

Comprehension and use of UK
nutrition signpost labelling
schemes.

Initial insights from the Qualitative Phase



BRITISH MARKET RESEARCH BUREAU

Comprehension and use of UK nutrition signpost labelling schemes.

Interim report on Qualitative Phase

Prepared for the Food Standards Agency.

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Sue Clegg and Sinead Lawless

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1 Key Findings

The qualitative research found several areas of concern around people's comprehension of FOP labels. These are reported in detail in the following sections, and we summarise them below.

1.1 Traffic Light labels

- When understood, the TL colours were very helpful to participants in providing an instant visual of the level of nutrients within a product, via the use of colour (Red, Amber and Green).
- There were, however, misinterpretations or false assumptions amongst people about what the TL colours meant:
 - Assuming that TL colours were not meaningful in any way
 - Assuming that TL colours were nutrient related (for example, believing that Saturated Fats were always shown in red), as in Pastel GDAs
 - Assuming that red, orange and green were used to make the label stand out on the packaging
- Wheel shaped TLs could be confused with pie charts, with wedge size thought to be meaningful.

1.2 GDA labels

- There was confusion about whether/how GDAs applied to everyone, or whether there were different GDAs for different people (gender, age, body type etc.)
- A key theme in the research was that people thought they had to do some mathematical manipulation with GDAs, and found this off-putting. This was especially evident in relation to portion sizes, where GDA labels were generally found to be particularly hard to use
- There was confusion about the 'meaning' of the colours used in GDA labels; whilst both pastel and monochrome GDA labels caused such confusion it was more apparent in pastel labels. There were people who understood the traffic light system and who thought that GDA colours had similar meanings, assuming the 'cooler' colours were applied to nutrients that were low
- There were also issues around the percentages used on GDA labels. Participants could interpret these as meaning that, for example, 17% of the

product was salt or that all the percentages on the FOP label must total 100% and when this was not the case, participants could assume that other nutritional data was missing

- Finally some people did not understand terminology such as GDA or Sat. Fats. This lack of understanding of terms and acronyms can lead to people being uninterested in, or being put off from using, FOP labels

1.3 Portion sizes

- Portion sizes caused confusion on all label types, both when comparisons between products were being made, and in single items. Examples of this are:
 - Not knowing whether, for example, 30g of cereal was a 'normal' portion for them¹
 - Inconsistency between manufactures definitions of portions size varying from one product to another (particularly found within breakfast cereals)
 - Where single portion products were being consumed e.g. a sandwich, can of soup or bottle of fizzy drink, participants would assume the nutritional information was for the whole serving (as this serving was for one person). However, in some cases this was not so and the FOP label was detailing nutritional information for only half the product. This could not only confuse the participants but may also leave them feeling 'cheated'

¹ See also *"Investigation of Consumer Understanding of Sugars Labelling on front of pack nutritional signposts, with specific reference to breakfast cereals"* COI Report for Food Standards Agency, May 2007, which also found that portion size was problematic. www.food.gov.uk/multimedia/pdfs/cerealsreport.pdf

2 Introduction

2.1 Background and Qualitative Study

The Food Standards Agency commissioned BMRB, in collaboration with the Food, Consumer, Behaviour and Health Research Centre at the University of Surrey (FCBH), to undertake research to assess the comprehension and use of UK front of pack nutrition signpost labelling schemes (FOP labels).

The study is being led by an independent Project Management Panel (PMP); a small group of independent experts in nutritional and social sciences, including market research. This panel is chaired by Sue Duncan, former Head of the Government Social Science Research Unit. The PMP are responsible for the integrity and robustness of the study and monitoring the progress of the research.

There were two overarching aims to this study:

- To understand how consumers use FOP labels in real life contexts
- To determine how well individual signpost schemes enable consumers to correctly interpret levels of key nutrients

To meet these aims BMRB designed a study using both qualitative and quantitative research. The qualitative research sought to look at usage of FOP labels in real life contexts, that is, in retail environments and in people's homes. In total there were 100 accompanied shops, 50 in-store bag audits and 50 in home bag audits. The accompanied shops undertaken for this research used both observation and interview techniques, with researchers using a topic guide to explore with participants how and why they were making purchasing decisions about food and drink items, and observing their behaviour whilst the decisions were being made.

After participants had completed their planned shopping they were asked to take part in a short 'task', during which they were asked to choose the 'healthiest' product from a range, for example, from the pizzas on display in a shop. There were no right or wrong answers for this exercise; it was used to explore with people how they made judgments about food items.

For more detail of the methods used in the qualitative research see Appendices 1, 2 and 3.

The main objectives of the qualitative element of the study were:

- To evaluate the impact of FOP labels on purchasing behaviour and consumer knowledge

- To understand whether/how FOP labels are used by people in their homes in relation to meal planning
- To assist with the design of the quantitative work by commenting on issues affecting the design of the quantitative survey

The main stages of the qualitative work were completed in the early summer of 2008. At the time of writing, the quantitative work was in development, with the aim of focussing on people's understanding and comprehension of FOP labels.

