



STORE FOOD LABELLING: A COMMUNITY-BASED DIABETES PREVENTION PROJECT IN EYYOU ISTCHEE

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ABSTRACT

The Cree of Eeyou Istchee live in 9 communities spread out over a large area of Northern Quebec. The rate of type 2 diabetes in Eeyou Istchee is at least 3-5 times above the national rate. Cree of all ages are at risk of getting diabetes. Lack of health professionals specialized in nutrition limit individual intervention. Environmental approaches are therefore an important means to provide information to a larger group, especially in those isolated communities mainly serviced by local stores.

We report on the development of a food shelf-labelling project, adapted from a program recently implemented among the Atikamekw communities. The goal of the project is to educate people at the points-of-purchase. Labels had to be visual, use minimal wording, inform customers on food selection and follow the objectives of the Diabetes Prevention Program. Thirty-one labels, mostly aimed in reducing fat and sugar intake were developed in a stepwise process, allowing the population to be consulted at each stage of the development.

A pilot test was implemented for six weeks in Waswanipi, one of the southern communities of Eeyou Istchee. An awareness survey was then administered using a 9-item questionnaire among 45 persons, from all ages and gender. Respondents were either recruited at the local clinic or when leaving one of the grocery stores. Overall awareness of the project was 82.2% and 44.4% of interviewed people had at least sometimes used messages on the labels. These results show acceptance and awareness for the project.

ABRÉGÉ

Les neuf communautés criées sont réparties sur un vaste territoire qui s'étend sur la partie orientale de la Baie James au nord du Québec. Le taux du diabète de type 2 en Eeyou Istchee (territoire cri de la Baie James) est au moins de 3 à 5 fois supérieur au taux national. De plus quelque soit leur âge, les criés sont à risque de développer la maladie. Le manque de professionnels de la santé spécialisés en nutrition limite les interventions individuelles. Dans ces communautés isolées où la population n'a principalement accès qu'à des épiceries locales, il est important d'utiliser des approches environnementales pour diffuser l'information à une plus grande échelle.

Nous présentons un projet d'étiquetage nutritionnel développé au sein des épiceries de l'Eeyou Istchee. Ce projet est l'adaptation d'un programme récemment implanté auprès des communautés atikamekw. Le but du projet est d'éduquer les consommateurs aux points d'achat, à l'aide d'étiquettes disposées sur les tablettes. Les étiquettes doivent être visuelles, utiliser un minimum de mots, informer la clientèle sur les meilleurs choix alimentaires et suivre les objectifs du programme de prévention du diabète. Trente et une étiquettes ont été développées en plusieurs étapes, pour permettre à la population concernée d'être consultée et de donner son opinion au fur et à mesure de leur développement.

Un projet pilote a été implanté pendant six semaines à Waswanipi, une des communautés les plus au sud du territoire, suivi d'un sondage qui vérifiait la prise de conscience des consommateurs au sujet des étiquettes. Un court questionnaire de neuf points a été administré auprès de 45 personnes, d'âges et de sexes confondus. Les répondants ont été recrutés à la clinique locale ou lorsqu'ils sortaient de l'épicerie. Quarante deux pourcent d'entre eux ont mentionné avoir vu les étiquettes et 44% avaient au moins quelquefois, utilisé leur message. Ces résultats nous ont permis de constater l'acceptation et la bonne réception du projet.

INTRODUCTION

For thousands of years, the Cree of Eeyou Istchee in Northern Quebec were subsistence hunters and fishers, living a nomadic life. In the past twenty years, a growing availability and increasing use of market foods as well as a decrease in traditional subsistence activities (hunting, fishing, trapping and picking berries) was observed. These changes parallel an increase in obesity, diabetes and other chronic diseases.

The Annual Diabetes Update (Eeyou Istchee, May 2002) has reported a decline in the incidence of type 2 diabetes, compared with previous years. Despite this reduction, 12.7% of Cree older than age 15 have been diagnosed with diabetes and Cree of all ages are at risk; consequently, type 2 diabetes continues to be a serious problem in the nine Cree communities.

