have reduced profits, with the opposite for companies that offer healthy foods.

- 3.17 Most of the research does not really focus on the in-store context that retailers provide, nor the rationales that retailers have in developing and running their operations. The closest paper to this is the Glanz et al (2012) consideration of retail grocery stores marketing strategies and obesity. The focus again is mainly on the promotion and marketing of healthy products (i.e. information and incentive) rather than any de-marketing or de-positioning (i.e. choice architecture) of unhealthy choices. The paper does however usefully summarise its findings, promising strategies and research needs using the 4P framework of products, price, place and promotion (Table 3.3), though this could be more fully developed (and indeed is to an extent in the Wansink (2017) Retail Intervention Matrix).
- 3.18 Table 3.3 highlights the wide range of options that can be considered in terms of in-store activities. This 4P framework is used later in this report. It is however worth noting that an accurate academic/health understanding of the in-store food environment many not yet be well developed. Lytle and Sokol (2017) in a recent systematic review point to the variability of research in measuring the food environment and call for measures to be more robust, sound and sophisticated in order to understand better this complex context. A similar call is made by Waterlander et al (2017).
- 3.19 There is no doubt that interest in this area is growing both from a health perspective and from some business perspectives. A Sainsbury/University of Oxford announcement, as part of a Wellcome Trust programme, involves altering supermarkets to see if vegetarian purchases can replace meat (Guardian 27 January 2017 – “all change in the aisles to entice us to eat more veg”). It is suspected that the approach will be to combine incentive/information elements with alterations to product positioning, visibility and accessibility. Other research (Adam et al 2017) reports a small scale intervention in Danish supermarkets which manipulated shelf space management to impact calorie purchase. Whilst an effect was produced, the study was

limited and the authors caution about the limitations of the study in scale and product terms. These studies (see also Wansink 2017) reflect emerging interest in more fundamental rethinking of the in-store food retail environment, rather than a simple focus on short term price and promotional activities.

Table 3.3 Key findings, promising strategies and research needs (Glanz et al 2012)

	Key findings	Promising strategies	Research needs
Products	Access to healthy foods may increase healthful eating.	Ensure availability of healthful products.	Rigorous evaluation designs, quality measures of foods and diet.
	Less access to unhealthy foods may promote health.	Reduce/restrict/replace unhealthy foods.	Experimental research to supplement cross-sectional research.
	Product packaging (size) and images affect purchase and consumption.	Provide small package sizes with prompts for self-regulation.	In-store research to test small packages and images on healthy items.
Price	Price-change effects vary for customer subgroups.	Reduce prices for healthier items within categories (e.g. fruits, vegetables).	Evaluation of impact on varied income groups.
	Coupons and cross-promotion increase product liking and purchase.	Use price reductions to increase acceptability of unfamiliar healthier foods.	Test effects and sustainability; qualitative research useful.
Placement	In-store location matters; putting promoted products in prominent and “early trip” locations.	Place lower-calorie and healthier foods in visible, accessible locations.	Evaluate the use of placement manipulations in stores within and across products.
	Healthy checkout aisles can be helpful for reducing unhealthy impulse purchases.	Place multiple healthy checkout aisles in stores to shift the healthy/unhealthy balance.	Rigorous impact evaluation and reliable/valid measures of checkout aisle offerings.
Promotion	Most promotions of child-targeted foods are for sugary foods.	Increase promotion of nutrient-dense child-orientated foods. Decrease promotion of sugary foods.	Demonstration projects with health-committed cereal manufacturers.
	Shelf labels, samples and taste testing, and end-of-aisle displays are most noticed by customers.	Highlight healthy options by displays, labels and taste testing/samples.	Systematic manipulation of healthier options within categories in experiments.

3.20 Food consumption is not restricted to purchase from retail stores, as the restaurant examples in Table 3.2 show. These other sites of purchase and consumption may hold lessons for the in-store activities around healthy eating (e.g. portions, promotions and warnings in Table 3.2). Grech and Allman-Farinelli (2015) undertook a systematic review of nutrition interventions in

vending machines. Whilst the literature is again limited, their vending machine studies found that reducing price or increasing the availability increased sales of healthier products. Efficacy of the approach is supported. In vending machines however one could further ask whether the choice could be completely restricted to healthier products, given the consumer motivations at that point in many cases i.e. the choice architecture could be completely rethought.

3.21 The overall summary of what is a limited, but expanding, direct literature base in relation to retailing, is that altering the context, expectations and frame of reference is important, but that combinations of approaches may be needed. There is no one single “magic bullet”. The published evidence base remains underdeveloped, mainly as the field is so new and applications specific to the retail sector are relatively recent and still emerging. Nonetheless the literature points to a direction and measures that could be taken, though this is mainly focused on positive encouragement and nudges. Additional changes based on the impact chains that have led to restrictions on tobacco purchases (economic approaches, regulations and choice architecture), pressure to remove sweets from supermarket checkouts (choice architecture i.e. visibility, availability, accessibility), and to curb sugar sweetened beverages (availability, affordability, acceptability, awareness) might also be needed across retail food stores more generally. At this point it is not clear from the literature what would have most impact, whether in combination or singularly, nor its degree of acceptability or otherwise to retailers or consumers. Retailers know their operations well and have evidence and beliefs over what impacts on consumer purchasing, but the nudges, levers and restrictions outlined in this emerging field go beyond this expertise. Nonetheless there is evidence that altering the context and the choice architecture could have an impact on purchasing and ultimately on diet and health.

4. How Retailing Works

- 4.1 Retailing can be straightforward. In its simplest form, retailers obtain products, place them in front of customers, who then purchase and consume them. Retailers provide the link between production and consumption, mediating time and place by providing convenience of various forms to both manufacturers/producers and consumers. For consumers convenience may take the form of availability via the assembly of an assortment of products and services, in one place, located close to home, work or frequented transport routes, at times which suit consumer routines. For manufacturers and suppliers the access to consumers via a single contact point is more convenient, cost-effective and efficient than establishing individual contact points. In providing this activity retailers seek to make a profit, through the difference between the buying and selling price, less costs incurred. Grocery and food retailing is mainly a low net margin, high volume business, meaning sales volumes are vital.
- 4.2 For grocery retailers the single largest cost item on the balance sheet is the cost of goods sold i.e. the cost of procuring product plus transport and distribution costs, followed by labour costs, space costs and company overhead (administration) costs. For most grocery retailers, net profit margins now stand at around 1-2%. Pressure on net margins has been exacerbated in recent years by a “perfect storm” of the economic crisis, the emergence of the discount grocery sector, increased costs (e.g. rates, rent, levies, wages, pensions) and low (non-existent) consumer price inflation. This has coincided with further structural shifts in the market which has seen the growth of on-line grocery shopping and less loyal, increasingly fickle, consumer behaviour, with increased consumer switching amongst store formats and retailers. These factors have increased the pressure for sales growth through volume growth.
- 4.3 This simple description masks a set of complex inter-relationships and dependencies that complicate the outcomes and structure the market. Retailers have to consider the nature of

both supply and demand across a multiplicity of variety e.g. branding, pricing, promotions, sizing, textures, fashions, timings, access (physical and monetary), let alone health

4.4 For most of history food retailing has been a large sector operated by small-scale operational units and small businesses, dominated by the control and vagaries of supply from manufacturers. Consumers were inherently local, and residential place proximity was the key factor in success or otherwise. Manufacturers controlled supply and prices. Over time manufacturers' control (e.g. the abolition of Resale Price Maintenance) has weakened and restrictions on retailers' operations (e.g. prices and sales, locations, unit scale, hours of opening) have been removed, leading to an increase in retailer power. The closeness of retailers to consumers, in terms of their direct understanding of purchasing and behaviour, enables retailer knowledge on purchasing to be translated into retail power. A combination of increased buying power through takeovers and growth in market share, together with enhanced information power through the introduction of Electronic Point of Sale (EPOS) systems and loyalty cards has further changed the traditional balance of power and leadership within the food distribution channel towards the retailer. That said, consolidation has also occurred within the manufacturing sector, with the emergence of large multinational organisations controlling a range of major national consumer brands (e.g. Unilever). Similar consolidation has occurred in the wholesaling sector. The modern UK food retail sector is controlled and dominated by very large corporations and organisations (both at retail and manufacturer levels) and is an efficient and effective 'machine' (Burt and Sparks 2003).

4.5 One consequence of this polarisation of scale, market power and leadership in both the food retail and manufacturing sector is that as retailers have sought to differentiate themselves from each other they have established private brand (also known as store brand, private label, own brand) ranges (Burt and Sparks 2016), sometimes utilising the excess capacity and

strategic vulnerability of secondary brand manufacturers. Such products are distinct in that they are named and managed solely by the retailer for sale in only their specific retail outlets. Range development has been further enhanced by a search for differentiation through specialist (regional or consumer value driven) manufacturer brands. To some extent a segmented market has developed with large retailers dealing with large food manufacturers, a range of contracted private brand manufacturers (often making private brands for competing retailers), and a group of regional and/or niche/specialist manufacturers.

- 4.6 For most consumers the majority of grocery and food purchases are made in a physical store, although on-line sales are growing; consequently store location and the penetration of local markets has been a priority for retailers. Initially characterised as a “race for space”, as the large national (UK) players sought to expand their large-store portfolios (i.e. superstores and hypermarkets), smaller store formats have re-emerged in response to changing consumer shopping patterns, thus leading to major retail chains operating convenience and express/metro type stores in local catchment areas, on key transport routes and in smaller communities – locations that 15 years ago would have been ignored. The “race for space” for large out of town superstores has now largely been called off and store portfolio adjustments and reductions are underway as a reaction to changed consumer behaviours (notably convenience and the internet). In some cases this portfolio reduction involves the closure of now under-performing large stores. Many retailers have both redundant space (over-spaced) as well as superfluous retail sites (over-stored). All the retailers operating large hypermarkets and superstores are grappling with how to fill this space, with options varying from Argos, click and collect, clothing and services as well as coffee shops and catering/cafe/food offers e.g. Subway, Costa, McDonalds. Whilst it is perhaps too early to assess the extent, spread and success of these options across all locations, food-to-go and fast food type food and beverage

and restaurant operations would seem likely to suit space re-purposing in quite a number of sites.

