

IFIC Foundation Food Label Consumer Research Project: Qualitative Research Findings

Introduction

Today's food labels provide nutrition information to help consumers make food choices to achieve a healthful diet. The Nutrition Facts Panel (NFP) contains serving size, calorie, and nutrient information, as well as Daily Values (DVs) for key nutrients. Given the goal and components of the NFP, the International Food Information Council (IFIC) Foundation launched the Food Label Consumer Research project in 2006 with the overarching goal of enhancing consumers' ability to make informed, balanced diet choices using the NFP.

The Food Label Consumer Research is a three-phase project with both qualitative and quantitative phases. The overall project objectives are to:

1. Understand how consumers make food and beverage purchasing decisions using the NFP in the context of the entire package as well as other food and nutrition information sources and
2. Explore changes to the NFP that could facilitate consumers' decisions.

The subject of this report is the two-phase qualitative part of the project comprised of ethnographic interviews and iterative focus groups (see Table 1).

Table 1. Overview of the Qualitative Research Phases

	Ethnographic Interviews (Phase I)	Iterative Focus Groups (Phase II)
<i>Research Design Objectives</i>	<ul style="list-style-type: none"> ▪ Understand how NFP fits into consumers' broader set of drivers and information sources for food and beverage decisions ▪ Identify specific barriers to NFP usage 	<ul style="list-style-type: none"> ▪ Evaluate concepts to improve current NFP barriers, identified in the ethnographic findings ▪ Explore how label information could be improved
<i>Markets and Dates</i>	Boston, MA (Jan. 10-22, 2006) Birmingham, AL (Jan. 27-29, 2006) San Diego, CA (Feb. 1-13, 2006)	St. Louis, MO (Sept. 12-13, 2006) Baltimore, MD (Nov. 14-15, 2006)
<i>Study Participants</i>	Primary household food and beverage shoppers who vary on: gender, age, race, income, and family composition	Primary household food and beverage shoppers who vary on: label usage, gender, age, race, income and family composition
<i>Inclusion & Exclusion Criteria</i>	All have an interest in food and beverages with moderate to heavy label usage Only a limited number have health issues (e.g., high blood pressure) or are on regimented weight loss diets (e.g., Atkins) None have major food allergies	All have an interest in food and beverages Only a limited number have health issues (e.g., high blood pressure) or are on regimented weight loss diets (e.g., Atkins) None have major food allergies

Methodology

Ethnographic Interviews The interviews were scheduled on days when participants normally go shopping, mirroring the national data that shows a third of consumers shop on weekdays, while the additional two-thirds are split across days of the weekend. Therefore, a total of twenty-six (26) ethnographic sessions in homes and grocery stores were held on nine (9) weekdays, eight (8) Saturdays, and eight (8) Sundays. Each four-hour ethnographic interview was comprised of three (3) basic stages: an introduction inside the home where researchers were able to learn about the context of the shopping trip; the in-store shopping experience; and a more in-depth discussion back at home to reflect on observed patterns (*Figure 1*).

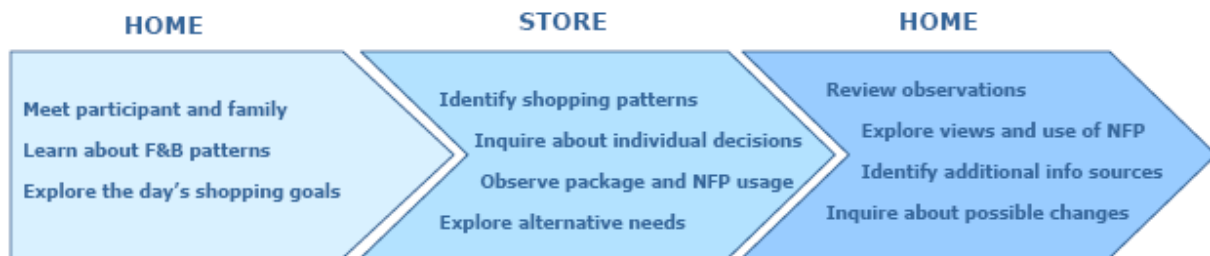


Figure 1. Phase 1 Ethnographic Research Scheme

Focus Group Discussions (FGD)

Specific challenges with consumers' usage of the NFP were identified in the ethnographies. Based on these issues, potential improvements to the NFP were identified and translated into several NFP graphic examples (i.e. mock variations of the current format). These were tested with a total of eight (8) iterative focus groups in two markets: first, in St. Louis, MO, and second, in Baltimore, MD. The FGD schedule was structured in such a way that background information on consumer health choices and information sources were obtained before probing about the NFP.