Emergence of diabetes has previously been linked to high levels of obesity, especially among women (Daveluy et al, 1994). Since several years, various interventions have undergone in the Cree communities to manage diabetes, as well as to prevent more spreading of the disease.

Healthy eating habits remain a cornerstone in the management of all diabetic patients as well as people suffering from obesity; yet adherence to healthy eating patterns is greatly influenced by the food environment, especially in isolated communities mainly serviced by local stores. In a context where healthy food is not always accessible and available at a reasonable cost, planning a well-balanced meal can be a challenge each time a person is doing grocery shopping. Strategies such as nutrition education at points of purchase are therefore needed to help people make healthier dietary decisions when they go to their store.

LITERATURE REVIEW

Environmental approaches are an important means to disseminate cost-effective information to an entire community. As defined by Glanz they are all strategies that do not require individuals to self-select to a defined educational programme; in other words, such settings where food is provided, prepared, sold or served are especially suitable for environmental programmes (Glanz, 1993); more specifically, the grocery stores have become a focal point for providing point-of-purchase nutrition information (Pennington et al, 1988).

According to Light and coll. (1989), four factors contribute to the development of nutrition strategies among supermarkets:

1. Grocery shoppers represent all segments of society;
2. On average, people go to the grocery store 2.3 time each week;
3. Nutrition is a very important factor in the food purchasing decision;
4. Eighty percent of the food purchasing decisions are made at the point-of-purchase.

Shelf labels can be an efficient way to directing customers towards nutritious food choices. Their location in strategic points of the supermarket is important, as well as the content of their information. In their review of intervention studies that evaluated the effectiveness of nutrition education, Contento and coll. observed that signs comparing brands based on harmful ingredients (such as sugar or fat) have a greater impact on consumer behaviour than health-promoting ingredients (1995). Yet, some evidence also suggests that consumers will more easily replace an unhealthy product by its healthy counterpart if the difference in other quality characteristics (such as taste) between both products is relatively small (Mario, 1997).

Table 1 presents results from several community-based nutrition campaigns and shows the results of each strategy. Despite the large variation in the duration of the programs,

length did not seem to be the leading factor that influenced their effectiveness. Yet, when they defined the important elements that will contribute to the success of a supermarket nutrition program, Light and coll. recommended executing programs for at least a year to obtain optimal results (1989). They also mentioned the following key factors that may increase program effectiveness:

- ↳ Message developed should be relevant to consumer interests and concerns;
- ↳ Point-of-purchase shelf labels should direct consumers to healthful foods;
- ↳ Practical nutrition information provided must come from credible sources;
- ↳ Program designed should be highly visible to help shoppers distinguish nutrition programs from commercial food advertising;
- ↳ Mass media advertising and community ties should be used to make shoppers aware of the program;
- ↳ Researchers should work effectively with supermarket personnel.

Table 1 - Review of point of purchase programs

Name	Focused nutrients/food	Duration	Educational tools	Results (effectiveness)
Use of nutritive composition data at the point of purchase <i>(Muller, 1984)</i>	Nutrients varied according to food	2 weeks	Suspended tabular signs showing a list of nutrients perceived as "important" for the selected food item	Observed shift of sales toward brands with a nutritional advantage; overall impact of the signs differed according to the product and the week
Food for Health <i>(Ernst et al, 1986)</i>	Reducing fats, cholesterol and calories	1 year	Four-page brochure, shelf signs, posters	Significant increase in consumers' knowledge; no apparent changes in the sales

Table 1 (cont'd)

