

## Community Nutrition Project Proposal Part One

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**Background:** The Healthy Retail Network (HRN) was created and is supported by the Multnomah County Health Department. Its main purpose is to increase community access to healthy, affordable food by helping storeowners market healthy products, and make store improvements to increase the neighborhood desirability and value of their businesses.

**Title:** “ The Healthy Retail Initiative: working to educate retailers on the importance of reading and understanding nutrition labels on food packages.”

**Goal:** To educate corner store retailers on reading and understanding food nutrition labels in order to stock healthy food options to successfully participate in the Multnomah County Healthy Retail Network.

### **Objectives:**

1. The retailers will be able to list the important nutrition label identifiers for healthy food choices. (I.E. sodium, fat, fiber, sugar and additives)
2. The retailer will be able to compare two beverage options and chose the healthier option.
3. The retailers will be able to select six healthy foods that will fit the criteria to become part of the Multnomah County Healthy Retail Network.

### **Literature Review:**

- (Hee-Jung Song, 2009): This article acknowledges the fact that healthy food interventions at corner stores have been studied very little. Its objective was to create an evaluation study to look at the feasibility of increasing healthy food options at corner stores in low-income communities. The three main feasibility components are acceptability, operationality and sustainability.

This study took place in East and West Baltimore, which are two of the poorest areas of Baltimore. This area also included a diverse cultural population, which is reflective of the cultural diversity of Multnomah County. For the study, ten healthy foods were promoted. Some of the healthy foods that were promoted cost about the same or less than the less healthy counterparts that they replaced.

The intervention strategies included: small monetary incentives; cultural guidelines to build better relationships with community members; nutrition education training and booklet; guidelines that provided guidance with regard to food purchasing, stocking and placing. The results of this study showed that the program had a modest but positive impact on increasing the availability of healthy foods.

In conclusion, this article states that in the future, studies need to take into consideration the perceived barriers of the storeowners, as well as the structural problems related to food stocking and ordering.

- (Melanie Jay, 2009): The objective of this randomized controlled trial was to look at the effects of a multimedia intervention to improve food label comprehension in a population of low-income patients in New York. It looks at the potential benefits of nutrition label reading, as well as the potential barriers of food label use. It acknowledges that the barriers to reading and understanding these labels is prevalent with people who have low literacy as well as those with low health literacy rates. They also explain the difference between general literacy and health literacy skills.

This study included a multimedia intervention to help the patients in this study better understand the food label. An interactive video along with a color-coded “stop light” food label was used to educate participants. The study took place at the Gouverneur Healthcare Services in New York City, where 23% of the population is Hispanic and 6% are Black, as well as 23% are living below the poverty line.

The results of their study shows that a brief, multimedia, interactive intervention improved understanding of the food label. The multimedia group had an increased improvement in short-term comprehension, when compared to the control group that received only the standard printed material. One of the advantages of the methods used for this study is that the people who were involved can take the pocket card home and use it as needed.

Some of the disadvantages included the fact that people with low health literacy didn't improve all that much. It is possible that the intervention was created at a reading level that was too high.

- (Russell L. Rotham, 2006): This article focuses on patients' ability to read food labels. It acknowledges that there is limited research on patient comprehension of food labels. It looks at the importance of numeracy, or being able to understand numbers, and how it plays a role in the patients' ability to read and understand food labels.

This was a cross-sectional study, including patients who were recruited from an

academic primary care clinic with a diverse socioeconomic range. The measures used were: a questionnaire regarding demographics and behaviors related to nutrition label usage, a validated health literacy measure, a validated measure of math skills, and a Nutrition Label Survey.

The results of the measures showed that most of the participants had relatively low literacy and numeracy levels. They also found that most of the participants were African American, had less education, have a lower income, and lack private insurance. Something of note is that many of the patients were confused by the complexity of the food label and had a difficult time finding the proper information on the label, or incorrectly used the information that was provided on the label.

This study found that many times people got confused with interpreting and using the serving size information, as well as understanding the percent daily value information. They found that even after adjusting for income and education levels, that the lower literacy and numeracy status still had a high correlation with poor understanding of the nutrition labels.

One of the conclusions was that it is important to educate patients about nutrition, and that some of the ways to improve patient knowledge and behavior include improve underlying literacy and numeracy skills and providing accommodations like improved communication and education techniques. They also got good feedback from patients of what they would like to see or not see on labels, and how to make them easier to read and understand. This is similar to what would be done for the HRN.