2.2 Label types

There are three main FOP labelling approaches used in the UK, and these were utilised in the research:

- Guideline Daily Amount (GDA) schemes providing information on the amount of nutrient per serving of product as a percentage of GDA²
- Traffic Light colour (TL) coded schemes giving the amount of nutrient per 100g of product³
- Hybrid schemes which provide both a traffic light colour code and percentage of GDA

It should be noted that the three types of labelling were not being tested against each other, nor were participants asked for their label preferences, rather the research sought to examine and understand how people used the different elements of the schemes.

² GDAs for energy, fat and saturates were initially developed by the Institute of Grocery Distribution (IGD 1998). In 2005 these were reviewed and expanded to include GDAs for carbohydrates, sugars, protein, salt and fibre for adults and specific GDAs for children for defined age groups (IGD 2005)

³ The Food Standards Agency's (2007) current guidance provides the nutritional criteria that determine the colour banding. Red, amber or green colour coding provides 'at a glance' information on the level (i.e. whether high, medium or low) of individual nutrients in the product. The Food Standards Agency does not recommend that TL colours should not be used for energy, but has not set criteria for this. However, some companies have developed TL colour coding criteria for energy which they are using for their own brand products.

2.3 Report outline

It should be noted that this report is based solely on an initial analysis of the qualitative data and provides a synopsis of the major themes emerging. Specifically, key themes were explored as a priority so that the findings could assist with the development of the next stage of the study, the quantitative survey. A further, full, analysis of the qualitative data will be undertaken and will be presented in a final report on the study, which will integrate all elements of the research. It should be noted that such analysis might throw additional light on the issues raised here, or could contest some issues.

The FCBH team reviewed relevant literature, to ensure that the research design could be fully informed by earlier research experience. FCBH's proposals were considered alongside relevant findings from the qualitative data in making decisions about the final quantitative research design. All the information considered and details of the judgements that were made in coming to a decision, are included in the Scientific Rationale and Design⁴ document.

The analysis of the qualitative material undertaken for this report, therefore, specifically looked at the following themes:

- Text alongside Traffic Lights (TLs) – i.e. High/Med/Low
- Inclusion/exclusion of 'energy' (calories) on FOP labels
- Presentational elements – direction, shape and colour
- Context in which label is presented – e.g. within general product information such offers, promotions and health claims on packaging
- Product category e.g. confectionary, dairy etc.
- Whether/how people use FOP labels to make comparisons between similar products e.g. ready meals
- Whether/how people use FOP labels on single products
- Whether/how people use GDAs/TLs/Hybrids for different purposes or in different ways
- Whether/how people use FOP labels in the context of diet or meal planning

⁴ For full details see: Food Standards Agency (2008) *Comprehension and use of UK nutrition signpost labelling schemes: Scientific Rationale and Design*. London: Food Standards Agency

- Any other information on how FOP labels are used which could inform the quantitative research
- Any differences of use of FOP labels between key demographic groups
- Other issues arising from the analysis

Each of these is discussed in the following sections. Issues which the qualitative team thought might need specific consideration for the quantitative survey design are outlined in boxes at the end of the sections.

There is some overlap between the themes identified, and where these occur they are flagged up in the text.

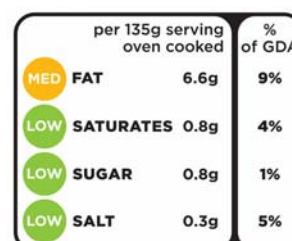
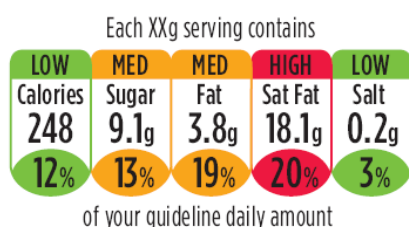
It is important to note that the methods employed in this element of the research were qualitative in nature. This approach was adopted to allow for individuals' views and experiences to be explored in detail. Qualitative methods neither seek, nor allow, data to be given on the numbers of people holding a particular view nor having a particular set of experiences. The aim of qualitative research is to define and describe the range of emergent issues and explore linkages, rather than to measure their extent.

A full analysis of the qualitative work will be presented in a report on the whole study, including the quantitative work, when all elements of the research are completed.