Consumers from the first market built upon NFP recommendations, brainstormed additional suggestions, and discussed the ideal NFP design. Concepts that resonated with most consumers in the first market were translated into revised NFP examples and tested with participants in the second market (*Figure 2*). Based on the findings from all sessions, a list of NFP improvements – aimed at enhancing consumers' abilities to make healthful, balanced diet choices – was created.



Figure 2. Phase II Focus Group Discussion Scheme

Findings

NOTE: While these two phases—ethnographic interviews and focus groups—generated rich information, they share certain limitations that are common to most types of qualitative research. Because the participants were not randomly selected and are relatively few in number, the results cannot be generalized to the US population. Since numeric data were not collected, it is not possible to subject the findings to statistical analysis that could estimate the extent to which opinions expressed by the participants reflect that of the general population. To supplement the findings of the qualitative phases and address its limitations, a quantitative phase has been built into the Food Label Research. See the “Summary and Next Steps” section of this report for more information.

Ethnographic Interviews

Characteristics of NFP Users

Consumers who are interested in health—because they have specific health concerns or are basically health-conscious—were more likely to consider the NFP when purchasing foods and beverages. When they were in the store, they used it to evaluate and compare products. At home, a few consumers used the NFP to check or verify serving sizes. Some consumers also used it to model serving sizes and to manage their intake. Other characteristics of NFP users are those who are:

- Parents and have children they shop for;
- Currently on a diet and even those that have been on a diet in the past;
- Purchasing more new products; and
- Less brand-loyal (thus using the NFP as more of a decision-making criteria than brand).

Factors Influencing NFP Use

Attractive packaging and label claims and statements on the front of the package—insofar as they prompt consumers to consider new products and evaluate the specific health context (e.g. reduced fat)—increased the likelihood of consumers using the NFP. When price points or front-of-pack claims are similar, some consumers would check the NFP to compare products. If it was noted that formulations of familiar products have changed—such as the sauce or flavorings—consumers often looked at the NFP for more information. They were likely to read the NFP of food and beverage items requested by another adult with a health concern and by children.

Consumers were less likely to examine the NFP if they were purchasing routine items; single-ingredient products (e.g. milk or eggs); discounted items; and products requested by or suggested to them by other healthy adults. Interestingly, there seemed to be a “halo” effect on products that were located in the “healthy section” of a supermarket (i.e. “natural” or “diet”) because consumers tended to assume that these products were already “healthy.” They were also less likely to check the NFP of products that had see-through packaging or muted tones and images that connoted wholesomeness and/or healthfulness as these engendered trust. Finally, packages that made certain foods appear like they were “home-made” decrease the likelihood of NFP usage because these foods were mentally categorized as “treats” and concern about specific nutrients becomes less important. This mental categorization of products as “treats” appeared to sometimes be more

influential than nutrition information on the packaging in that consumers stated they would eat or drink the product anyway—despite the caloric content and/or higher amounts of fat, sugar, etc.

Parts of the NFP Consumers Look At

When consumers looked at the NFP (Figure 3), they frequently considered only certain parts. That is, they stated they are drawn primarily to the specific parts/nutrients that are of interest to them or others for whom they are selecting products.

Macronutrients and Gram Information (considered VERY OFTEN): Macronutrients such as fats, sugar, and fiber are checked more frequently than vitamins, for example. Consumers relied more on gram information for nutrients rather than percentages (percent DV), which they stated they find “confusing.” Some consumers often looked for specific cut-off values that they have derived from numerous sources, such as “no more than two grams of saturated fat per serving,” to determine whether the product is “acceptable.”

Serving size and Calories (SOMEWHAT OFTEN): Some consumers checked the serving size to see how much they “should” be consuming. Others assumed that this is “what the average person eats” and were unaware that this information is in part regulated or determined by the government. Some consumers also looked at calories and a few looked at calories from fat.

Vitamin and Minerals (LESS OFTEN): Consumers found it difficult to evaluate how much of each vitamin they actually need. Furthermore, consumers stated that the percentages for many vitamins and minerals in a given food seem very low. Because many consumers take multivitamins, they stated that they do not feel the need to consider vitamins or minerals in foods and beverages they consume. They also had a hard time calculating the percentages without a reference point.