- (Tatiana Andreyeva, 2011): This article explains a study that was conducted, looking at healthy food options in convenience stores located in low-income areas. Retailers and managers of these stores were interviewed to understand their perception of demand and profit for different foods. The questions pertained to supply practice, barriers to stocking healthy food, and the role of WIC revisions. These retailers ran WIC and non-WIC participating convenience stores located in Connecticut. The survey was created using a structured interview.

The items that were assessed were: categorizing the suppliers; retailers' perceived demand for product; perceived profitability by product category; attitudes about selling healthy foods; and retailers' knowledge of new WIC foods.

The results found that retailers primarily took into consideration customer requests when deciding on which products to stock. Many of the retailers were interested in offering new products and selling healthy foods. One barrier to the retailers stocking healthier options

is that the unhealthy foods are more likely to be delivered directly to the store and shelved by the manufacturer, where as healthier options had to be self-stocked or obtained from a general distributor. Other common barriers to stocking healthy foods are customer dislike, as well as spoilage of the fresh fruits and vegetables.

**Significance:**

This project is an extremely important piece of a larger puzzle. The purpose of the Multnomah County Healthy Retail Network (HRN) is to try to bring healthy food options to local community convenience stores, or local corner stores. In order for this to happen, the retailers of those stores need to be able to correctly identify healthy foods and be able to order and stock those items.

The purpose of my project is to educate retailers so they can successfully read food labels to identify the healthy foods that are allowed through the HRN program. There are indications that reading food labels is challenging due to limited literacy level, health literacy level, and math skills. To be able to order and stock healthy food items, the retailers of these corner stores need to be educated on how to understand and use the food labels, not just in the short term but also for long-term use.

**Target Audience:**

The target audience will be the ethnically diverse local corner store/convenience storeowners who would like to or who are already participating in the Healthy Retail Network (HRN). Also considered, would be the HRN staff members who will be implementing the label use education. The inclusion/exclusion criteria, as defined by Multnomah County Health Department, are: storeowner interest in the program, willingness to adopt the requirements, and criteria such as the store's location and infrastructure.

**Implementation Details:**

Implementation will begin in January of 2012 and continue through March of 2012. Evaluation will take place in the spring of 2012, most likely in April and May. (See attached *Implementation Table*.)

Steps to follow:

1. An HRN representative will visit the existing corner store sites to talk with the owners/operators. Ask them about their comfort level is in reading the labels and ordering

the healthier food options. Ask them also how they learned how to read the labels in order to participate. Also ask them what they would have wanted to know when they joined (helpful tips for future Healthy Retail Network [HRN] store owners). Asking the storeowners what barriers they have encountered.

The information gathered here can be utilized when creating label reading education.

2. An HRN representative will visit potential new stores to talk to storeowners who are interested in the program to assess their readiness level to participate. Ask them about how well they can read and/or understand a food nutrition label. Also inquiring to see what kind of barriers and benefits they perceive in trying to join or by joining the HRN.

To be able to help educate the retailers on how to read/understand food labels, a step-by-step food label tool has been created. It breaks down the food label by parts, and explains which parts are important, and how to apply them to the HRN standards. (See attached *Workshop Steps*)

In addition to the Workshop Steps, a reference chart for amounts of calories, sugar, and saturated fat in accordance with the HRN guidelines has also been assembled. This was created to assist the retailers in calculating the amount of each that are in the products that they are looking to purchase. (See attached *Nutrient Label Reference Charts*)

The purpose of the Reference Charts and the Workshop Steps are to be able to create and implement an educational piece to deliver to retailers who are interested in joining the HRN. It will be useful and something that the retailers will be able to use in order to fulfill the objectives of the program. A pre- and post- survey will be created to evaluate the usefulness of the program.

### **Evaluation:**

A survey will be administered at the beginning of implementation, by a trained HRN representative, to prospective HRN retailers. This survey will be to judge where the retailers are in terms of literacy level, education level, interest, understanding of nutrition labels, and their ability and interest in adopting the program. Then after the implementation of the educational materials, there will be a post survey administered. This survey will be similar to the first one, to gauge their level of understanding and acceptance.

Another key component to the evaluation portion of this would be to follow-up with the retailers to see if they are now a part of the Healthy Retail Initiative, or if they were unable to successfully adopt the program. The evaluation would be used to find out if the retailers were able to take the nutrition label information and education and implement it.