4.7 As independent owned retailers, who previously dominated these locations, have sought to compete with the spatial spread of chain operated smaller store formats (from the mid 1990s), and the influx (from the mid 1990s) and success (from the mid 2000s) of the discount chains, the affiliation with symbol groups (e.g. Premier, Spar, Costcutter) has grown. Benefiting from enhanced trading terms and buying power from these affiliations, the symbol groups also allow smaller traders to gain access to marketing and promotional activities beyond their capabilities as independent traders. They bring more standardisation to store and business operations for the smaller independent retailers. Such operations have seen considerable growth in recent years (ACS 2016, ACS/SGF 2016).

4.8 Consumers themselves over this period of retail transformation have become more important to the retail operation, in the sense that they can no longer be taken for granted. Consumers generally travel more widely, have more awareness of purchasing power and opportunities, have greater access to information sources, opinions and general communications, are more exposed to competing influences (including advertising, price and branding) and have become more volatile and less loyal. As such, retailers are engaged in a constant battle to maintain and attract custom. This leads them to develop their holistic brand proposition, including store attributes, to best attract, inform and satisfy their customer needs, and to be constantly aware of the shifting consumer patterns, behaviours and product demands. In recent years this has seen a focus on internet grocery retailing (including click and collect) and on the shift away from large stores towards discount and convenience locations and stores.

4.9 Food retailing in Scotland has thus over time become:

- More dominated by a smaller number of large retailers,
- Who operate chains of retailer branded stores,
- Many of which are at a very large scale,
- Though increasingly, smaller discount and branded convenience stores have become more important,
- And internet food shopping has emerged as a channel of distribution.

These stores and channels provide a sophisticated range of operational practices which are designed to meet changed consumer needs.

4.10 The food retailing sector in Scotland is dominated, as in the rest of the UK, by a 'big four' (Tesco, Asda, Morrisons, Sainsbury), though in Scotland (according to Kantar) the Co-operative Group is larger than Sainsbury. The "big four's" c65% of the Scottish market has been eroded slightly by the discounters in recent years. Discounters (e.g. Aldi and Lidl) have presented an attractive price offer at a time of austerity and recession, and have invested heavily in developing their store and brand presence. Waitrose and Marks and Spencer provide the more upmarket food offering. The dominant number of stores however is provided by the independent retailers often trading through symbol groups e.g. Spar, Premier, RS McColl, Costcutter etc. Co-operative retailers (including in Scotland, Scotmid) as noted above have a considerable role. As elsewhere in the UK, there are also small but increasing dry grocery food and drink offers in some discount non-food ('bargain') stores (e.g. B&M, Home Bargains, Poundland) and frozen food specialists (e.g. Iceland, Farmfoods) have expanded their ranges into a wider general food offer. At the other end of the market the expansion of farm shops and farmers and other markets provides specialised and often high price artisan products. Nonetheless it remains the case that for the majority of everyday food shopping large stores

and large retailers are the dominant force, though further adjustments towards discount, convenience and the internet are likely.

4.11 As has been well evidenced by Food Standards Scotland (2015), the Scottish diet has been stubbornly refusing to improve and the achievement of dietary goals has remained elusive. The Scottish diet remains a big problem and progress towards the Scottish dietary goals negligible. All parts of society are affected but the most deprived have the poorest diet. Whilst there have been some small shifts, there is increasing pressure to move more quickly to ensure consumers have healthier diets. This pressure is for personal, economic, social, community and equity reasons, as well as the public cost of health care and remedial actions. The retail store environment, as the place where many food and drink transactions take place, may thus be a critical battleground in the improvement of the Scottish diet.

4.12 The Scottish diet as a whole is causing concern, and within this worries about the persistence of diet and health inequalities. Physical access to stores and to healthy food is not equal, though research in Scotland has challenged the widespread presence of “food deserts” (Dawson et al 2008), especially as the sector has changed again over recent years. Economic access however is different across the population and areas of high multiple deprivation may suffer both reduced physical and certainly reduced economic access. The locational patterning of stores by company and size and the concentration in deprived areas of types of food store, fast-food restaurants and take-aways, off-licences etc leads to an increased reliance on cheap, calorie-dense unhealthy products in many cases. The reasoning for, and impact of this locational patterning is outwith the scope of this report.

4.13 Some steps have been taken in Scotland to alter this environment and thus impact on diet and health. The long-established Scottish Grocers Federation Healthy Living Programme

<http://www.scottishshop.org.uk/healthy-living>) aims to improve the accessibility of healthy affordable foods by supporting convenience retailers, particularly those in deprived areas where diet is traditionally poor, to expand and improve their offering of healthier options. It is believed this will lead to an increase in the sale of healthier options, benefiting both the consumer and the retailer. Most retailers are provided with a branded stand to display fresh and healthy products, including fruit and vegetables (Figure 2), and some receive other branded point of sale materials such as shelf edgings and stickers. They are also given training and advice on how to maximise the sales of these healthy products. Evaluation of the project (<http://www.healthscotland.com/documents/23276.aspx>) has shown that elements have been very successful, but there has been variability in engagement by retailers.

4.14 There have been other steps taken in Scotland to alter the in-store purchasing environment.

For example:

- The Alcohol Act 2010 placed a ban on quantity discounts, restricted displays and promotion through removal of BOGOF (Buy One Get One Free) offers on alcohol, and made display areas discrete;
- Tobacco sales have been highly regulated and restricted including making point-of-sale kiosks and gantries “dark” thus reducing visibility and promotion of the product;
- In healthcare buildings (especially hospitals), the Healthcare Retail Standard (HRS) (<http://www.gov.scot/Publications/2016/10/5243/1>) is being introduced. This alters the provisions criteria (i.e. the proportion of items not high in fat, salt and sugar) and the promotions criteria for both individual products and meal deals (Figure 3);

- Between 2012-2015 a Public Health Supplement on large retailers selling alcohol and tobacco saw an increase in their rates, with the money raised intended to contribute to public health measures (Hellowell et al 2016);
- And, whilst the subject of ongoing legal action, the Alcohol (Minimum Pricing) (Scotland) Act 2012 introduces Minimum Unit Pricing (MUP) for alcohol.

4.15 Most activities have therefore been focused on a limited range of specific products, enhanced information provision and exhortation and voluntary reduction schemes (e.g. salt). The impact to date, with the exception of tobacco, has been limited. These Scottish specific activities need also to be placed alongside UK initiatives such as the proposed Sugar Drinks Industry Levy (SDIL) and the voluntary and self-regulated Public Health Responsibility Deal, the Public Health England Reformulation programme and the Front of Pack Nutrition Labelling Scheme.



Figure 2: Healthy Living Display Stand

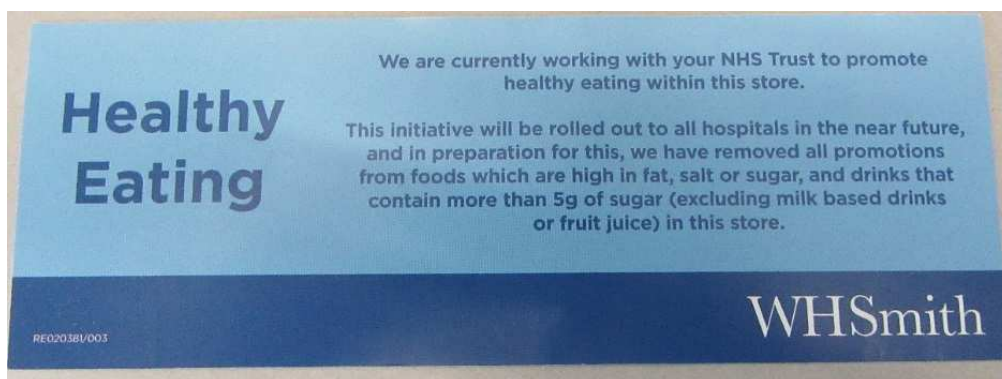


Figure 3: Healthcare Retail Standard - WH Smith Sign

4.16 It also has to be recognised that the retail store is no longer the only place such purchasing and eating decisions are made. The rise of the internet over the past 20 years has altered the notion of ‘going shopping’, with many decisions and purchases made online, whether for bulk weekly – type shopping or for specialist food products. As the same time increased mobility and other changing behaviours of consumers has led to a growth in ‘eating out’ (out of home consumption) of all sorts including casual and other restaurants but also through coffee shops, food on the go, vending machines and other ‘grazing’ opportunities. Home delivery of meal solutions (e.g. Just Eat and Deliveroo) and then use of “ready meals” have also risen. The retail store alone is no longer the sole focus for provisioning and for food and drink consumption, although it remains the largest component. This rise in the opportunity to “eat out” (or “eat-in” at home) in so many different ways has reduced the amount proportionately spent in traditional food retailing. More than that though, the influence across the sectors reinforces the notion of “fast food”, whether consumed in restaurants, “on the go”, or at home “ready meals”. The success and geographical expansion of Greggs and Subway as well as the coffee/cafe sector emphasises the change and the interactions. The justifications for the proposed “merger” between Tesco and Booker point to this changing food landscape with its emphasis on convenience chains, out of home food eating, click and collect and potential restaurant and food and beverage space use of their now over-sized superstore sites.