3 Text alongside Traffic Lights

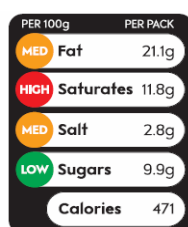
The aim of looking at this theme was to explore whether, and if so how, people used text alongside TLs. Such text appears in:

Hybrid labels, such as:

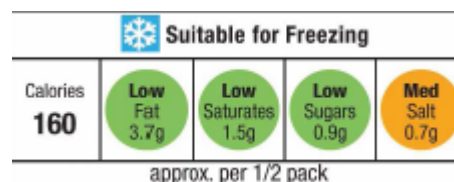


and

and in some TL labels, such as:



and



- It was apparent that there were people who did not understand that the TL colours had meaning [see section 5], and for these people the Low/Medium/High text aided their comprehension.
- The Low/Medium/High text allowed instant assessment of the nutritional information.
- There were instances where participants spontaneously suggested that Low/Medium/High should be included on TL labels, to aid their understanding, even if they were not familiar with labels which carried the words.

Given that the words High, Medium and Low appear to assist comprehension we suggest their inclusion is considered in the quantitative survey design.

4 Inclusion/exclusion of 'energy' on FOP labels

This theme was explored to investigate whether, and if so how, people used the 'energy' element of FOP labels (referred to on FOP labels as 'calories').

- A common theme was that people understood calorie intake limits, and were used to thinking about and calculating calories.
- It was not unusual for 'Calories' to be used as a proxy for the overall nutritional value of products – especially when people had difficulty understanding other FOP label elements.
- Calories were often used either on their own, or with other nutrients when making comparisons between products (both naturally during shopping, and in the Accompanied Shop choice task).

Two considerations on inclusion or exclusion of energy on the labels to be included in the tests were raised by the qualitative analysis:

- **Energy is a widely used element, which people are familiar with, and seem to understand. The exclusion of energy from the test labels could confuse people who use labels and look for the energy element.**
- **However, if energy were to be excluded it would force interaction with the other nutritional elements on the test labels, rather than allowing energy to stand as a proxy for overall nutritional value.**

5 Presentational elements

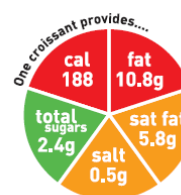
The direction of presentation (vertical, horizontal, etc.), the shapes of labels and the different elements within them, and the colours of labels, were explored to assess whether these elements appeared to have any impact on people's comprehension of FOP labels.

5.1 Direction of presentation

- People appeared to find horizontal labels the easiest to read; this is unsurprising as it is natural to read English from left to right.

5.2 Shape of labels

- There was some confusion about circular TLs, with some participants believing that they were pie charts, and that the wedge sizes were meaningful – with evenly balanced wedges indicating that a product was well balanced in nutrients.
- There were no other issues raised about the shapes of the labels, or the shapes in which the elements were presented.



5.3 Colours

- It was apparent that there were issues around the colours of the labels – both in terms of confusion of meaning, and in 'spotting' labels on packaging. [See also Sections 2 and 9]

5.3.1 Monochrome GDA labels

A pack provides...				
304	5.2g	9.2g	4.8g	1.5g
Calories	Sugar	Fat	Saturates	Salt
15%	5.8%	13%	24%	25%
of your guideline daily amount				

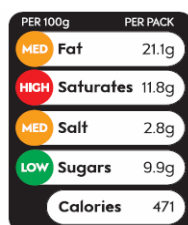
- There were cases where people assumed that the colours on these types of labels were meaningful, and that blue indicated that all nutritional elements were low (that is, equivalent to Green in TLs). This was generally when people were familiar with TL schemes and the meaning of the colours thereon, and were extrapolating a meaning to the colours in monochrome GDA labels. This caused problems for people both when they were looking at monochrome GDA labels in isolation and when they were trying to make comparisons between products carrying TLs and monochrome GDAs.
- Monochrome labels were not always easily spotted as they could blend into the background of the packaging.

5.3.2 Pastel GDA labels



- On pastel GDA labels colours remain constant, and relate to specific nutrients – for example, in the example of a retailer’s label shown above sugar is shown as pink, and this would be the case on all of this retailer’s GDA labels, regardless of the level of sugar or the type of product. As with monochrome GDA labels, there were people who assumed that the colours of pastel GDAs were meaningful. This misunderstanding happened more often with pastel GDAs. Again, this was generally when people were familiar with TL schemes and the meaning of the colours thereon, and were extrapolating a meaning to the colours in pastel GDA labels. Where this happened the ‘cooler’ colours (blue and the two greens) were assumed to indicate that the nutritional elements were low (that is, equivalent to Green in TLs). This was an issue when people looked at Pastel GDA Labels in isolation, but it was also problematic when comparisons were being made between products with pastel GDA labels and TL labels.

5.3.3 Traffic Light labels



- Whilst there was considerable recognition of TL labels giving information about nutrients, it should also be noted that there were people who had not realised that the TL colours were meaningful. Two key assumptions were made: the colours were there solely to make the label stand out on the packaging; and that the nutritional elements were colour assigned (as in Pastel GDA labels).