Name	Focused nutrients/food	Duration	Educational tools	Results (effectiveness)
Salt Reduction Program <i>(Glascoff et al, 1986)</i>	Low salt	6 months	Signs called "shelf-talkers" with illustration of falling salt shaker; promotion in local newspaper and radio stations	Statistical significance of awareness and use of low salt products from hypertensive participants
Shop Smart for Your Heart Grocery Program <i>(Mullis et al, 1987)</i>	Low fat, low sodium, low-fat/low-sodium	4 months until evaluation	Small heart to identify heart-healthy foods in the flyer	Increased awareness influenced food choices of the population-based participants (not store-based)
Pantucket Heart Health Program <i>(Hunt et al, 1990)</i>	Reduced fat, cholesterol, sodium	4 years	Multi-coloured shelf labels; posters, free recipe cards; periodic promotions	Increased awareness of shoppers influenced their purchase behaviour
Lifestyle 2000 experience <i>(Scott et al, 1991)</i>	Low fat dairy products, fresh fruits and vegetables, bread and cereal products	15 weeks	Displayed material in supermarkets; mass media campaign and promotional activities (competitions, taste testing and cooking demonstrations)	High awareness of the promotion accompanied by some self-reported behaviour change
Special Diet Alert <i>(Schucker et al, 1992)</i>	Low or reduced in sodium, calories, cholesterol and fat	2 years	Shelf markers and information booklets	On average, 12% increased market shares of shelf-tagged products
Shop for Your Heart <i>(O'Loughlin et al, 1996)</i>	One month for each food group: <ul style="list-style-type: none"> • Fruits/vegetables • Dairy products • Lean meats/ substitutes • Breads/cereals 	4 months	Special events; ongoing display; posters; bulletin board; grocery bags with campaign logo; pamphlets; recipes; monthly lottery for cookbooks; taste-testing	Moderate awareness of the campaign and low use; change in purchasing behaviours not measured

Table 1 (cont'd)

Name	Focused nutrients/food	Duration	Educational tools	Results (effectiveness)
1% or Less Campaign (Reger et al, 1998)	Saturated fat reduction by switching from high-fat to low-fat milk	2 months	Newspaper, TV and radio ads; press conference; supermarkets display signs; school-based activities; community education programs	Market shares of low-fat milk significantly increased from 18% of overall milk sales at baseline to 41% at one month follow-up and to 35% at six months
M-Fit Supermarket Program (Lang et al, 2000)	Low in total fat, saturated fat, cholesterol, sodium, high in total fibre	1 month	Colour-coded shelf labels; promotional materials	Modest awareness of the program; increased use in those aware

Besides the programs enumerated in Table 1, the *Witchihewin miro pimatisiwinik itekera* program should be explained in more details, mainly because it was designed for and implemented among the Atikamekw (a group of natives living in three communities close to La Tuque, Québec). Its main objective was to improve eating habits of the Atikamekw population to decrease health problems associated with poor nutrition and lifestyles; more specifically, it was designed to help people adhere to the *Attikamekw Food Guide* through nutrition information in the community grocery stores.

In the *Witchihewin miro pimatisiwinik itekera* program, 31 shelf labels were developed to educate people to decrease their salt, sugar and fat consumption, as well as to increase their fibre intake (Huet and Mercille, 2001).

Evaluation of the Atikamekw program consisted in comparing pre and post implementation sales, over an eleven-month period. For technical reasons, evaluation was performed in one of the three communities. It was expected that sales of some selected food should have increased for the following food categories: whole grain cereal products, fruits and vegetables, fruit juices, potatoes, lean meat, lower fat dairy

products, diet pops, better quality fats; while sales of food should have decreased for food categories such as refined cereal products, fruit drinks, fattier meat, regular dairy products, regular pops, frozen French fries or chips, lower quality fats.

Results of sales analysis showed that a significant increase was observed only for leaner meat. Major limits of this evaluation are the lack of control store and the fact that consumers may go outside the community to shop. To improve impact of such program, author suggests increasing label visibility as well as their promotion (Huet, 2003).

GOALS AND OBJECTIVES

The *Food Labelling Project among Eeyou Istchee* was adapted from the *Witchihihewin miro pimatisiwinik itekera* program.

Its goal is to decrease the incidence of diabetes in the nine Cree communities by giving the population means to manage or prevent obesity and diabetes.