4.17 This report acknowledges all these changes but is restricted to the retail store setting itself.

Whilst the network of stores and their micro-locations do construct the food purchasing environment, analysis of this is outwith the scope of this report; the focus is on in-store operations.

4.18 There are important questions to be asked about the availability and purchase of products via retail stores. Whilst there are huge differences across the retail sector in terms of store operations and scale, there are some basic principles and practices that are adopted by all retailers and are therefore more amenable to any intervention. Table 4.1 provides a broad overview of these. This is used to structure the remainder of this section (this table clearly links to the earlier Table 3.3).

Table 4.1 Structure of In-Store Retail Activity

<p>Products</p> <ul style="list-style-type: none"> • Suppliers • Content • Information • Packaging and Pack sizes 	<p>Placement</p> <ul style="list-style-type: none"> • Store layout • Shelf space allocation • Shelf edge promotion • PoS/checkouts
<p>Price</p> <ul style="list-style-type: none"> • Price points • Unit price • Coupons/reward points 	<p>Promotion</p> <ul style="list-style-type: none"> • General advertising • Store specific advertising • Displays • Price promotions/multibuy etc. • Meal deals • Sampling and tasting

Products

4.19 Retailers require products to sell so they make arrangements to secure a source of supply. For some this is a relatively passive purchase decision, informed by the considerations of volume, price and anticipated sale. For others there is far more interaction in terms of the relationship and demands on the supplier/producer including the composition and make-up of the product

itself. This is most clearly seen when retailers sell retail product brands (otherwise known as private labels, private brands etc.). Here retailers have a significant influence on the product specification itself, both for price, but also for quality and reputation reasons.

4.20 The content of the product is to varying degrees a negotiation between the retailer and their suppliers and manufacturers, dependent on the relationship, the product and the situation. Whilst retailers have market power over many manufacturers, product reformulation remains a manufacturer strength. Influence over product content is best focused by targeting manufacturers. Manufacturers are used to product reconsideration and reformulation on a regular basis and for various reasons. A recent Brexit example is the downsizing of Toblerone bars in the UK to maintain a price position (there are many other examples now emerging; so-called “shrinkflation”). The reduction of sugar and salt in some products is another approach to wider issues, seen most notably with alterations ahead of the SDIL (e.g. Irn-Bru, Lucozade). Retailers though can be targeted about the content of their private label products.

4.21 The same would be true, in the main, for the other dimensions of product, namely pack size and information. Both are the subject of negotiation in many cases, but manufacturers will take their lead from legal requirements as well as retailer demands. Retailers may wish products to be of certain dimensions or in certain multi-pack or product sizes, sometimes to fit their shelf space demands. There have been divergent tendencies in the area of packaging and pack sizes in recent years. The pressures to produce to price points has seen a reduction in product sizes for many products in order to maintain price points and profit. Not all of this has been obvious to the public. Reducing sizes, weights etc. are one way of controlling profit but also may help in portion sizes, if individual portions are purchased. The alternative tendency has been to super-size and expand multi-packs so as to present a value based proposition. This has led to almost catering sizes of products being retailed for consumers and

with likely consequent consumption practices in the home (availability in the home is understood to lead to expanded consumption). Crisps would be one product example of these tendencies (Figure 4). There has thus been a divergence between pack size and serving/portion size with consumer disconnect between the two.



Figure 4: "Big Box, Great Value" 40 Packets of Crisps

4.22 Legal issues are significant in terms of some product information. Whilst some product information (e.g. colour, pictures, brand) is clearly the responsibility of the retailers and the manufacturers and are legitimately variable, other product information is more amenable to both proscription and standardisation. Since 2013, a voluntary colour coded front-of-pack nutrition labelling scheme has been in place for manufacturers and retailers to provide information to help consumers see at a glance whether a food or drink has high (Red), medium (Amber) or low (Green) amounts of fat, saturated fat, sugars and salt. Healthier choices have more ambers and greens and less reds. Standard product information about portion sizes for nutritional comparison as well as more obvious descriptions of product content would seem to be important if there is a desire to be more useful to consumers per se and to encourage comparison with other products. Thus, knowing and be able to use directly

and comparably, the sugar content of a product and/or standard size may best be obtained by legal intervention in information provision.

4.23 Consideration in any such development needs to be given as to how consumers ‘read’ such data and how they are able to make assessments of its meaning. Clarity and consistency allied to standardisation are known principles (and are the basis of the voluntary nutrition labelling code as above). However more thought might be given to using these principles to inform visual as well as written information. Thus spoonfuls or cubes of sugar might be an example of such a visual cue, as well as more rigorously informed/enforced traffic lights and product and portion/serving information.

4.24 The current position has seen developments in recent years as noted above. However, there remain large gaps in the information as seen and used by consumers. A key area of confusion is over the usage of portion size data and linked information and the use of visual imagery to illustrate ‘serving suggestions’ with unfeasible portion sizes. Szimigin and Gee (2016) point to this “mystification and obfuscation” in the presentation of portion sizes in UK food products and conclude that tighter regulation is needed in this area. They demonstrate how difficult it can be for consumers to understand, compare and control their intake, even in the home, let alone at decision time at the point-of-sale in stores

4.25 There are questions over the ability of consumers to ‘read’ current information, but there is also a question over the nature (and presentation) of information that would cause consumers to consider dietary aspects of their purchasing. The examples above point to the need for simplicity, consistency and clarity to aid awareness and behaviour and suggest a focus on product content (e.g. sugar, salt) in simple terms and the impact of consumption (e.g. calorie content) again in simple terms. Such information provision needs to be aimed at

providing more standardised, actionable, understandable information for consumers at point of sale and at consuming situations. Front of pack “traffic light” labelling is an attempt to do this in a retail product context, but remains voluntary. Such information provision probably needs to draw a greater contrast between healthy and unhealthy consumption than exists at present and be mandatory.

Placement

4.26 Having obtained products for sale, retailers display their products within their stores. In so doing they seek to meet the consumer mission for that store or for that trip. How and where products are displayed is thus a vital decision for retailers and is increasingly a combination of meeting browsing and directed activity needs. Thus some products are positioned to allow consumers to get in and out of the store quickly (e.g. “Grab and Go” sections), whereas others are there to attract consumers to move throughout the store. Some consumers will be seeking particular products and others may be browsing. Both may be subject to impulse purchases. Whether the consumer is habitual or variety-seeking, the exposure to products will affect their decision-making. How the consumer ‘reads’ the layout of the store, as set out by the retailer and ultimately ‘shops’ the store, is thus important.

4.27 Retailers set out their stores depending on the physical size and layout of the store and the range they wish to carry, together with any restrictions on the building and on the products they sell. Recent legal and regulatory changes have altered positioning and layouts for alcohol and tobacco for example. But the range decision is mostly based on the understanding of the local catchment, product availability and support availability from head office, manufacturers or symbol groups, depending on the retailer. Range will be modified by experience and by the purchasing patterns of customers. For perishable or short-life products (e.g. fresh fruit and vegetables) there is a delicate trade-off between making products available, their rate of sale

and the degree (cost) of wastage incurred. Smaller stores (including many convenience stores), with lower frequency of purchasing often suffer in this regard, perhaps pointing to the broader need to enhance demand locally for such products.

4.28 Retailers do not just decide the layout on a whim. In some cases the broad layout is dictated by experience or in the case of within product categories by the suppliers and the provision of shelving, cabinets, tools and planograms (A planogram is a visual merchandising diagram that shows within categories how and where specific retail products should be placed on retail shelves or displays in order to attempt to increase customer purchases). How a large store is set out and ranged may thus not really be in the control of the store manager. Much of the layout decisions may have been made elsewhere and are not really subject to a lot of alteration at the store level. Retailers will know what works generally as well as specifically by store.

4.29 At the broad store layout level the retailer requirement is to have an attractive store that visually is 'readable' and encourages consumers to 'see' the products at the category level. Different retailers may make different decisions about for example where and how to locate fruit and vegetable displays and where to have the soft drink displays and chillers. Broadly however most large stores are focusing on a 'grab and go' section for busy customers or those that know what they want, and then the main store layout itself, often structured for ease of store replenishment. Large 'power' displays are increasingly being seen near large store entrances, often dominated by manufacturer brands, which will have negotiated a space/price deal.

4.30 Where products are placed at a more micro level is a different matter however. Aisle ends and very visually obvious locations are clearly prime spaces. On shelves, products are more

visible to consumers at eye level and the way in which they are merchandised (blocks) has an impact on the ways in which consumers perceive products (Figure 5). Retailers thus often sell aisle ends and shelf space in advantageous positions (“hot spots” and “power aisles”) to their suppliers (Figure 6). Suppliers will accept such deals as they believe it produces more sales, can aid promotional and pricing activity and the introduction of new products and potentially has some sustainable effects for their sales as opposed to their competition. They will have evidence on the impact, though the availability of such space will vary store by store and there is no set proportion across the sector.



Figure 5: Block Products on Shelving



Figure 6 Promotional Deals – Aisle Ends

4.31 The amount of product on a shelf is a consequence of the trade-off between sales, visibility and range decisions. Shelf space is a limited commodity and thus retailers are at one level keen to maximise the number of products. However this provides a very limited level of attractiveness and can be unreflective of the differential sales rates of products. Thus shelf space allocation tends to over range (space) market leaders. As shelf-ready packaging has emerged (with inherent costs savings from less handling) so too minimum space requirements have increased. As highly visible blocks of products are eye-catching so both retailers and manufacturers have sought to develop them (sometimes at a price premium). Shelf and space availability affects these decisions, and thus scale of store is a constraint.