- The findings suggest that presenting the test labels horizontally would be the most logical option.**
- Given the confusion caused by label colours it might be worth considering testing TL, monochrome and nutrient specific GDA labels.**

6 Context in which label is presented

The aim of exploring this theme was to gain an understanding of the importance of the packaging design on which FOP labels appear.

- The background packaging information people used, in conjunction with the FOP labels, is as follows:
 - Nutrition claims
 - Health claims
 - Branding, such as 'healthy' product ranges
 - Other words on the packaging e.g. 'low fat' and 'reduced sugar', 'healthy' etc.
 - Pictures on the packaging
 - Appearance of the product through the packaging (for example, where packaging had cutaway sections showing pizza topping)
 - Back of pack (BOP) information

This information could be used when making a purchase decision about a product, either in isolation or as part of a comparison between two or more products.

- It was not unusual for people to use other packaging information before looking at, or rather than, the FOP labels. For example if a person saw the words 'low fat' on a product, they might decide to purchase on that basis alone, without actually looking at the FOP label to see what the fat content actually was.
- People had high regard for, and a belief in, 'healthy' ranges offered by retailers and as such when people bought products from these ranges, they were likely to consider that they were the 'healthier option' regardless of what the FOP label may state. During the accompanied shops, if participants did not refer to the FOP label when making their 'healthy choice' the FOP label was eventually pointed out to them. Upon doing this there were those who were shocked to discover some products from 'healthy' ranges contained higher levels of some nutrients than ordinary range products. For example biscuits from a supermarket's own 'healthy' range of products contained more sugar, and were higher in calories than the ordinary range biscuits.

The context within which an FOP label is displayed is clearly important and can influence people's purchase decision.

It is apparent from the qualitative material that if the quantitative survey aims to force respondents to consider the labels only, they need to be presented in isolation, and as much context/additional information as possible needs to be stripped away.

However, consideration could be given to introducing an element of context within the wording presentation, as a variable, to test the impact of context material on comprehension. For example:

- Product A "Shepherd's Pie, 450g, serves 2"
- Product B "Shepherd's Pie, 450g, 'healthy range', serves 2"

With variation in the nutrition labelling favouring the standard range product.

We would recommend displaying only minimal context within the tests as findings from the research showed that participants can be entirely distracted from the FOP label when too much information is presented and therefore their interaction with the FOP label can be diluted.

7 Product category

The qualitative data were examined to assess whether FOP labels were used differently by people for different product categories.

- It was apparent that there were certain types of food for which FOP labels were not likely to be used:
 - Products which were categorised as ‘treats’ (usually crisps, biscuits, confectionery etc., but for some people also ready meals) – people assumed that levels of nutrients would be high in such food categories, but did not worry about it, as the items were ‘treats’, and therefore they felt that there was no point in checking labels.
 - Products which are seen as healthy, such as vegetables and couscous. as participants felt there was no point in checking products which were understood to be ‘healthy’.
 - Single ingredient items such as fish, butter, oats, cream etc. – people saw these as ‘innocent’, as they were not likely to be processed to any great degree – there was an ‘it is what it is’ attitude to these types of products. Such items were also usually used in moderation (for example, a small amount of butter or cream), and were often used in recipes when people were cooking from scratch, so the nutrient content was not such an issue.
- People were most likely to use FOP labels on ‘Middle ground’ products e.g. those that were not seen as very healthy, or obviously unhealthy. What constituted this type of product varied from one person to another depending upon their own nutritional knowledge and circumstances. However, most usually they were convenience foods or highly processed foods within this category.
- There were people who used different nutritional elements to judge different product types, for example, checking salt in cheeses, or sugar in juices. *[See also Sections 8 and 9]*

It is apparent that people use FOP labels differently on different products. We suggest, therefore, that the quantitative survey should include categories of products which people have said they may use FOP labels for.

8 Using FOP labels to make comparisons between products

This section examines how and why people used FOP labels to make comparisons between products.

8.1 Why comparisons were made

- Generally, comparisons were made between similar products (for example, comparing energy and fat on ready meals). These products were often those in the 'middle ground' [see section 7] which were often convenience products and/or highly processed.
- Parents would make comparisons for products such as cereals or cereal bars which they would buy as children's meals/snacks.
- These category/product comparisons were also evident during the accompanied shopping trips where participants were looking to trade 'down' from a branded product to an 'own brand' product, which cost less. Participants made these comparisons assuming that 'own brand' items would not be as healthy as branded ones, and were considering whether they would have to make less healthy choices to save money.
- When making comparisons it was not unusual for people to look at one or two of the nutrients, for example:
 - Those who were on weight loss/control diets would usually look at the calories and/or fats and saturated fats exclusively.
 - Those who had medical conditions (or had medical conditions within their families) would make nutrients such as salt, sugar or fats/saturated fats their main focus.
 - There were some people who checked different nutrient levels in different product categories, for example looking at the salt content in cheeses, or sugar levels in breakfast cereals. These nutrients would often be seen as 'problem' areas within the category for that individual thus that sole nutrient would be primarily studied and compared.
- Finally, apart from selecting products based on the FOP nutrient levels, participants may also assess or compare products based on other factors such as additional nutrients (e.g. extra calcium), taste, price, promotion etc.

