Consumer responses to food labelling: A rapid evidence review

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Executive Summary

The Food Standards Agency (FSA) aims to be a modern and accountable regulator. As part of this, the FSA is considering how labelling can support the public health and consumer protection agenda. As a result, the FSA aims to understand if, and how (when they do) people use food labels to make consumer choices. In order to prepare for this rapid review, the search strategy adopted involved entering specific terms (for example nutritional labelling, eco labelling, health claims) as well as more general terms (behavioural change methods, behavioural change techniques, food labelling) into Google Scholar, Web of Science, ResearchGate, as well as the FSA webpages. This generated over 450,000 articles. To reduce this to a manageable set of articles, and to focus the review on empirical work, the sample was further reduced based on titles and abstracts, so that the review only included empirical studies and meta-analyses (years between 2000 to 2021). Moreover, the authors of this review have expertise in several core areas of this review, which was applied to the filtering process so that the most relevant empirical findings were included. Importantly, studies included were those which focused on labelling as a behaviour change intervention, rather than from a food safety/transparency perspective(for instance, in relation to best before or use by dates). The conclusions about labelling are in the context of the current labelling and policy landscape. The review does not consider the question of how food information can be developed and deployed alongside other interventions in future to better influence consumer behaviour.

This rapid review addresses four questions: (1) What impact (if any) does food labelling have on consumer decision-making? (2) What are the most persuasive aspects of food labelling that impact consumer decision-making? (2a) What are the reasons behind the persuasiveness of

some food labelling to change behaviour? (2b) Which factors limit the persuasiveness of food labelling on behaviour change?

To contextualise the empirical findings that have been reviewed, the early part of this review provides details of core psychological research and theoretical insights for understanding consumer behaviour. In order to understand the potential impact of labelling, it is important to establish what the consumer landscape is when making food purchasing decisions (for example what people typically attend to, how long they have to attend to food labelling information, their shopping habits), and what the key motivational drivers are for making these decisions. In addition, it is important to establish the theoretical basis of behavioural change, and what claims are made, along with the techniques used to encourage behavioural change. In the language of behavioural change, labelling is a form of information provision. Informed by behavioural change theories, the rationale for treating labelling as a behavioural change intervention is that by providing decision-makers with a succinct and easy to process symbol that encapsulates core information, this can out-compete other information in the informational environment so as to persuade a choice in a predictable and beneficial direction. For example, presenting nutritional details of a food product in the form of traffic lights from red (indicating unhealthy) to green (indicating healthy) is designed to help decision-makers to gauge the nutritional value of food products, so as to select the products that are healthiest.

In the main, the answers to the four central questions that the findings from the reviewed literature addressed are as follows:

(1) What impact (if any) does food labelling have on consumer decision-making? In laboratory and field studies which approximate real life consumer experiences, the role that food labels play in persuading decision-makers choices is limited. A subsidiary question that this finding raises is, why is food labelling limited in its persuasive value? Based on the work reviewed, there are five reasons: a) decision-makers are trading off all other information on food products against price, value for money, and quality, which are consistently the most salient information that impacts consumer food choices; b) the informational profile of any food item contains a multitude of information and multiple labels that compete with marketing information for the most salient space on the front of packaging; c) if extended out to other food consumption environments (for example takeaways, lunch time canteens, restaurants), decision-makers' selection of food from menus is driven by social factors that take precedent over factors communicated in food labels (for example sustainability, calorific content) and other information on menus; d) consumers struggle to interpret specific labelling information, either because there is ambiguity in what the labels communicate, or because consumers have varied interpretations of what the labels mean, e) there are a multitude of labelling elements contained on any single prepackaged food product, and consumers are time efficient in the amount of attention they dedicate to reading labels, which is why they likely focus on the most salient information (for example price, brand, promotional offers).

(2) What are the most persuasive aspects of food labelling that impact consumer decision-making? Given that the findings addressing question 1 suggest that in the main food labelling (for example nutritional content, sustainable consumption) has limited behavioural impact, this has implications for answering question 2 and 2a. What the findings reveal is that, when studied under artificial laboratory conditions, food labels can be instructive in directing behavioural change. For instance, traffic light labelling methods that indicate the nutritional value of food items can be shown to inform hypothetical food choices (for example, that is, after presentation of a traffic light system, compared to before, people change towards more nutritional options). However, these findings rarely generalise to real world shopping contexts. Nonetheless, when surveyed, people report on aspects of food labels that could be improved, such as making them uniform across products, and standardised across countries. For instance, the range of labelling that is referred to in the literature, and that consumers take to collectively mean sustainable or environmentally friendly include: "eco-friendly", "environmental safety", "recyclable", "biodegradable", "ozone-

friendly", "carbon-trust", "low-pesticides", "fair-trade", "animal-welfare", "organic", "free-range". For each term there are different labels included on food products, each of which have different associations with regards to sustainable consumption.

(2a) What are the reasons behind the persuasiveness of some food labelling to change behaviour? In the reviewed work, which includes meta-analytic studies, systematic reviews, as well as individual empirical studies examining the direct impact of a particular label on consumer behaviour, findings all point to the fact that: a) food labelling does not reliably generate behavioural change in real world decision contexts, outside of laborary context (where this is also unreliable), and outside of labels carrying information about price, brand, promotional offers. Therefore, the reason that labels on food products have any persuasive function in influencing consumer choice behaviour primarily concerns information that informs economic decisions (for example price, value for money, and quality). Moreover, where other food labels are persuasive, they inform consumer choices for particular groups of consumers (for example, safety related labelling such as allergens for food hypersensitive consumers). All of this points to a general conclusion that consumer choices concerning food are motivated primarily by economic factors, and where safety is a concern (for example food allergens).

(2b) Which factors limit the persuasiveness of food labelling on behaviour change? The range of factors that present barriers to the persuasive function of food labels can be divided into those that generalise across the food labelling landscape, and those that are specific to particular types of food labels. As discussed, labels that contain information that informs economic decisions (for example price, value for money, and quality) are highly persuasive. This means that other labels that inform the consumer about the nutritional content, health claims, sustainability, and safety of food products competes with information consumers priortise when making choices regarding food consumption. This also extends to front of pack information, particularly promotional offers, branding, and other marketing methods that are shown to be highly persuasive.

In conclusion, any effort to promote healthy, safe and sustainable diets requires acceptance of the limitations of food labelling to substantively perform a behavioural change function. That is, food labelling alone is unlikely to lead to any substantive changes in behaviour for the reason that in any consumer context, a multitude of factors will inform a consumer's choice behaviour, along with the broader contextual factors (for example social values, cultural norms, socio-economic circumstances). Efforts to promote healthy, safe and sustainable diets require a significant co-ordinated effort from multiple disciplines and use of multiple interventions (i.e. choice-preserving (behavioural change interventions) and choice-incentivising (typical regulatory instruments)). This is not to say that there is no role for food labelling, for instance when it comes to food safety, their function is to communicate essential details and so the priority should be on devising the most accessible ways of communicating such details of consequence. Moreover, the quality of food labels is likely to become an even more important consideration for the future, given the probable use of recommender and automated decision-support systems which will require accurate labels to aid consumer decision-making.