4.32 Not all shelves are of course the same, as suggested in the aisle end discussion above. Both retailers and manufacturers are keen to use such principles elsewhere on shelves. Thus shelf-edge displays and signage (such as shelf barkers and talkers, i.e. printed card or other signs attached to a store shelf to call customers' attention to a particular product displayed on that shelf) draw attention to product (Figure 7). More impactfully, some manufacturers, especially in smaller stores, will supply branded shelving to visually demonstrate and promote their products. Thus drinks chillers may be branded (Figure 8) and supplied (e.g. by Coca-Cola. Irn-Bru or Muller-Wiseman) or sweet sections may be provided (and sometimes branded e.g. by Cadbury) and may target young children's spending (Figure 9). These standard shelving units provided by manufacturers will be supplemented by branded floor display units for promotional or seasonal items. The Scottish Grocers Federation Healthy Living Programme support material attempts to have the same impression and impact, seeking to encourage sales/purchase of healthier items (Figures 2 and 7).



Figure 7: Shelf Edge Barkers



Figure 8: Coca-Cola Promotional Chiller Cabinets



Figure 9: Children's Sweet Displays

4.33 This discussion of the placement of products has emphasised that space in a store (and particularly large stores) is inherently unequal. This is seen in the checkout area where there has been much discussion about the presence of products at a point where people are waiting or queuing, or on a different shopping mission, wishing to be served rapidly (Figure 10). The presence of sweets, soft drinks and other such products at checkouts has been contentious for

a long while, most notably in food stores, but also in non-food stores where confectionery has been used as an impulse buy attraction (e.g. Next, Hobbycraft). Where food retailers have removed such products (Figure 11) there remain concerns on occasions about the products that replace them e.g. full sugar beverages replaced by flavoured water or sweets replaced by energy bars (e.g. cereal and granola bars). There is no systematic evidence of the spread of the voluntary removal nor of its impact on sales or profits, though retailers will have evidence. Large format retailers may have moved further in this regard than convenience stores, though Lidl were an early adopter of their self-styled “healthy till”.



Figure 10: Sweets at Checkout in Small Store



Figure 11: Sweet Free Checkouts

4.34 Consumers purchase food items in different ways and retailers take into account the different shopping trips that consumers might make and the influences they are subjected to. Some shopping is routine and regular, other shopping is more considered and deliberate, often weighing up alternatives (Figure 12). A third category however is impulse purchasing i.e. unplanned spur of the moment purchase and consumption. Categorising consumer spending into these categories is however very difficult, especially at the level of the product. Whilst dietary issues occur in habitual and deliberate consumption, impulse purchasing of less healthy products has been a large concern, as seen in the discussion of checkout and other promotional placement above. Such an emphasis may be inappropriate, as the habitual purchases in a constructed environment may be more harmful e.g. no healthy drinks in a vending machine, overwhelming promotions and visibility of unhealthy products across a store, catering size products for home consumption. Routine and impulse purchases are more likely to be reflective of the store environment and situational context.



Figure 12: Consumer Checkout Options

Price

4.35 The consideration thus far has focused on the actions of the retailer in obtaining and then making products available for sale in the store. The main function of a retailer is to serve customers profitably and so a major consideration is the relative difference between purchase and sale price. In larger retailers there are other considerations that affect this relationship to a greater degree than in smaller retailers (e.g. volume discounts, shelf space purchase, resales etc.), but in all cases retailers are keen to price at a level consumers are prepared to pay or will find attractive. Aspects of promotion on price will be covered in the next sub-section, but is obviously linked to the basic issue of pricing

4.36 The price of a product is a visual cue of some form of quality for many consumers. Value will be the relationship between price and quality that is perceived. Thus the price of a product is not simply its production and distribution cost, together with some set mark-up at the store

level. Instead it is a perceptual cue for the consumer about both the product itself and the store or retailer involved. Whilst the number of known value items (KVIs) (i.e. products, the prices of which people feel they know accurately) has probably fallen in recent years, stores do have price perceptions placed on them by consumers and of course advertise to reinforce or to develop this price perception (e.g. Asda in the UK). Most consumers will therefore have a price based perception of retailers as companies, which may influence their choice of store. Retailers thus have to consider both the price of the individual product, but also the basket of products that a consumer may purchase. This inevitably means that margin is not only a single product consideration, in that some prices are used to attract consumers to the store e.g. as a loss-leader or heavily discounted.

4.37 Price as a cue or an information tool is in itself only one element. Consumers also have to, and want to, consider the relative prices of products. Some of this consideration will be by reference to KVIs, products they have experienced before or otherwise 'understand'. Other reference points will be the product adjacencies in the surrounding shelves, including prices relative to the leading category brands. Planograms not only position products but position product, prices and products sizes. There are thus choice architecture influences on the consumer at this point. A smaller, non-retail store example, but with similar attributes, is the three size cup offerings in coffee shops and the ways in which this manipulates choice and consumption.

4.38 Other reference points however can be calculated by the notion of the unit price e.g. per 100g of a product or per litre. Unit pricing is an attempt to cut through the placement/product-price/product-size obfuscation of the manufacturers and the retailers. Reference prices in the form of unit prices have been around for some time and are statutorily prescribed. However their exact form and their visibility and readability often leave something to be desired (Figure

13), despite their potential usefulness in comparisons e.g. between brands and pack sizes. Adjustment of this aspect of pricing might make consumers lives easier and could lead to better decision making. It would also clarify the relative discrepancies by size. This is related to the consideration of information discussed earlier. There is a lot of confusion and lack of clarity in this area which does not help consumers in their decision-making. Making such information more readily and visibly available in a standard form would be possible and make the implications of choices potentially clearer.



Figure 13: Prices, including Unit Price Sizing

4.39 The price of a product generally has a relationship with sales, through the modifiers of affordability and perceived quality. But generally in food, the higher the price the lower the demand. This is the principle after all in the taxation of harmful products e.g. tobacco and the desire to introduce a minimum unit price for alcohol. The intended SDIL is a further illustration of the principle. Depending on how manufacturers respond, there could be a reduction in sales and some product switching, though product reformulation will confound these impacts (which of course is not necessarily a bad outcome). It would be possible to see

variants of these ideas used to increase the base price of some food ingredients (e.g. salt, fat) and products. A potential issue however is the impact this would have on disadvantaged and poorer consumers, the availability of healthy alternatives and the effects on the profits of retailers.

4.40 As seen in section 3, there is an issue over the impact of price adjustments on purchases. Should healthier products be cheaper and promoted and advertised and/or should less healthy products be more expensive and made obviously so? The evidence points to more effects from price reductions, but this raises substantial issues over the cost of this and the burden of who pays for this cost?

4.41 The impact of price on different consumer groups is important due to the issue of affordability and calorie intake. Discounts, price promotions and coupons have been used variously to reduce purchase prices and increase sales. This can lead to stockpiling. Research outcomes are generally inconclusive over long-term impacts of such incentives at a macro level, though point to short-term effects. Price is linked to purchase ability and so more price promotions on less healthy products will impact on the diet of less affluent or deprived consumers, as would a higher base price. Such price promotions operate both within and across categories, but with entrenched routine behaviour are more likely to impact within categories i.e. product switching occurs. Whilst perhaps not explicitly evaluated by consumers there will also be a price to calorie relationship for these products, with unhealthy products providing cheaper calorie intake. Unit prices can reinforce such purchasing patterns.

4.42 Some retailers have extensive experience of promotional couponing and/or incentivisation via loyalty/reward schemes. They also have extensive abilities in the analysis of scheme data on consumers and on what works in altering behaviours, though often on short term horizons.

Loyalty card data is used to inform strategic decisions about store locations and the product selections within stores, but also operates at the individual consumer level with targeted offers to individuals, which depend on their categorisation from their purchase data. Much of this latter activity has been linked to reward points for purchases, often (but not always) of unhealthy products or of volume purchases, though this activity in the UK appears to be reducing. There remains however a sense that loyalty/reward schemes could be harnessed better for public health purposes, both in terms of incentivising healthy consumption and in data analysis and understanding of behaviours and interactions. Small scale and short term experiments of this form have been undertaken and reported in the literature (see the reviews in section 3). This personalisation offers potential attractions in attempting to influence behaviours but can have privacy and ethical issues.

Promotion

4.43 The issue of promotion is arguably the most complex in this discussion. There are many aspects to promotion and it is operated at varying levels by different members of the channel. Food retail promotions are highly prevalent and persistent in the UK, accounting for almost 40% of total retail food and drink purchase (Public Health England 2015). Within Scotland, Food Standards Scotland (2016) suggest that less healthy categories, such as confectionary, are often more frequently purchased on price promotion (around 50% of purchase) compared with healthier categories, such as fruit and vegetables (around 30% of purchase). There is some evidence from market analysts (e.g. Kantar) that in the last 18 months or so there has been a reduction in the proportion of groceries bought on promotion. This has been brought about by retailers changing their promotional strategies (notably reducing X for £Y deals and some reduced emphasis on multibuys), though promotional sales remain an important component of the offer and remain more focused on unhealthy products. Different consumers also react in different ways to the various promotional offers they receive. For example the

prone-ness of different consumers to deals, coupons, loyalty cards and pricing points is well established, though consistency of research results across groups is not as conclusive. This makes discussion and intervention at a detailed level more difficult.

4.44 Obviously retailers and manufacturers undertake general advertising of their products and themselves. Some of this is awareness related whereas other advertising will take the direct form of price promotion. Retailer advertising is often price promotion lead, with unhealthy products often to the fore. This general advertising is most apparent in the larger businesses, but associations of smaller retailers do engage in similar activities from time to time. The placement of this general advertising is altering as new channels emerge; much of the social and digital media, as well as, forms of “brand ambassadors”/relationship selling (i.e. where individuals are incentivised to promote products to peer groups e.g. Red Bull) is not regulated. Traditional rules on advertising and promotion affect mainly traditional media such as print, TV, radio etc. The promotion of some products (e.g. tobacco and alcohol) is constrained in addition to the legal requirements about fairness, equity and sale prices etc. It would be feasible to ban the advertising of whole categories of products, as well as their sponsorship of events, as is done in France with alcohol for example and in the UK with tobacco. The belief is that such bans reduce the visibility and awareness of products thus lowering some of the incentives (here recognition or triggers) to purchase.