8.2 How comparisons were made

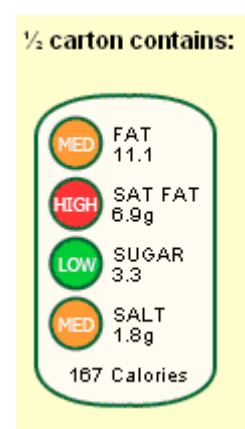
- Making comparisons between FOP labels on similar products within similar food categories could at times be difficult. For example, if the product portion sizes varied (different amounts, or, e.g., grams and half pack) or the nutrients were not in the same format (such as % of GDA allowance or grams) difficulties could arise.
- Making comparisons between different label types could also be difficult for people, especially when they either did not understand the meaning of TL colours, or assumed that GDA label colours were meaningful [see section 5.3]. For these people, making a comparison between, for example, a Tesco Soup and a New Covent Garden Food Company Soup, there could be an assumption that the salt were similar in both products as the colours can be very similar.

A serving contains



of your guideline daily amount

compared with



- Another area where confusion arose was when TLs were compared with monochrome GDAs. Participants could become confused by the 'extra numbers' (GDAs), and, as mentioned in section 4.3, there were sometimes assumptions that blue (being a 'cool' colour) meant that products were healthy on all nutrients – leading some to choose a GDA labelled product rather than one with a TL label.

It is evident from the qualitative research that making comparisons between different FOP labels can be confusing, for example making comparisons between TL labels GDA labels would be too complicated for some people especially if different serving/ portion sizes were used. This should be considered in the quantitative survey design.

9 Using FOP labels on single products

As well as being used to make comparisons FOP labels were also used to make an informed decision about a single product. Three uses for single products were identified in the qualitative work:

- To check against a packaging claim. There were participants who were sceptical about manufacturers' claims (e.g. '70% less sugar') and would double check this claim against the FOP labels for assurance and/or to establish what the sugar content was in reality.
- Those with specific dietary requirements: for weight loss/maintenance, for medical reasons, or because they wished to eat a healthy diet.
 - Those on diets for weight loss/maintenance tended to check on calories and/or fat content of single products. Weight watchers or dieters would make complex calculations to convert BOP information into 'points'
 - Those with medical conditions (or shopping for others who had medical conditions) looked for specific information on single products, for example those with diabetes shopping for low sugar products. It should be noted, however, that BOP information was also widely used for this purpose.
 - Those who wished to eat healthily tended to check certain nutrients (often fat and/or calories) on single products. There were people who had their own 'cut off' point which they would not exceed. For example they might not go over 5 grams of fat per item regardless of other factors such as cost, taste etc. and would take on an instant 'accept or decline' approach to that single product. This was mainly observed with participants who were on a controlled diet due to weight, health or medical reasons, their decision often influenced by third party advice such as a diet club or a Doctor's recommendation.
- Finally there were participants who showed signs of brand loyalty – tending to buy the same products over time. Amongst these there were people who would notice if their usual purchase had a 'new improved flavour' claim on the packaging for example, and would then check to see whether/how the nutrients had changed against their previous knowledge of the products nutrients. This was not necessarily done with a view to comparing that product with another, but purely for information/interest purposes.

There is evidence that some people use FOP labels on single products, therefore non-comparison tests should be considered for the quantitative survey design.

10 Usage of different FOP labels

This section explores issues around the usage of the different FOP label types, and whether the label types were used in different ways.

We found no evidence to suggest that people were using different label types for different purposes. Generally the participants were influenced by the product, brand, price, ingredients and taste, rather than the information on the FOP labels.

There is evidence, however, to show how people use the FOP labels when making a purchase decision, and this is discussed below in relation to TLs, GDAs and Hybrid labels.

10.1 Traffic Light labels

- TLs enabled instant recognition and the easy viewing of nutrient levels via the TL colours, making it easy to use for those who understood it. *[However, see section 5 for discussion on some misinterpretation of label colours].*
- The TL label was beneficial for those who were short of time when shopping, or did not wish to dedicate time to their shopping trips (for example, when they had children with them), or were generally unwilling or unable to make informed decisions based upon gram weights of nutrients alone. In these cases participants would use their understanding of TL colours to make quick decisions about the nutrient content of the products such as 'it's all green, therefore it's good', without further analyzing or breaking down the FOP information.
- As mentioned in Section 5.3.3 and 8.2, not everyone intuitively understood what the TL colours referred to (without supporting text). For example those who did not understand the meanings of the TL colours, there was sometimes an assumption that nutrients such as saturated fats were always in red as they were perceived to be 'unhealthy'.
- There were also some participants assuming that the TL wheel design had different sized wedges *[see section 5.2]*, representing the percentage of a single nutrient within the pack/per 100 grams etc.