DV Footnote and Percent DV (LESS OFTEN): Consumers said that they do not use the DV footnote. In fact, most had no idea what the footnote was trying to convey, and some thought it changed with each product. Most stated that they do not understand the percent daily value concept in general.

Nutrition Facts			
Serving Size 1 cup (228g)			
Servings Per Container 2			
Amount Per Serving			
Calories 260		Calories from Fat 120	
% Daily Value*			
Total Fat 13g		20%	
Saturated Fat 5g		25%	
Trans Fat 2g			
Cholesterol 30mg		10%	
Sodium 660mg		28%	
Total Carbohydrate 31g		10%	
Dietary Fiber 0g		0%	
Sugars 5g			
Protein 5g			
Vitamin A 4%	●	Vitamin C 2%	
Calcium 15%	●	Iron 4%	
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Calories per gram:			
Fat 9	•	Carbohydrate 4	• Protein 4

Figure 3. The Nutrition Facts Panel

Drivers and Barriers to Using the NFP

Drivers. The NFP was perceived by consumers to be a trustworthy source of information. It reinforced the transparency of manufacturers. For example, consumers stated they believe it helps manufacturers maintain honesty about other text on the package such as label claims and statements. Consumers noted the NFP also lists items that are relevant to consumer health needs.

For instance, some pay attention to saturated fats because of concern about heart disease. Consumers stated that they appreciate when the NFP reflects “improvements” over time in conjunction with “new” scientific evidence (e.g. trans fat listings).

Barriers. Small font size, the paragraph layout, or seemingly inconsistent terms (e.g., “bag” versus “package” associated with serving size information) frustrated consumers who try to read the NFP. In addition to these format-related issues, three main challenges were identified which seem to limit consumers’ ability to use the NFP:

- 1) **Consumers stated that they find the serving size information confusing.** Participants almost universally believed the serving size information is inaccurate and sometimes unintuitive – for example, the number of unpopped kernels of popcorn in a serving. Moreover, serving sizes seemed inconsistent, as consumers stated they cannot easily track the weight with a visual metric, like a slice or a cup. Thus, consumers stated that two NFPs that compare 1/2 cup and 2/3 cup of cereal seemed like a “trick” because they do not see that they may have the same gram weight. Conversely, two slices of bread that have different gram weights seems like a more reasonable comparison but can still be confusing if consumers do not see the grams and the visual portions, such as the thickness of the slice.
- 2) **Consumers did not realize information to help them interpret choices within a daily context exists on the current NFP.** The percent DVs help determine whether a serving of the product is high or low in certain nutrients based on a 2,000-calorie reference diet. Consumers did not use percent DVs to see how food and beverage selections contributed to their overall daily diet. Some also thought percent DVs described a product’s composition (e.g. a product with fat at 10 percent DV per serving is perceived to be made of 10 percent fat).
- 3) **Consumers did not consider their consumption of foods and beverages in the context of their daily intake.** Consumers used the NFP to evaluate foods and beverages individually – they were not considering how products fit into a healthful daily diet. When asked directly in the focus groups, consumers said the label does not provide them with the information to evaluate foods in this manner. They stated this is the case not only for nutrients, but also for caloric intake.

Consumer Recommendations for Improving the NFP

Table 2 summarizes key consumer recommendations for improving the NFP based on the qualitative findings. The changes include format and font adjustments; standardization of serving sizes and terminology; clarifying nutrient-calorie relationships and the meaning of percent DV.

Table 2. Consumer Recommendations for Improving the NFP Based on the Qualitative Findings

Readability	Usability	Clarity
<ul style="list-style-type: none"> • Increase font size • Avoid “paragraph style” NFPs whenever possible. • Present gram and percent DV information in a columnar form. • Bold the serving size. 	<ul style="list-style-type: none"> • Maintain a standard serving size across similar products. • Provide information for a serving size that is easily interpreted (i.e. household measure). • Maintain consistent serving size terminology (e.g., “bag” and “package”). • Link the information to recommendations that consumers are familiar with, e.g. the MyPyramid graphic. 	<ul style="list-style-type: none"> • Clarify the relationship of total fat to other fats. • Distinguish between calories per serving and calories from fat. • Clarify the meaning of the percent daily value; consider moving the footnote into columnar format.