4.45 In addition to general advertising, store specific advertising and promotion of products in-store occurs. Some such promotion is basically a general advertisement linking simply to the location of the nearest store or adverts run on local media. In addition however some retailers use fortnightly (or in some cases seasonal) flyers to promote specific offers. These flyers are often distributed directly to local households as well as being available in store. In many cases such flyers are price-led, often with alcohol or soft drinks as the main attractor on

price (Figure 14). This reinforces the ways in which such products/categories are used because of their believed impact on consumer behaviour. The impact of such flyers on sales is not generally known, but would be visible to the businesses involved.



Figure 14: Premier Promotional Flyer

4.46 Within the store, as has been noted above, there are a number of locations that can be used for eye-catching displays. Aisle ends are the obvious example, but large focal displays near the entrance or in 'power' displays are also used. Dump bins, retail ready promotional merchandising units and other visual elements and techniques also play their part in reinforcing the price and other messages and also in focusing attention to drive consumer behaviour (Figure 15). It is generally the case that in all such situations the products that are promoted or offered at a reduced price tend towards the less healthy end (e.g. cake, pastries, biscuits, chocolate, crisps and sugary drinks) of the spectrum. Displays and promotion of fresh fruit and vegetables and other healthier products (e.g. plain starchy carbohydrates and oil rich fish) receive less prominence and attention, due to concerns about shelf life as well as margin attainment.



Figure 15: Cadbury Ready Merchandising Units

4.47 This is not always the case though. A current (June 2016) example of the use of promotional material in store to encourage healthier consumer purchasing is the Tesco “Helpful Little Swaps” campaign. This tries to encourage consumers to seek out and purchase reduced sugar, fat and salt products which have also been reduce din price. Figure 16 shows on shelf examples (from a “power aisle”), but other displays are also being used in store. Tesco will know the success or otherwise of this campaign and what promotions worked best.



Figure 16: Tesco "Helpful Little Swaps" Promotion

4.48 On occasions the price promotion at such “hot-spots” in the store are variants of price competition by discounting. Such price promotions often take a variety of forms including Buy One Get One Free (BOGOF), other multi-purchase or multipack discounts (Figures 17), basic discount offers, cross product purchasing including meal deals (Figure 18) and other such techniques. The intention is obviously to drive purchase through the perception of price and value and combinations thereof. The balance across the various techniques appears to be shifting in the UK away from BOGOFs, possibly in recognition of adverse publicity around waste and unit prices, though also due to competitive impacts e.g. from the discounters. As with other price promotions, the dominant products utilised are those that tend to be

unhealthy. The overall effect is the promotion of routine and impulse unhealthy purchases through the retail context.



Figure 17: Promotional Offer 3 for £10



Figure 18: Tesco Meal Deal (Wales)

4.49 In addition to the concern about the range of products incentivised or promoted to enhance purchase, concern has also been expressed that such techniques lead to the increase in food waste at the household level. By encouraging multi buys or super-sized packs of some products it is argued that as consumption does not keep up with purchase, so products have to be thrown away. For basic household or “dry grocery” products (e.g. cans, tins, packets) this is less of a problem, but for some items it can be an issue. However this can be overstated as the prevalence of offers overall appears not to be on time sensitive produce or products i.e. there are fewer offers on fresh, perishable items, although date coded or perishable items are often marked down at the end of shelf life. For some unhealthy food

products bought on promotion, availability in the home is understood to lead to more consumption in a shorter time span e.g. biscuits, crisps, soft drinks.

4.50 Promotional activity of these forms has been the subject of some action to curtail their usage. Changes to alcohol licensing laws/times and the abolition of discounting on alcohol has altered the retail landscape, including in meal deals in Scotland (due to time restrictions on alcohol sales). The principle is thus there in terms of curtailing the ability to promote or cross-promote as well as reducing discounting for products that are unhealthy

4.51 One of the issues that has received some indirect coverage in the media (e.g. via some of Jamie Oliver's programmes) is the ability or otherwise of some consumers to know about how to use products and produce. This is often assumed. In addition to considerations of banning or restrictions on adverse promotions, there is a potential need for enhanced promotion of healthy products and how to use them. Within large retail stores (though it can be done via smaller stores at a very local area) this could take the form of sampling, tasting and other promotional/educational activities (e.g. school breakfast clubs in-store). This does need to be thought through carefully though, as consumer reaction to "being told" what to eat can be adverse.

4.52 Retailing is often perceived as a relatively simple activity due to its ubiquity and that most people experience it as consumers. It is in fact however a remarkably complex business and sector. Large retailers dominate in commercial terms and have clear internal evidence of "what works". Smaller retailers have increasingly co-operated to compete. For consumers the in-store environment is a complex context which conditions purchases and eventually consumption. Navigating this context depends on individual circumstances, attitudes and behaviours. Getting consumers to alter their diet and health thus depends on altering the

choice architecture and context and providing consumers with a better understanding of the consequences of their decisions.

5 Potential Interventions to Encourage Healthy Purchasing

5.1 The previous sections of this report have outlined the current literature around consumer decision-making in a retail context and how retail works in terms of in store activities. This has described a landscape in which potential interventions to the retail in-store offering could impact consumer decision-taking, purchasing and consumption with the aim of generating a healthier situation at the population and the individual level. However, whilst such interventions or “levers” or nudges can be identified, there remain questions over their acceptability and their impact on the sector and on individual retailers and retail outlets. It is recognised that this subject attracts polarised views from consumers and consumer advocacy and other groups. These views take many forms but can be summarised as the drawing of lines between individual freedoms and societal capabilities and capacities, but also between regulation and nudges (Guldborg Hansen et al 2017). It is also worth noting, though not considered here further, that boundary effects from Scottish only actions are inevitable.

5.2 This section therefore begins by considering four macro issues:

- Individual vs societal considerations;
- Retailing vs other consumption sites;
- Sector vs company vs store levels;
- ‘Real’ vs “Virtual” retailing.

Individual vs Societal Considerations

5.3 The tobacco and alcohol debates (in the latter case minimum unit pricing as well as the restrictions of the Alcohol Act 2010) have come up against personal freedom and choice as part of the arguments against regulatory intervention. Similar concerns emerge in the issue of diet and health. As the products likely to be concerned are not illegal and as the choice to consume them or not is a personal one, why should the state intervene? Shopping at a

supermarket is the epitome of personal freedom. Intervention would be characterised as the worst excesses of the “nanny state” interfering to tell individuals what they can and can not purchase and consume.

5.4 The counter argument to that is that individuals have been shown at a population level and in individual cases to be unable/unwilling to make the choices most beneficial to their health and well-being. Despite years of education, some voluntary changes in product formulation and a wider healthy product choice availability, diet and health, as shown frequently by the FSS, have not improved in Scotland. The societal impact of this in terms of the stress and costs on the health and other social services is now so great that intervention both of a direct form (e.g. regulations, tax and levy) and other forms (e.g. nudging) to alter the obesogenic environment and to reduce unhealthy products’ visibility, accessibility and opportunity, must be considered. Voluntary codes and self-regulation have proved too ineffective or too slow to produce sufficient change.

5.5 This report does not seek to resolve these arguments and these tensions, but simply recognises that these debates will become part of any future implementation of any interventions suggested here.

Retailing vs Other Consumption Sites

5.6 This report covers the purchasing (and implied consumption) of healthier products by consumers in the retail environment. The broad aim that leads to this report is the FSS desire (and that of the Scottish Government) for change in the whole Scottish diet. Whilst this report is on retailing, outcomes can not solely be applied to the retail sector. Not all the criticisms for the lack of change can be placed on the retail environment, partly because the sector is in competition with others for consumer spending on food. Whilst most purchasing and thus

consumption occurs through the retail store, eating out and other consumption sites are increasing in scope, scale and impact and contribute substantially to the overall dietary situation (e.g. through portion sizes, super-sizing drinks, added calories etc). This means that we need to consider the total intake of for example sugar, salt, saturated fats and not just that obtained through retailing. There is little to no benefit of reducing intake of these from retail sources simply to replace them with similar or increased intake from other sources and consumption sites e.g. cafes, restaurants, workplace canteens etc. Consideration is therefore needed over how interventions are constructed and their wider implications, with a need to apply any concepts and lessons to these other consumption sites.

- 5.7 This is important in terms of acceptability of intervention at the retail sector level. There should not be a sense that the retail sector is being “singled out”, despite it being a large site for the purchasing of food. In addition to the likely failure of interventions if only partially applied, the retail sector will mount a sustained campaign of opposition to intervention. This will likely be based on notions of unfairness, but also stem from a feeling across the sector that it has been singularly blamed and affected adversely by government policies. The retail sector already feels battered by the cumulative cost impacts that have affected it recently. Issues of rates, rents, pension changes, apprenticeship levies, large store and large property tax, minimum wages and national living wage increases are all identified as particularly affecting this sector and causing a crisis in its sustainability. Further examples, including waste levies and deposit return schemes, add to the sense of a sector being “under attack” and especially at the convenience store end of the size spectrum. Curtailing what can be sold and how it is promoted will undoubtedly be strongly resisted by the retail sector, ever the more so if restrictions apply only to the retail sector.