10.2 GDA labels

- GDAs were liked and used by people who had a good understanding of nutrition and who wanted a deeper level of information than was sometimes available on other label formats. Those who used and understood GDAs were likely to be able to discuss nutrition in general in a knowledgeable way.
- As discussed in Section 5, there were people who assumed that GDA colours (both monochrome and pastel colours) had meaning. Where this happened there was a tendency to assume that the 'cool' colours (pale blues and greens) meant that nutrients were present in low levels in products. In pastel GDAs the 'hotter' colours were more associated with nutrients which could be expected to be red or orange on TL labels (for example sugar shown in pink and salt in amber).
- Generally, however, GDAs were not always well understood, and there was much confusion about how they should be used. For example, there were instances of people thinking that the product was comprised of, say, 10% salt rather than contributing 10% of GDA for salt if consumed in the portion size declared on pack.

10.3 Hybrid labels

- The Hybrid design was regarded as easy to use, allowing people to focus on whatever element they wished (TL, GDA, words High/Medium/Low, where they appeared) and use what they were comfortable with. There were cases where participants spontaneously suggested such a design as a solution to the various issues around understanding other types of FOP labels.
- A hybrid design with text supporting the TL colours was considered to contain all the necessary information and to be especially helpful for people who needed extra guidance.
- Where the Hybrid label was used participants were more likely to understand at least whether a nutrient was deemed to be High, Medium or Low in a product because the labels told them this.

It is apparent that participants have different levels of interaction with, and understanding of, various designs and it is also evident from the qualitative research that making comparisons between different FOP label types can confuse or hinder the participants' decision making processes. We would therefore recommend comparison tests are considered in the quantitative survey design.

11 Using FOP labels in the context of diet/meal planning

The aim of exploring the use of labels in context of diet/meal planning was to determine if FOP labels were used, and if so, whether they had an influence, or assisted people in these areas.

There was little evidence that FOP labels were used by people in diet and meal planning unless people were on a weight loss/control diets, and/or because they had medical conditions which required one or more nutrients to be monitored.

11.1 Using FOP labels to assist with weight loss/control

- The ways in which people used FOP labels when dieting were usually related to counting calories or controlling fat intake in their diet. For example Weight Watcher dieters tended to use BOP information to calculate 'points'.
- These participants demonstrated a high level of understanding of all types of FOP labels and nutrient information, and were adept at working with portion sizes.
- Amongst these participants some would use FOP labels to assess whether a food was high or low in a particular nutrient and would then 'trade' items off one another. For example a pizza may be served with salad, meaning the overall nutrients in the meal were acceptable. Alternately people may compensate a high calorie/fat evening meal such as lasagna with lower calorie/fat meals for breakfast and lunch.

11.2 Using FOP labels to assist with medical conditions

- These participants also demonstrated a high level of understanding when using the various FOP labels, although sometimes it was focused on only one nutrient, such as salt.
- However, there were cases where participants' dietary requirements did not match nutritional guidelines. This would mean that nutrient information on FOP labels could be irrelevant to them as their personal GDA requirements were different from those which FOP labels are based on. For example those with diabetes need to regulate their sugar intake so they considered that their personal GDA would be lower than the average. In these circumstances, FOP labels were still of use, but BOP information was habitually checked too.

Whilst it is evident that generally people do not use FOP labels in the context of diet/meal planning, clearly those who do use them are well informed about nutrients, guideline daily amounts and portion sizes.

It is probably worth considering asking whether people have specific dietary requirements in the quantitative survey, so that their results can be looked at separately, or as a contrast group to the more general population whose understanding is likely to be less good.

12 Other information about usage and comprehension of FOP labels

The qualitative research found that some participants felt that FOP labels had little or no impact upon their shopping habits or purchase decisions. They were as follows:

- People who had medical conditions [see Section 10] which meant they could require more or less of one or more nutrients than standard GDAs. This included severely underweight people who might need higher levels of some nutrients. As a result of a participant's medical condition, the *recommended* GDA or TL colours, may not be applicable. Consequently, the FOP label becomes redundant, with participants being more likely to view the BOP label for information.
- People who considered their lifestyle and/or diet to be balanced and healthy already, made their own decisions about what they should eat, regardless of the products' nutrient contents.
- Those who cooked from scratch. Some participants did not feel the need to check FOP labels on products which were going to be used as an ingredient in cooking a meal. This was either because they saw the meal itself to be nutritionally balanced or because the various ingredients were necessary to make the meal, and could not therefore be changed.
- There were people who were predominantly led by what they, or their family, simply wanted to eat. Mothers sometimes felt that their children would only eat certain meals, and they took the view that if they enjoyed these meals, then they should have them, regardless of what the FOP labels indicated.
- In some cases the FOP labels were deemed to be too small to read, or even notice on packaging. For example a Kellogg's Frosties' label is light blue on a dark blue background, which could be easily missed.