Its main objective is to improve the quality of the Cree diet through suitable, more educated market food choices by guiding consumers at their points of purchase.

A year after implementation of the labels in the Eeyou Istchee stores, the following results should indicate project effectiveness:

- ↳ Sales of products identified as “healthy” or those with a reduced calorie version will increase by 25%;
- ↳ Sales of products identified as “regular” or high in fat or sugar will decrease by 25%.

METHODS

The *Food Labelling Project* has two components: the shelf labels and the grocery tours.

A. Shelf labels

In health education, it is essential to know the target group and tailor the messages accordingly (Weeks, 1995). On average our target group has a low educational level (partial or completed high school), thus in addition to straightforward messages, information provided on the labels had to follow some simple yet important criteria to influence project success; they had to:

- ↳ Be visual and colourful;
- ↳ Use minimal wording, yet still be informative;
- ↳ Guide customers on food selection with comparative messages.

The project is funded by the Regional Diabetes Prevention Program, Thus, to be in line with the objectives of the program, messages on the labels mainly concentrate on sugar and fat intake reduction, yet some of them also promote fibre consumption.

Labels were developed using a stepwise approach; as the effectiveness of using focus groups to evaluate the pedagogic needs of learners has been recognized (David and Greer, 2001), each draft was presented to selected people living in Eeyou Istchee.

1) Phase 1

Twelve labels constituted the first draft. They were presented in Waswanipi, Mistissini, Waskaganish, Eastmain and Chisasibi. These communities were chosen because they were representative of the variety observed among the nine Cree communities, in terms of size and geographical location (inland vs. coastal).

That first visit also served to introduce the project to the local Public Health Officers (PHOs), the Community Health Representatives (CHRs), as well as the food store managers.

2) Phase 2

The second visit was spent in the southern communities (Waswanipi, Mistissini, and Ouje-Bougoumou). Twenty three labels constituted the second draft; purpose of the visit was to present labels to community members to:

- ↳ Verify their cultural relevance,
- ↳ Refine their quality,
- ↳ Improve the comprehension of their message.

A total of 24 people were consulted through group discussions or individual meetings. Respondents were either Cree or non natives working on the territory (mostly health professionals); they came from different age groups, sex and education level.

In order to obtain spontaneous information, labels were showed to participants one by one and all reactions and suggestions were noted. Depending on the answers, interviewer sought for additional information through a series of prepared questions that gave respondents opportunity to express their opinion:

1. Is the message understandable?
2. Are colours appropriate?
3. Is the wording clear?
4. Do pictures create distortion of the message?
5. What can be added or removed to improve quality of the label?
6. Is translation in Cree needed?
7. Is addition of a background necessary; if so, what kind of background?

The following suggestions or comments emanated from the consultation meetings; in general, respondents appreciated the fact that all labels were visual. The messages “Instead of” and “Try” that imply an alternative choice were also positively received. Participants suggested to use an identical background on each label as well as to translate them into Cree syllabics. Finally, they recommended using a red and green colour-coding system within the same label to respectively show customers the food choice to limit, and its healthier alternative.

To pre-test the instrument and gather shoppers’ reaction in the food stores, a trial was held in the Waswanipi store. Selected time to do the trial corresponded to the daily peak in selling activities (as indicated by the store manager). Twelve labels were chosen and displayed around the store in front of the matching foods.

Several clients were informally interviewed after having read the labels; their main comment was that even if the message was clear and the illustration attractive, this would not influence their buying choice. It is worth noting that respondents were mostly teenagers or young adults; as Croll and coll. concluded in their investigation about the importance of healthy food intake among adolescents, this group has a general lack of concern regarding healthy eating recommendations (2001); this may thus explain the respondents’ reaction in this trial.

Most people living in Waswanipi, Mistissini or Ouje-Bougoumou do part or all their grocery shopping in Chibougamau. Closeness of that city emphasized the importance to promote healthy food as well in the Chibougamau stores; the *Food Labelling Project* was then presented to the managers of the three Chibougamau supermarkets.