Sector vs Company vs Store

5.8 The retail grocery sector is highly competitive in Scotland. It contains all of the leading retailers in the UK sector and is subject to considerable scrutiny by UK regulators and the media. Every day individual consumers make decisions about which store and company to patronise. As such the sector is very mindful of the need to be competitive and to be seen to be competitive. The degree of sector competition has risen in recent years, though it is the case that the multiple retailers (i.e. the 'big 4' especially) dominate their independent and cooperative competition. Market entry (such as that of Lidl and Aldi and Waitrose in Scotland) and locational shifting (towards urban and convenience locations and away from out of town superstore formats) is apparent in the sector, though for an individual independent shop, competing against some of the world's largest businesses, it is always going to be tough. The internet and its bringing of potentially global purchasing opportunities adds to the challenge. Whilst organisations compete at the national (and global) level they operate and interact with customers at the local level. Consumers choose amongst stores in a locality and around their movements and journeys.

5.9 Where the sector becomes especially nervous is over any accusation that it acts as a cartel or in collusion. Evidence of any such action is very scarce, albeit prices of competitors, especially on what are viewed as key or core items, are closely watched at a national and a local level. Prices can be seen to be very similar across companies and stores, particularly because these are visible and readily changeable cues and actions. The internet has enabled these comparisons to become even more visible.

5.10 Thus, whilst some retailers may be willing to take action to assist in healthy behaviour e.g. higher prices on alcohol, they refrain from so doing as they believe either others would not

make the same price rises and thus they would suffer an adverse consumer reaction (and possibly adverse media reaction) and lose sales and profits or if all did it collectively, they would be considered to be acting against the consumer interest (which tends to be judged on price alone). Retailers, in the main, might not be averse to higher alcohol prices through minimum unit pricing for example, or for other sector interventions, but only if this was done at a sector rather than a company level, and imposed through regulation. Not all retailers do feel this, believing that such interference is unwarranted and that price increases will dampen purchasing, but many players could be happy enough with a level playing field. They are unable to construct this amongst themselves however, for fear of being deemed anti-competitive. This does mean that interventions have to be constructed at the level of the sector. The degree of competition in the sector also implies that voluntary agreements are far less likely to have strength, longevity and thus impact.

- 5.11 The retail sector is comprised of many competitors and an enormous breadth of scale at the organisational (company) and the operational (shop) levels. This thus raises an issue over the potential applicability of any interventions. Should they apply to all stores and all companies? If the answer to this is yes, then this may restrict the options. The problem is that some interventions might work at the level of a superstore but could not work at the level of the smallest shop or convenience store. It thus becomes problematic to think about some interventions being implemented without impacting competition and potentially the sustainability of individual outlets and businesses. Some shops are of such a small size that concepts and constructs such as checkout areas, aisle-ends, power aisles, merchandise ready units etc are essentially meaningless. How can such concepts apply in a c12m² food retailer and how could regulation on the sector work in such circumstances? But, limiting regulation to large stores, despite their continuing importance, might be problematic as well as less effective overall.

'Real' vs 'Virtual' Retailing

5.12 The focus of this report has been on the in-store retail setting and the potential interventions to alter the choice architecture. However, as has been identified at various points, the sector itself is transforming, particularly in regard to the penetration and use of the internet as a channel of distribution and purchase mechanism. Grocery internet retailing is now an accepted norm. The balance between 'real' and 'virtual' stores has already come under scrutiny e.g. the issues of business rates, costs and tax advantages. Companies such as Amazon (now moving into food) are seen by many as having unfair advantages.

5.13 The issue this raises for this report is over the potential for any of the identified in-store interventions to be applied also to internet based retailing. If interventions only apply in-store, then store based retailers will perceive further unfairness and consumers may be able to circumvent any impacts by purchasing online rather than in-store. Whilst inconvenient this could be attractive for some consumers, though it is recognised that physical store retailing remains the dominant form. Physical shops should not be further disadvantaged with respect to internet shops.

Potential Interventions: Action, Rationale, Impact and Barriers

5.14 Bearing these issues in mind, an appropriate way to consider potential interventions and levers is by way of the framework from section 4 and considering the possible actions, rationale, impacts and barriers that are likely to arise. This is undertaken in Table 5.1. It is not proposed to discuss all aspects of this table here, as it is intended to be able to stand-alone and be self-explanatory. The table emphasises the more regulatory approach to choice architecture, as opposed to relying alone on the more positive nudging approach summarised

by Wansink (2017). This is in part due to the persistence of issues with the Scottish diet and the difficulty of perceiving voluntary actions as having sufficient impact. Regulatory intervention can be focused on positive nudging as well as negative restrictions.

5.15 Table 5.1 provides an extensive consideration of some of the possibilities suggested via the literature and by analysis of the consumer-retailer interaction and consumer decision-making. Some of these interventions involve new legislation and may well be resisted as interference in legitimate retailer (and in some cases manufacturer) operations. The most likely interventions to have potential are those that alter the choice set for consumers, often without them being aware. This suggests a focus on product reformulation and sizing as well as nudging activities. This though needs to be combined with a much sharper focus on information provision and a reduction in the confusion and mystification that abounds. Additionally, the balance of activities that are undertaken for healthy as opposed to unhealthy products needs to be reconsidered, probably through some form of legislation (including potentially through enhanced licensing or registration). This is not likely to be welcomed by the sector and there are operational and compliance difficulties and costs to be overcome as well. Whilst not explicitly identified in the table, but as noted above, there is an issue over the extent to which policy changes for the in-store environment could be made to apply to internet operations.

Table 5.1 Action, Rationale, Impact and Barriers

TOPIC	POSSIBLE ACTIONS	RATIONALE	POTENTIAL IMPACT	POTENTIAL BARRIERS
PRODUCT				
Product Reformulation	Levies on the amount of salt and saturated fats, in the same way as sugar, could be introduced and the SDIL extended. Changes to information for consumers (e.g. lower levels for traffic lights, clearer visual information) may also be used to drive reformulation.	The levels of salt, sugar and saturated fats in products remain high though there has been some movement, especially in the sugar sweetened drink sector given the introduction of the SDIL. Levies on other input ingredients would seem likely to have a similar effect and accelerate change. Other stimuli could include the reduction in proportions of intake in the categories under the 'traffic light' scheme. Voluntary actions, whilst having some impact, have not been fast enough or deep enough to produce change.	The imminent arrival of the SDIL has produced reformulation and more extensive and advanced promotion of 'lite' beverages. Publicity around the issue over a sustained period may well account for some consumer changes in purchasing. Price pressure and increased awareness are potential outcomes decreasing purchase. In some cases changes may not be discernible by consumers.	There will be stronger and more widespread opposition to these levies than for sugar, given the breadth of products affected. Manufacturers may seek to pass on the costs given the proportion of product composition involved, which is different to the situation with sugar sweetened beverages.
Pack Sizes/Serving Sizes/Multibuys	For certain products there could be legal definitions of standard sizes, which would accord more closely with serving sizes. Multiples or multibuys could be restricted to a set number of product items e.g. maximum of 6 in any one package or removed entirely.	The tendency to have a disparity between pack and serving sizes and to see multibuys as standard packages, as well as evidence of supersizing, all indicate that 'standard' sizing is reducing in prevalence. There is also variability in what is a "standard" size. Reducing the opportunity to easily purchase large volumes may make consumers think about their real and immediate needs rather than routine stockpiling.	The impact would be mainly around making it more difficult for consumers to 'pick up' a large supply. It would not stop them but might make them think. The difficulty would be in framing this and avoiding complications in operations e.g. when is a unit size a package? Standard size specifications might be an alternative route, specifying standard sizes for more products. Standardisation around pack and serving sizes should aid diet and calorie intake.	Manufacturers and retailers would resist interference in their ability to design product sizes and package unit sizing. In the current climate of product downsizing/shrinking, they would also see their room for manoeuvre being constrained. Specifying the detail would be a major undertaking, but selecting key products might be a way forward.
Information	Regulations could be amended such that on pack information is both standardised and enhanced. This could also provide a minimum proportion coverage for this information on a pack, thus making the information more	Consumers are influenced by the information they receive and some of this is carried on the product itself. Some of this information is regulated, but it is arguable whether the shape and size is sufficiently visible to have as much effect	Better and more visible information helps consumers make better choices. Currently there is a high degree of misunderstanding or even ignorance of 'true' levels, and implications of sizes and intakes presented. The obfuscation of comparisons would be	Whilst there are regulations in some of these areas, there is a lack in others, and standardisation is not prevalent. Manufacturers and likely retailers will resist expansion of message space and reduction of promotional space and

TOPIC	POSSIBLE ACTIONS	RATIONALE	POTENTIAL IMPACT	POTENTIAL BARRIERS
	readable/visible and reducing the space for other visual messaging. Calorie and other healthful information could also be reconsidered along both these lines.	as it could. There remains variability in some information provision, which contributes to consumer inaction or indifference.	reduced.	imagery on packs for fear of damaging sales. How much it will be used by consumers is debateable.
PLACE				
Product Placement	There is no regulation on product placement in stores, with the exception of alcohol and tobacco. It would be possible to ban all product displays within a set distance of pay points (checkouts) or entrances. Alternatively a listing of 'positive' products to be allowed at checkouts or at aisle ends could be devised. It is hard to see how on shelf product placements could be affected.	Stores place products in particular places in the store in order to enhance their visibility and sales. Often these products are not the healthiest ones and the places are those of high attraction or dwell times. De-cluttering or rebalancing what is offered could impact what is purchased. Outright restrictions would remove temptation and reduce impulse buys.	Removing impulse purchase temptation would likely cut sales. The impact on entrances may be less than for checkouts, but both are aimed at removing triggers; these of course could be replaced elsewhere in the store, hence the extension to aisle ends. There would be problems implementing 'exclusion' zones in very small stores.	Voluntary actions around checkouts have been introduced by some retailers, but are not fully implemented across the sector, especially in smaller stores. Outright bans would be very difficult to implement given the diversity across the sector. The retail response (mainly by smaller stores) would be negative to such interference. Any focus on aisle ends would be strongly resisted as they drive sales and revenue for manufacturers and retailers alike.
In Store Merchandising / Promotion / Shelving	It would be possible to make all shelving, cabinets and display units neutral (i.e. non-branded or sponsored) and/or more dramatically forbid/ban all stand-alone display units.	In many stores in addition to the hot spots of the checkout and aisle ends, products are displayed on 'sponsored' shelving or cabinets. In soft drinks the obvious examples are the chiller cabinets produced by Coca-Cola and Pepsi. These cabinets are often branded or sponsored directly and are effective in-store advertising. Other non-fixed examples include the store ready merchandising display units for special offers, which have become more visible and prevalent, and product shelving in confectionery aisles. These displays attract consumers and sales.	The removal of soft drink branding from cabinets might reduce the awareness of consumers, but this might only apply to brand rather than product switching. Plain shelving may reduce the acceptability of products, but then these companies also often offer healthy as well as less healthy products. Removing store ready merchandising display units would reduce visibility and awareness of these often unhealthy products.	The impact of such an approach is rather unclear, and may be difficult to implement due to definitions of chillers, adverts etc. Smaller stores have come to rely on such manufacturer/producer part funded shelving to help defray fit out costs. If an impact on brand switching is an aim then restricting such promotion to healthier products might be the potential best impact. There would likely be an adverse reaction from manufacturers engaged in this practice (though not others) and the retailers affected (typically the smaller convenience store chains and units)
Shelf Space Allocation and	Shelf space management is a tool	As consumers are attracted by shelf	Focusing healthy products in the most	It is very hard to see how such an intervention