Focus Groups

Given the barriers to NFP use and recommendations identified from the ethnographic phase, several modified NFP formats were developed, tested, and redesigned according to consumer feedback. The following sample formats summarize the features and concepts that resonated well with focus group participants:

Single Serving/Entire Package Declaration

This label attempts to address the barrier related to interpreting serving size information. Many consumers said that nutrient information for the entire package should be included on all products that they would likely consume in one sitting, such as some beverages and snacks. Because they were likely to consume the whole package, they wanted to know how many calories and how much of certain nutrients they were getting. The “entire package” information, provided a reference point, making the serving size easier to interpret. Note that the amount per serving/entire package information was organized in a columnar format. This improved the readability of gram and percent information (Figure 4).

Nutrition Facts					
Serving Size 6 pieces (29g)					
Servings Per Container 4					
	One Serving Provides		Entire Package		Daily Amounts Per the FDA
Calories	7%	140	28%	560	2,000
Calories from Fat		50		200	
Total Fat	9%	6g	37%	24g	65g
Saturated Fat	10%	2g	40%	8g	20g
Trans Fat		0g		0g	
Cholesterol	0%	0mg	0%	0mg	300mg
Sodium	7%	160mg	27%	640mg	2,400mg
Total Carbohydrate	7%	21g	28%	84g	300g
Dietary Fiber	4%	1g	16%	4g	25g
Sugars		11g		44g	
Protein		1g		4g	
Vitamin A	0%	0 IU	0%	0 IU	5000 IU
Vitamin C	0%	0mg	0%	0mg	60mg
Calcium	0%	0mg	0%	0mg	1000mg
Iron	8%	1mg	30%	5mg	18mg

* Daily Amounts Per the FDA are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

Figure 4: Sample Label for Single Serving/ Entire Package Declaration

Footnote Information in Columnar Format

Building on the efficacy of the columnar format, footnote information, indicated as “Amount Per Day,” was moved up and placed side-by side with “Amount per Serving.” Consumers found this helpful because it improved readability and made the DV information easier to locate and interpret. The percent DVs also made more sense to consumers when it is compared to “Amount Per Day.” This addressed the second barrier concerning consumers’ lack of awareness that the DVs are on the NFP and may help them interpret daily context. See Figure 5. Consumers also stated that they liked the percent DV of calories as shown in Figures 4 and 5.

Nutrition Facts			
Serving Size 1 cup (228g)			
Servings Per Container 2			
	% Daily Value	Amt Per Serving	Daily Amounts Per the FDA*
Calories	13%	250	2000
Calories from Fat		110	
Total Fat	18%	12g	65g
Saturated Fat	15%	3g	20g
Trans Fat		3g	
Cholesterol	10%	30mg	300mg
Sodium	20%	470mg	2400mg
Total Carbohydrate	10%	31g	300g
Dietary Fiber	0%	0g	30g
Sugars		5g	
Protein		5g	
Vitamin A	4%	200 IU	5000 IU
Vitamin C	2%	1mg	60mg
Calcium	20%	200mg	1000mg
Iron	4%	<1mg	18mg

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

Figure 5. Sample Label for Footnote Information in Columnar Format

Consumers said they did not understand units of measurements for some vitamins and minerals such as International Units (IU) in a vacuum (i.e., without “Amount Per Day” information). Other consumers were familiar with IUs because of their daily intake of a multi-vitamin. They specifically suggested including a Daily Value in addition to the percent DV for vitamins and minerals, since they were unaware of how much they should have each day.

Even if readability and interpretation of the footnote information improved, some consumers still felt that the current reference diets of 2,000 and 2,500 calories are not relevant to them. These consumers suggested including a lower calorie option (e.g. 1600 calories) or some other reference for men and women.

MyPyramid in the NFP

To address the barriers of not evaluating foods in the context of the entire daily intake and consumers’ desire to identify serving information with familiar measures and recommendations, the MyPyramid graphic was added to the NFP. Consumers liked the idea of linking MyPyramid food groups and serving sizes to an individual product. They also appreciated the reference to the Web site to get individualized information (Figure 6a). Several iterations of the MyPyramid graphic were tested. Some consumers wanted information for all groups, regardless of whether the product contained the food component (Figure 6b), while others suggested a plainer format by including only serving information for the food groups that existed in the product. Still, other consumers appreciated the inclusion of food-group servings provided by the product relative to recommendations (e.g. Grains: 1 out of 6 oz) as part of the information on the graphic. More research is needed to determine the most effective way to present the MyPyramid graphic to assist consumers in evaluating foods in the context of their entire daily intake and the recommendations for the various food groups.