We suggest that it is explained to quantitative survey respondents that it does not matter whether they would actually buy or eat products presented in the quantitative survey, for two reasons:

- **Some people would not buy/eat certain product types (and this could cause much discussion if not explained up front).**
- **For some products people are less likely to examine labels, as they 'know' what is healthy/unhealthy.**

13 Differences between key demographic groups

- There appeared to be no correspondence between any of the demographic variables, including level of education, and understanding of the FOP labels.
- However there were two areas where a specific demographic could determine people's use of FOP labels:
 - Asian participants (predominantly with Indian, Pakistani or Bangladeshi heritage) often did not use FOP labels. Their rationale for this centred around the fact that they often cooked from scratch, so recipes determined what the meal would contain, not nutrient values
 - Participants who had young families often looked for products that were 'free from' additives and preservatives, and/or were lower in salt and sugar in the interest of their children's health and development
- Although there was no apparent correspondence between level of education and understanding of the FOP labels, there did appear to be an issue around how comfortable people were with using numbers and their level of comfort in using GDA labels. It seemed that the more numerate a person was, the more likely they were to be able to use GDA labels.

Whilst the qualitative research did not test people's numeracy, they often reported feeling uncomfortable using numbers. There appeared to be a correspondence between level of numeracy and ability to use GDA labels. We would, therefore, recommend further testing of this issue.

14 Other issues

There were findings from the analysis which the qualitative team perceived to be potentially pertinent to the design of the quantitative survey, but which did not fit into the themes outlined earlier. These are presented below.

14.1 GDA labels

- There was confusion about whether/how GDAs applied to everyone, or whether there were different GDAs for different people (gender, age, body type etc.).
- A key theme to emerge was that people thought they had to do some mathematical manipulation with GDAs, and found this off-putting. This was especially evident in relation to portion sizes, where GDA labels were generally found to be particularly hard to use.

14.2 Portion sizes

- Portion sizes caused confusion on all label types, both when comparisons between products were being made, and for single items. Examples of this are:
 - Not knowing whether, for example, 30g of cereal was a 'normal' portion for them⁵
 - Participants tended to assume that the nutritional information referred to the whole of the product, although this was not always the case. This was particularly so for sandwiches, cans of soup and bottles of fizzy drink. This could not only confuse the participants but could also leave them feeling 'cheated'

14.3 Terminology

- There were people who did not understand some of the terminology used on FOP labels, such as 'GDA' and 'Sat fat'. This lack of understanding of terms and acronyms could lead to people being uninterested in, or being put off from using, FOP labels.

These issues should be considered in the design of the quantitative survey and the tests, for example, portion size can be a confound

⁵ See FSA report 2007a, which also found that portion size was problematic.

people's understanding, therefore how this is presented is likely to be important.

Appendix 1 - Methodology

Three methods were used in the main stage of the qualitative work:

100 accompanied shops

Researchers accompanied people as they shopped in supermarkets, using a topic guide and observation protocol to explore the decision making processes used when buying, or considering buying, food items. There was particular focus on how FOP labels were used in this context.

Towards the end of each accompanied shop participants were asked to undertake a short task of choosing the healthiest product from a food category – for example, participants might have been taken to a pizza section and asked which pizza on offer was the healthiest. There were no right or wrong answers in the task; the process was used to explore how people made such choices.

There was a mixture of people doing main shops and 'top up' shops, and fieldwork took place at different times of day, and on all days of the week

The accompanied shops gave an understanding of how people used FOP labels in retail environments. They allowed probing at the point of decision making, and observation of behaviour in a retail environment.

50 in store shopping bag audits

People were recruited as they were finishing their shopping. After the participants had been through checkouts researchers discussed their purchasing decisions with them, again with a focus on the use of FOP labels.

The in store shopping bag audits gave an understanding of how people use FOP labels in retail environments. Although researchers were not present to probe whilst decisions were being taken this method ensured that there was no observer effect on purchasing decisions, as purchasing was done without participants knowing that they were going to be asked to participate in the research.

50 in home shopping bag audits

All participants in the in home shopping bag element of the research were recruited as 'label users', that is, they were sifted at recruitment to only include people who recognised, and said they used, FOP labels. Researchers visited participants shortly after they had undertaken a shopping trip, and used items purchased to discuss both purchasing decisions, and how FOP labels were used to make them, and whether and how the foods, and FOP labels, were to be used for

meals in the days ahead, thus giving an understanding of how labels are used in the home.