TOPIC	POSSIBLE ACTIONS	RATIONALE	POTENTIAL IMPACT	POTENTIAL BARRIERS
Positioning	that retailers use to attract consumers. It would be possible to aim for a balance between the allocation and positioning of healthy and less healthy products.	displays, though differentially depending on the level, colour, size etc of the product placement, altering the location of products would potentially interrupt habitual purchasing and rebalance the visual perception of healthy products. It would also change the reference perceptions.	attractive parts of the shelf space allocation would be expected to lead to more purchasing of these products. Removing unhealthy products from these locations might also have an impact.	could be structured given the variety across the sector and the extreme difficulty of promoting such an intrusive intervention into retailer practices and operations.
PRICE				
Unit Pricing	The regulation on unit pricing could be updated and extended. Such a review or recasting of the regulations would need to cover scope, style, sizing, presentation. By extending the scope, standardising the style and increasing the visibility of the unit price viz-a-viz the selling price, consumers could be encouraged to use the unit price more. Unit prices could be made mandatory on packages.	The price of a product has to be displayed. There are also requirements for some products to present the unit price of the product e.g. per litre, per kilogram, etc. This is because the product or package size varies. The presence of a unit price is meant to produce better informed consumers who can then make better value judgements on equivalent prices. The approach in its style and presentation, and its visibility, is often very limited. Increasing the visibility of such messaging will aid consumer decision-making.	The unit price provides consumers with value information. The extension and increase in its positioning could help consumers make better choices. However it could be that for many products larger sizes are the best value so there would be a potential increase in calorie intake, depending on how the product is used. This could ameliorate the benefits.	Consumers do not currently appear to make full use of the existing information around unit prices. This might still be the case even if the messaging was made clearer and more visible, as well as more standardised. Retailers would argue that increasing size of unit pricing on products or on shelf-edges might increase confusion.
Product Pricing	One of the issues is over the differential of pricing between healthy and unhealthy products. Prices could be raised for unhealthy products and/or reduced for healthy products. One mechanism for the former is through increased taxation on unhealthy products, possibly linked to ingredients or on whole classes of products deemed unhealthy. Reducing	Price is seen to be a major component of consumer choice and decisions are made on the absolute as well as the reference price. Altering either or both of these is likely to have an effect on consumer purchasing. Price reductions have been shown to have more impact.	The impact of this lever is intended to reduce the sales of unhealthy products and/or increase the sales of healthy products. The impact would this be to allow individuals and the population at large to "afford" a healthier diet and be put off purchasing (as much) unhealthy products, by the absolute and relative price.	Because this lever affects directly the purchasing of products, retailers and manufactures with high sales of affected products are likely to be very concerned about the threat to their livelihoods. There is a further issue about the effects of price increases on deprived individuals and communities and the differential affordability by groups of consumers. This could affect the least well-off the most. The alternative

TOPIC	POSSIBLE ACTIONS	RATIONALE	POTENTIAL IMPACT	POTENTIAL BARRIERS
	prices for healthy products would require some form of subsidy or reduced taxation of products or classes of products.			of reducing prices for healthy products requires in many instances some form of subsidy for production or sales and thus raises issues of cost and affordability. "Rewarding" established consumers of healthy products also seems an odd approach.
Couponing and Loyalty	Couponing and especially loyalty programmes could be made to balance rewards between healthy and unhealthy products. Rewards could be focused around healthy products and their purchase, with incentives for long-term behavioural switching. Data from such schemes could be required to be provided to link to other personal and health records.	Consumers are incentivised to varying degrees by price and reward. Focusing this on healthy products would aim at enhancing uptake (and awareness) and reducing the uptake of unhealthy products. Data on individuals could be valuable to them as an advice tool or a personal assistant or app. This could assist people wanting to make changes.	If it proved successful then the balance of products promoted and thus purchased would switch, leading to better personal and general outcomes. Use of personal data could add to motivational tools to inform and support consumers in making lifestyle changes and encouraging them to be successful in this.	Making retailers accept the rebalancing of their activities here would be difficult, as it would be where manufacturers are those really subsidising the offer. The costs of subsidising healthy products would be high and resourcing possibly problematic. Retailers are very protective of such personal loyalty data and would be wary of making it available without strong safeguards. There are privacy and ethical issues which would need to be overcome. Retailer 'buy-in' would be needed.
PROMOTIONS				
Promotional Types	Restrictions on what can be said in terms of sale prices, advertising truth and so on are already present. These though tend not to cover the types of promotions that have become the norm. It might be possible to cover these forms of promotions and the scope, scale and time periods they could cover.	As has been noted, the retail food environment is one that is promotion and discount heavy. Many of these promotions are targeted at less healthy products and seek to encourage volume purchase. This is not true for all promotions, but is the case for a large proportion as shown by BOGOFs, Multi-packs etc. Tighter restrictions on what could be allowed might reduce impacts.	The removal or rebalancing of promotional activities would be expected to both reduce purchasing and rebalance across healthy versus less healthy purchasing.	Retailers and manufacturers will resist tighter regulations on pricing, promotion and offers, on the basis of burden of cost and likely impact on sales and consumer satisfaction, as well as potentially leading to a reduction in competition.
Multibuy / Discounts / BOGOFs	The Healthcare Retail Standard in hospitals in Scotland has suggested a way forward to reduce the presence and balance	It has been shown that a large proportion of food purchasing is made on promotion or offer. It is also clear that many of the various promotions	The rebalancing of product presence and promotions and the removal of discount or multibuy price promotions seeks to	As yet the impact of the Healthcare Retail Standard is unproven and legislation would be needed to impose it beyond its current

TOPIC	POSSIBLE ACTIONS	RATIONALE	POTENTIAL IMPACT	POTENTIAL BARRIERS
	of unhealthy products and promotions. It operates at a store level and seeks a balance between healthy/less healthy product lines/categories and promotions. This principle could theoretically be extended to all stores. An alternative would be to ban linked promotions and volume discounts of all forms as has been done with alcohol.	to consumers are on less healthy or unhealthy products. All these promotions, which are aimed at altering price perceptions, encourage the purchase of unhealthy products and also more product than strictly necessary. The Healthcare Retail Standard for hospitals in Scotland seeks to regulate the space and promotions given to healthy as opposed to unhealthy products. This it is argued will reduce purchase and consumption of unhealthy products by making them less prevalent, visible and promoted.	level the playing field across products and to refocus customer attention on the base price and current need. The impact is both a potentially more standard and sterile retail environment but also a reduction in purchasing, stockpiling and consumption. The re-balancing of product availability and promotion will shift purchasing away from current promotional and presentational impacts on purchasing. Reduced visibility will lead to reduced demand for some products, but hopefully increased demand for other products.	setting. Framing this would be a challenge given the diversity of outlets across the sector and the definitional issues that would be likely to ensue. It would be resisted by retailers and manufacturers. It could be linked to food premise registration, or longer term food store licensing. Compliance and monitoring costs for authorities could be high and difficult to implement. Outright bans on price promotions and volume discounts would be less likely to be acceptable than a rebalancing of activities.
Promotional Restrictions	A drastic approach to this would be to ensure that all price promotional activity could only take place at set dates – the approach of a ‘great sale’ rather than continuous sale. This would in essence reinstate the idea of a recommended price below which sales could not be permitted except for given time periods.	The fact that the retail environment seems to be permanently on promotion raises issues about the ways consumers view food purchasing and what is ‘normal’. Restricting all discounts and promotional price activity could alter this.	This would remove a lot of the promotional activity and thus potentially ‘excess’ consumption in the market place. It would also make retail rather more “sterile”.	This would be seen as a gross intrusion in the operation of the market and likely lead to a reduction in sector wide competition. It would be resisted by many including possible the Competition and Markets Authority. Set sale periods would also create operational difficulties for retailers and manufacturers.
Promotional Flyers	If the belief is that these flyers are producing unhealthy consumption then they could either be banned or their content more strongly regulated. Out and out banning would seem to be difficult, so attention could be given to the balance of promotions in each edition of the flyer.	One of the more directly consumer focused promotional activities by some food stores is the production and distribution of promotional flyers. For many smaller contractual chains this occurs on a two or three week cycle with the flyers being delivered locally and/or available in store. These flyers are designed to reinforce local affiliations but often operate through nationally discounted products being advertised. Such	The flyers are understood to increase traffic and sales to stores and thus are viewed as valuable by retailers and suppliers. The rebalancing of promotional activity within them could keep their usefulness to business but help reduce their most harmful effects in terms of unhealthy purchasing.	A problem might be that what precisely makes a flyer and the boundary between a flyer, other free-standing inserts, magazines etc. can be very porous. The costs of these flyers is likely subsidised by manufacturers buying space for their product promotions, and they might withdraw this should their products not be able to be promoted or substitutes found from their healthier range. This might call into question

TOPIC	POSSIBLE ACTIONS	RATIONALE	POTENTIAL IMPACT	POTENTIAL BARRIERS
		flyers tend to promote unhealthy as opposed to healthy products.		the viability of such activity.
Sampling and Tasting	A more positive approach to visibility and awareness might involve enhanced sampling and tasting of healthier products in store. Encouragement rather than regulation would seem to be the appropriate approach.	Consumers may be unaware of some healthy products and what they can do with them. This would seek to improve that situation.	Depending on the uptake, there could be some enhanced purchasing of products and improved knowledge. The scale of this though is likely to be very limited.	Many shopping trips would not be suitable for such interruption and the reaction of consumers could be adverse for a variety of reasons. Retailers would need incentivising in many cases to undertake this. One exception to this might be the extension of such ideas to local breakfast clubs associated with local stores. Some definition and/or subsidy of healthier products might be needed.