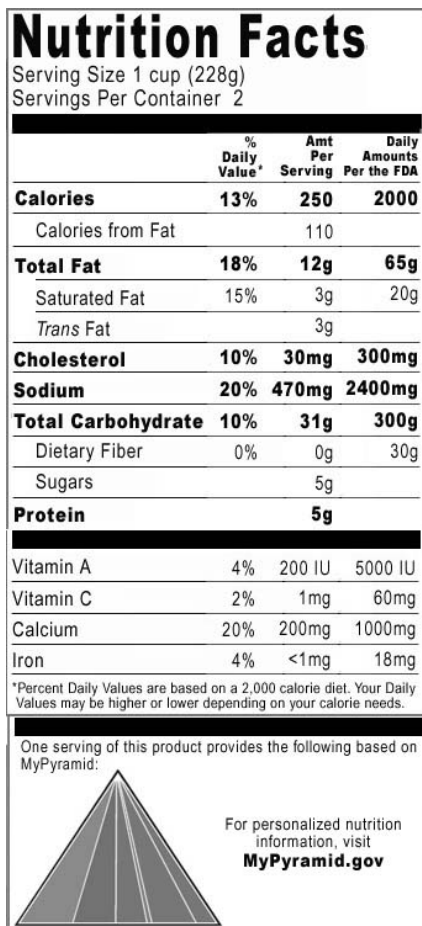


Figure 6a. NFP with reference to MyPyramid

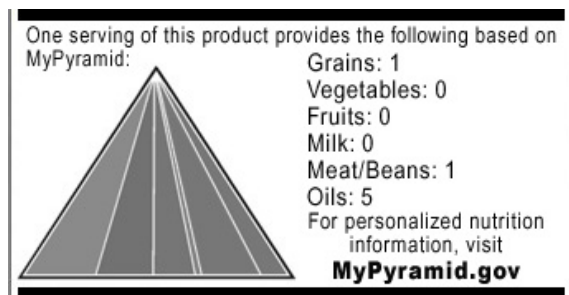


Figure 6b. Sample MyPyramid Graphic with Serving Information Provided for All Food Groups

Beyond the NFP: Calorie Information

Previous iterations of the NFP reflected formats in which the font for “Calories” was increased in size, bolded, or even reversed in color (e.g. white font against a black background). However, participants said that these would not likely further draw their attention to this portion of the NFP nor encourage them to consider foods and beverages in the context of their daily energy intake. Instead, consumers appreciated a quick overview of the number of servings and calories per serving provided elsewhere on the package that they will readily see – for example, the front of the package. They also agreed that including the percent DV of calories is useful. See Figures 7a and 7b.

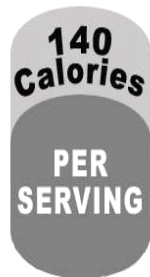


Figure 7a. Sample Representation with Calories Per Serving



Figure 7b. Sample Representation with Calories Per Serving and Percent DV of Calories

Summary and Next Steps

The qualitative research design of the first two phases of this project allowed the in-depth exploration of consumers’ insights and understanding of the NFP. The ethnographies and focus groups also helped identify motivations and barriers underlying behaviors as they relate to the use of the NFP. Based on the overall qualitative findings, the following improvements may potentially achieve the overarching goal of enhancing consumers’ ability to make informed, balanced diet choices using the NFP:

- Encourage consumers to think about all the dietary components that make up a balanced diet, including calories;
- Increase consumers’ ability to comprehend how serving size relates to the entire NFP; and
- Improve consumers’ comprehension and use of Daily Value (DV) information.

While these two phases generated rich information, they share certain limitations that are common to most types of qualitative research. Because the participants were not randomly selected and are relatively few in number, the results cannot be generalized to the US population. Since numeric data were not collected, it is not possible to subject the findings to statistical analysis that could estimate the extent to which opinions expressed by the participants reflect that of the general population.

To supplement the findings of the qualitative phases and address its limitations, a quantitative phase has been built into the Food Label Research. Phase III will be a quantitative, Web-based experimental design and will be fielded in 2008. It will provide a statistically meaningful way to determine what percentage of consumers find each of the potential NFP suggestions useful. Some of the options to test in this phase may include:

- Move the DV explanation footnote into a column next to percent DV;
- Include percent DV of calories;
- Include DV for vitamins/minerals (i.e. milligrams or IU);
- Link serving sizes to MyPyramid using the easy-to-identify graphic;
- Reference MyPyramid information Web site to obtain personalized nutrient information;
and
- Include entire package information for those products consumers are likely to consume in one sitting.