**Facilities and Personnel Required:**

The two main facilities required are the Multnomah County Health Department (MCHD) and the corner stores that are involved. The MCHD is necessary to create the program, create the educational tools, and house the environment for the people who are working on the project to be able to collaborate. The corner stores are an imperative part of the program, since the entire program revolves around them.

Personnel required would include those MCHD employees who have created the program and who will be implementing it. They would have qualifications such as a background in public health and nutrition, and who have been involved with the HRN. These people would all be responsible for some part of the planning, implementing, and evaluation of the project, including visiting sites and educating the retailers. There would be continuous support from HRN staff for the retailers who are wanting to join, in the process of joining, or who already are part of the Healthy retail Network.

**Budget:**

Included in the budget are such things as labor cost (approx. \$15.00/hour per employee), material costs (educational materials, computer use, printing, etc...), as well as transportation cost. The funding for this program is through the Kaiser Permanente Grant, which will also help to fund the moneys given to the HRN stores that qualify by stocking eight or more healthy foods. The stores that stock eight healthy items or more will receive \$4500 to help with refrigeration and other stocking needs. At this time it is difficult to state what exact money is needed and where, this will be determined at a later date.

**Policy Implications:**

This project would initially make an impact on the local level in the communities that are most served by corner stores in the Greater Portland area. It influences organization policy, as it is a collaboration of many agencies and groups working together to create change and a positive impact. Once it is up and running, as well as successful, it has the potential to impact the state level, by spreading out to surrounding communities throughout the state of Oregon. If successful, it can be a role model for programs like it on a national level.

## References:

- Hee-Jung Song, J. G. (2009). A corner store intervention in a low-income urban community is associated with increased availability and sales of some healthy foods. *Public Health Nutrition*, 12, 2060-2067.
- Melanie Jay, J. A. (2009). A randomized trial of a brief multimedia intervention to improve comprehension of food labels. *Preventative Medicine*, 48, 25-31.
- Russell L. Rotham, M. M. (2006). Patient understanding of food Labels: the role of literacy and numeracy. *American Journal of Preventative Medicine*, 31, 391-398.
- Tatiana Andreyeva, A. E. (2011). Food retailer practices, attitudes and beliefs about the supply of healthy food. *Public Health Nutrition*, 14, 1024-1031.

### Website

U.S. Food and Drug Administration. How to Understand and Use the Nutrition Facts Label. Version Current 11 March 2011. Internet:  
<http://www.fda.gov/food/labelingnutrition/consumerinformation/ucm078889.htm>

## Addendum

### Implementation/Evaluation Table:

Step	Start	End
Visit existing stores/retailers to ask questions	January 2012	January 2012
Visit potential stores/retailers to talk about interest and readiness level	January 2012	January 2012
Administer pre-education survey questions to retailers	February 2012	February 2012
Educate retailers on reading labels, being able to pick healthy foods, and assess literacy and readiness levels	February 2012	March 2012
Administering post-education survey to retailers	March 2012	March 2012
Evaluation and report of educational program results	April 2012	May 2012

Nutrient Label Reference Charts
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### SNACK REQUIREMENTS

Calories per serving:

**MUST** be less than **200**

#### Sugar:

(Accept for fruits and vegetables)

\*May not exceed 35% by weight of the food

Per Serving Weight of food in ounces (oz)	Weight in grams (g)	35% Limit of Sugar in grams (g)
1 oz	12.5g	4g
2 oz	25g	8g
3oz	37.3g	13g
4oz	50g	17.5g
5oz	62g	21g
6oz	74.5g	26g
7oz	87g	30g
8 oz (1/2 pound)	99.4g	34g

#### Saturated Fat

\*May not exceed 10% of total calories

Grams (g) Sat. fat per serving	Calories (kcal) of Sat. fat per serving	Lower limit of total # calories per serving
1g	9 kcal	90 kcal
2g	18 kcal	180 kcal

3g

27 kcal

270 kcal

For example: If you have a granola bar that has 2 g of saturated fat, the entire granola bar must have at least 180 calories

Workshop Steps: Breaking Down the Nutrition Label

# How to Read a Nutrition Facts Label

Sample label for  
Macaroni & Cheese

1 Start Here →

2 Check Calories

3 Limit these Nutrients

4 Get Enough of these Nutrients

5 Footnote

Nutrition Facts	
Serving Size 1 cup (228g) Servings Per Container 2	
<b>Amount Per Serving</b>	
<b>Calories</b> 250	Calories from Fat 110
<b>% Daily Value*</b>	
<b>Total Fat</b> 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
<b>Cholesterol</b> 30mg	10%
<b>Sodium</b> 470mg	20%
<b>Total Carbohydrate</b> 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
<b>Protein</b> 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
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

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Quick Guide to % DV

• 5% or less is Low

• 20% or more is High

### Step 1: Look at the Serving Size

Serving Size 1 cup (228g)  
Servings Per Container 2

This first step is the most important and it will affect how you read the rest of the label. This area of the label will also give you a better understanding of how many servings total are in the package (servings per container). It gives you the measurement of the serving in familiar measurements, such as cups, and also in metric units, such as grams. This is important later, for looking at the sugar content.