Locations used in the research

Fieldwork took place in several geographical locations:

- Edgware
- Leeds
- Leicester
- Rochdale
- Norwich
- Wimborne/Poole
- Shrewsbury
- Bridgend
- Glasgow
- Belfast

Across the locations the following stores were used:

Accompanied shops:

Location	Retailer			
	Sainsbury's	Asda	Morrisons	Co-op
Edgware	3	3		
Leeds	3	3	6	
Leicester	3	3	3	
Rochdale				3
Norwich	3	3	8	
Wimborne/Poole	3	4		2
Shrewsbury	2	4	9	
Bridgend	3	4		2
Glasgow	3	3	7	
Belfast	3	6		1
TOTALS	26	33	33	8

In store bag audits:

Location	Retailer			
	Sainsbury's	Asda	Morrisons	Co-op
Edgware		6		
Leeds	4		5	
Leicester		5		
Rochdale			3	
Norwich	4			
Wimborne/Poole				3
Shrewsbury		5		
Bridgend				3
Glasgow			9	
Belfast	3			
TOTALS	11	16	17	6

In home bag audits:

Location	Main retailer used:					Totals
	Sainsbury's	Co-op	Morrisons	Asda	Tesco	
Edgware	2			2	2	6
Leeds			1	2		3
Leicester	1			2		3
Rochdale		1		2		3
Norwich	1		3	1	1	6
Wimborne/Poole	2	2		2		6
Shrewsbury	1		2	1	2	6
Bridgend	2	3			1	6
Glasgow	1			2	3	6
Belfast	1			2	2	5
TOTALS	11	6	6	16	11	50

Retailers were chosen to represent the three main label formats in use:

Sainsbury's: TL

Co-op: TL

Morrisons: GDA

Tesco: GDA

Asda: Hybrid

The areas were chosen to represent a mixture of urban and rural locations across the four countries of the UK.

Appendix 2 – Recruitment

Participants for all parts of the qualitative element were recruited to quotas relating to shopping venue, geographical location, life stage, working status, educational attainment, ethnicity, gender and socio-economic grouping.

Participants for Accompanied shops and In home bag audits were recruited using a 'free find' method by specialist recruiters. Researchers recruited participants for the In store bag audits.

Accompanied shops

Screening at recruitment ensured that all of those included in the research intended to purchase food items from selected categories having FOP labels. For top up shops potential participants were only recruited if they intended to buy at least 3 items with FOP labels, and for main shops if they intended to buy at least 5 items.

In store bag audits

For in store bag audits researchers recruited participants who had several items with FOP labels at checkouts. Potential participants were only included if they had bought at least at least 5 items with FOP labels.

In home bag audits

Participants were recruited for this stage based on their intentions for their next shopping trip, so as to only include those who were intending to purchase at least 5 food items carrying FOP labels. All participants for this element were screened to include only those who used FOP labels; this was done by presenting potential participants with sheets showing a wide variety of FOP labels, and three non-FOP labels (Soil Association Organic Standard label, Fair Trade label and a Back of Pack label). Only those who said they used FOP labels, and who correctly identified FOP labels were included. Recruiters also told potential participants that the researchers would be asking them for detail about how, why and in what circumstances they used FOP labels during the interview, to ensure that people were not only giving what they thought was a socially acceptable answer to recruiters.

Appendix 3 - The analysis of qualitative material using *Matrix Mapping*

Material collected through qualitative methods is invariably unstructured and unwieldy. Much of it is text based, consisting of verbatim transcriptions of interviews and observational notes. Moreover, the internal content of the material is usually in detailed and micro-form (for example, accounts of experiences, inarticulate explanations, etc.). The primary aim of any analytical method is to provide a means of exploring coherence and structure within a cumbersome data set whilst retaining a hold on the original accounts and observations from which it is derived.

Qualitative analysis is essentially about detection and exploration - 'making sense' of the data by looking for coherence and structure within it. *Matrix Mapping* works from verbatim transcripts and involves a systematic process of sifting, summarising and sorting the material according to key issues and themes.

The process begins with a familiarisation stage and includes researchers reviewing the audio recordings and/or transcripts. Based on the coverage of the topic guide, the researchers' experiences of conducting the fieldwork and their preliminary review of the data, a thematic framework is constructed. The analysis then proceeds by summarising and synthesising the data according to this thematic framework.

When all the data have been sifted according to the core themes the analyst begins to map the data and identify features within the data: defining concepts, mapping the range and nature of phenomenon, creating typologies, finding associations, exploring differences and providing explanations. Perceptions, accounts and experiences are compared and contrasted; searches are made for patterns or connections within the data; and explanations are sought internally within the data set. Piecing together the overall picture is not simply aggregating patterns, but it involves a process of weighing up the salience and dynamics of issues, and searching for structures within the data that have explanatory power, rather than simply seeking a multiplicity of evidence.

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