5.16 The interventions in Table 5.1 cover a broad range of possibilities, with likely differential impacts, which are as yet not fully researched or understood. Some (in the product area) are general in nature and work across the retail (and other) sector. Others (e.g. on place decisions) are more difficult to imagine in some types of retail stores e.g. very small stores. Where intervention is focused on information and products it may be more acceptable to the retail sector and consumers, but may also have lower effectiveness. Interventions altering basic retail operational practices directly (e.g. promotional and display activities) are more likely to be difficult to achieve seamlessly and without legislation, but may have the larger sustained effects.

6 Conclusions and Recommendations

- 6.1 It is accepted that the Scottish diet has stubbornly refused to improve and that consumer behaviour related to the food environment is a major contributor to this. Questions can thus be legitimately raised over the food environment in Scotland, and in the case of this report, the in-store food retail environment.

- 6.2 There is limited published academic research on direct alterations to the food retail environment aimed at changing consumer decision-making. Studies are emerging but tend to focus on individual elements, short time periods, better information provision around healthy products alone and on the price of such products. There are few comprehensive or radical studies investigating altering the underlying choice architecture which confronts consumers in food retail stores, particularly operating over a sustained period.

- 6.3 The work on consumer decision-making in recent years has focused on aspects of limited interventions to change the visibility, accessibility and availability of products as well as the information that is provided. It is generally recognised that combinations of approaches are needed. Regulatory approaches however always come up against accusations of “nanny state” interference and there are strong arguments around personal freedom versus societal obligations.

- 6.4 It would also appear that much of the research has been undertaken seeking to enhance the position of healthy products. There is an argument that even if this is continued to a high level, the overwhelmingly “toxic” or obesogenic food retail environment would ensure that consumers continued to purchase and consume unhealthy products. Consumer ‘desire’ for unhealthy products has been encouraged and manipulated by the in-store and retail environment.

- 6.5 The retail sector is a highly competitive one, is both large and complicated and has a position of dominance over the supply chain. Within the sector the variations are considerable both in organisational (company) and operational unit (store) aspects. The sector is also under extreme cost pressures and is in the throes of a period of transformation and turbulence in the UK (which started some 18 years or so ago and still has some way to run).
- 6.6 The in-store environment is a battleground for manufacturers and retailers to obtain and maintain consumer purchasing generally and specifically for their brands. The context for in-store decision making is thus a constructed landscape of competing pressures and presences. Customers react in different ways to this, depending on their needs, wants, shopping motivations, knowledge, understanding, capabilities and so on. This environment or context sees them overtly and subliminally bombarded with subtle and not so subtle cues, promotional activities, information and other stimuli. Overall though this context continuously reinforces purchasing behaviour focused on unhealthy products and thus unhealthy diet, placing the onus to combat this on to the individual.
- 6.7 In order to assist consumers to make better choices, there needs to be a reduction in this complexity and a rebalancing of the stimuli. Simply enhancing healthy product stimuli and relying on the individual is not likely to work. For effects to be substantial, rapid and sustained there needs to be more control on the whole range of stimuli and a more level playing field between healthy and unhealthy products. This will undoubtedly face opposition from retailers and manufacturers, as well as some consumer advocacy groups.
- 6.8 We conclude that the current context for consumer choice in-store is (amongst other influences and situations) affecting the health and diet of consumers in Scotland. Voluntary

and self-regulatory approaches or relying on consumers to make “good” decisions are not having sufficient impact. There is need therefore to utilise a range of the interventions outlined in Table 5.1. It may be necessary to regulate to make the changes have real impact. This could be done in terms of product reformulation and sizing as well as stronger legally enforceable alterations to information provision. Such changes will alter the choice set for consumers in store. Beyond this, there needs to be action to rebalance the provision and promotion of products in-store and consideration given to steps to alter the differential pricing between healthy and unhealthy products. Such interventions are more problematic for retailers as they interfere in core retail activities, and in a low margin, high volume, business model, may raise issues of outlet or firm sustainability.

6.9 It would be good to trial various approaches, to provide a firmer evidence base of impacts, though this could be difficult to achieve and potentially time-consuming – or depending on your view point, delaying.

6.10 This report has covered the in-store setting of the retail environment. As noted in the introduction, we have thus not fully considered sector level interactions or interventions that could alter the situation more widely and dramatically. In terms of operating some of the interventions in Table 5.1, current registration practices could be explored to scope out the potential to add conditions, though there would be costs of compliance to consider. This mechanism might restrict impact to only certain stores and could have possible unintended consequences on some. Nonetheless as a mechanism to allow tighter conditions on behaviours of retailers it needs to be considered. Alternatively some of the interventions could be associated with the introduction of a formal and more regulated licensing scheme for all food retail outlets, going beyond the current requirement to locally register food stores for environmental health reasons. Licensing (or an extension of the approval scheme for food

handling) or registration (as with tobacco and alcohol) could be a way of ensuring compliance with some of the retail level interventions outlined in Table 5.1. Such an altered scheme would begin to open up the potential for sector wide, locationally specific or otherwise targeted restrictions on the proportionate presence and promotion of unhealthy products.

6.11 Going even further, with the exception of alcohol, there is little to no restriction on opening hours of food shops at a national level. One way of altering patterns of behaviour would be to reconsider (through licensing or more directly) the opening hours of food stores. The reduction in hours of sales for alcohol shows the way in which this could operate for other product lines or even specific stores in specific settings e.g. around schools. Such macro-environment suggestions are beyond the scope of the report to evaluate, and would be resisted and resented by the sector and by consumers, but could be kept in reserve should other voluntary or other interventionist approaches fail.

6.12 There remains a challenge over the evidence base on which such actions rely and the likely general and specific outcomes in terms of diet and health and the inequalities that are present. The evidence base to date is insufficiently strong to be certain about outcomes, but conversely it is certain that continuing the current trajectory is not an option. There are small scale studies and emerging evidence on impacts of isolated interventions; the true test and impact though will be felt by making radical changes to the situation, at the level of the sector.

6.13 There are thus a number of recommendations as ways forward:

- The lessons of the SDIL should be applied more widely, with the aim of encouraging product reformulation and associated product sizing;

- Information provision needs to be enhanced, regularised, standardised and made more visible and legally enforceable, with the aim of aiding consumer decision-making, increasing awareness of health risks and reducing confusion via imagery and promotional messages;
- Attempts should be made to engage a major and/or smaller retailer in developing trial stores to test out the alternatives, cumulative nudging, positive, regulatory and restrictive ideas contained in this report, combined with associated multi-disciplinary academic evaluations;
- Consideration should be given to the introduction of a Food Retail Standard (along the lines of the Healthcare Retail Standard) to rebalance promotional and provisioning activities between healthy and unhealthy products. This will require considerable thought over the detail and applicability across stores in the sector, its applicability to the internet and its costs of compliance, and may involve enhanced registration and licensing procedures;
- The retail sector should not be regulated on in isolation and all interventions need to consider impacts and relationships both within and across sectors.

6.14 This is a sector and a topic where such overt regulation is not likely to be welcomed or easy. Impacts are most likely to work by affecting what is in front of the consumer i.e. the choice architecture informed by information, economic (price) cues and visibility/accessibility. To date this architecture has been designed and controlled by the manufacturers and the retailers. It is reasonable to question whether this can continue. A focus on the product itself, the information it carries and the promotional landscape are likely to be most impactful in altering this context or choice architecture, though could be supported by incentive, information and educational activities. Engagement with the retail sector will be required, though the difficulties should not be underestimated, given the nature of the interventions.

Sector bodies (e.g. Scottish Grocers Federation, Scottish Retail Consortium. Food and Drink Federation Scotland) remain the most appropriate ways into this, given the sector/business/retailers issues outlined earlier.

6.15 The issues raised in this report require a new approach by retailers to some of their basic operating models. This is a very difficult “ask”, especially at a time of sector pressure and considerable turbulence, together with “leaky” systems seeing consumer spending transference to the internet, internationally and to alternative sectors e.g. food and beverage and out of home consumption. Interventions, which cut across sector boundaries are thus more likely to find favour and to have an impact overall. It has to be reiterated that the retail shop is not the only place of food purchase and consumption. If activity occurs to change the choice architecture within retail stores, then these other consumption sites should also be required to be subject to similar or equivalent interventions over the products they sell, the information they provide and the promotions they offer. Retailing is only a part of the problem, as well as only part of the potential solution.

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