### Step 2: Look at the Calories

Amount Per Serving  
Calories 250      Calories from Fat 110

This portion of the label identifies the number of calories per serving, as well as the total calories that are from fat. This is important to look at when you are trying to order healthy beverage and snack options. For example: when looking at beverage options to order, they must be 12 oz and no more than **180 calories**. This is also a good reference point when looking at Saturated Fat not exceeding 10% of **total calories**. Also, when you see instructions to look for **total calories**, that just means to look at the **calories per serving**, highlighted above.

### Step 3: Look out for Fats and Sodium (salt)

<b>Total Fat</b> 12g	<b>18%</b>
Saturated Fat 3g	<b>15%</b>
<i>Trans Fat</i> 3g	
<b>Cholesterol</b> 30mg	<b>10%</b>
<b>Sodium</b> 470mg	<b>20%</b>

These items are highlighted in yellow to remind you to limit these items in the diet. It is important to look at these when determining what to buy, if it will fit into the healthy food product list.

As mentioned above, the **Saturated fat** content of snacks cannot exceed 10% of total calories. In this example label, there are 3 grams of saturated fat. There are 9 calories per gram of fat. To calculate this, multiply the number of grams of saturated fat by 9. In this case, that would be 3g times 9 calories equaling 27 calories. To make sure that this is at 10% or less, multiply that number by ten, and make sure there is that number of calories or more preserving of the item. In this case: 27calories

times 10 equals 270 calories. Look back at the calories per serving part of the label. There are 250 calories per serving, so this food would not be allowed.

There is no **Trans Fats** allowed on the healthy foods list. This is listed on the label just under Saturated fat. If it is not listed, that means that the product does not have it.

The **Sodium** level is also very important to look at to see if it fits into the healthy foods category. The important food items that you need to limit sodium content on are: vegetable and fruit juice, cereal, bread, pasta, processed cheese, canned fish and canned meats.

#### Step 4: Look at the Sugar content

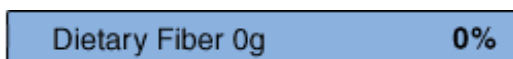


**Sugar** content is listed on the food label under **Total Carbohydrates**. This listing of sugar includes naturally occurring sugar, such as that in fruits and vegetables, as well as added sugars/sweeteners, which can be located in the ingredient list located below or next to the nutrition label.

The **sugar** content is important to look at to choose snacks that fit onto the healthy food list. These snacks cannot contain more than 35% by weight of the serving of the item. To calculate this, divide the amount of sugar by the serving size and multiply by ten to get the percentage. **Note:** make sure the units are the same (grams) and that you don't divide the grams of sugar into the cup of snack. In this example: 5g of sugar divided by 228g of snack equals 0.022 times by 10 (to get the percentage) equals 2.2%.

The **sugar** content of cereals is also important to look at when choosing a healthy cereal. The limit of sugar for the cereal to fit into the healthy category is 10g.

#### Step 5: Look at fiber content



The **dietary fiber** is listed under **Total Carbohydrates**, just above the sugars on the nutrition label. This is important to look at when choosing a healthy cereal. Cereals that fall into the healthy category have to have at least 3g of dietary fiber.

#### Step 6: Looking at the Ingredient list

The **Ingredient list** is usually located below or just to the side of the nutrition label. While it can sometimes be a challenge to read through the many ingredients listed, it can be important. The foods you need to look at ingredient lists for include: fruit/vegetable juice, yogurt, seeds and nuts, and nut butters such as peanut or almond butter.

In the case of finding foods to fit into the healthy food category, you may need to look for added sweeteners, sodium (salt), sugar and oil. It can be easy to find the added oil and salt, but it can sometimes be a challenge to find all of the added sweeteners and sugar because they have so many names. Sweeteners to look out for include: sugar, sucrose, maltose, honey, corn syrup, high-fructose corn syrup, molasses, glucose syrup, dextrose.