Store visits

A total of fifteen food stores, including the three supermarkets in Chibougamau were visited during phase 1 and 2. During the store visits:

↳ *Food Labelling Project* was presented to the managers;

- ↳ Food availability in each point of purchase was assessed (Annex 1 presents a copy of the document used to list the food offered in stores);
- ↳ A small questionnaire was administered to the managers to check their openness to participate in the project and their willingness to improve the quality of the food offered to customers (see Annex 2 for copy of the questionnaire).

Responses from the store manager questionnaire have been summarized in the following paragraphs.

Fifty six percent of the managers mentioned that some of their regular customers have at some point, requested a special food not normally available. Types of food currently asked for were diet, light or organic foods. Criteria used by managers to decide about the ordering are space availability (44%), product availability (33%), and saleability (33%). Other criteria enumerated with lesser importance (11% each) included other brands availability, distribution and reordering. Finally, 33% of the managers order food simply to please a customer.

Almost 80% of the time, customers will buy a new food available in their store. However, some clients would also either stop buying it or return to their regular product after the first excitement has vanished. The majority of customers (80%) will buy the regular food even if a light or a diet version is available. Yet 33% of the time, this decision will vary according to the food or if the client has a health problem.

All food managers interviewed mentioned their willingness to order new foods if part of the *Food Labelling Project* suggests healthier choices. Most of them (77%) would also rearrange the shelves to make healthier products more visible or more accessible to their clientele.

More than 80 percent of interviewed managers said they at some point tried to introduce a healthier food in their store. Yet, customers would not necessarily buy it. Finally, we asked food managers their personal opinion about cost associated with purchase of healthy foods. Two third of them did not think that buying healthy products was more expensive; however, a small proportion of their customers (13%) had reported to them that eating healthy costs more.

3) Phase 3

In order to refine the labels to their final state, a third visit in the James Bay region was undertaken in Chisasibi. As for the previous phases, group discussions were held with Cree natives and health care professionals to seek comments and suggestions that would improve the labels.

To demonstrate the feasibility of the project approach to provide both information and education at point of purchase, a four-day trial was realized in the Northern food store. In theory, the trial would consist of putting the labels on the supermarket shelves and doing a grocery tour with one or several groups. Yet in practice, the tour was not feasible for two reasons. Firstly, the selected week occurred just prior to Christmas and people were either away from the community or occupied to prepare the celebration. Secondly, funerals in the community postponed all activities for some time. Nevertheless, labels were implemented in the store; they were attached either horizontally or perpendicular to the product shelving, and were kept on the shelves for four days.

Finally, to ensure that presence of the project coordinator (a non-native) at the previous meetings had not influenced participants' answers or comments, two last discussion groups were organized in Chisasibi and Waswanipi. Two Cree natives with a good knowledge of the project and of nutritional issues conducted the sessions.

Results from the group discussions were in line with the previous ones. Some of the labels had to be explained to one elder. This incomprehension was not due to confusing

messages but simply because labels had not been translated in Cree. This comment reinforced the necessity of having bilingual messages on the labels.

4) Pilot project

The pilot project was implemented for six weeks in both Waswanipi grocery and Oudaa stores. The launching was announced during the Bingo and on the community radio. Labels were strategically placed on the shelves in front of the food they represented. A food-tasting was organized at the entrance of the Oudaa store the evening of the implementation. The pilot project was evaluated at the end of the six week period.

Evaluation process consisted in assessing awareness and use of the food labels in the community. Instrument used was a 9-item questionnaire (see Annex 3 for copy of the questionnaire) administered among 45 persons from all ages and gender (this number represents about 3% of this community population). Respondents from the local clinic self-administered the questionnaire (n=17); those recruited at the Oudaa grocery store were randomly selected while living the store (n=28). Process of randomization was simple: each time the interviewer had finished with a respondent, the next person to exit was selected. If a person refused to be interviewed, the next one was asked.

Results of evaluation are presented in table 2.

Table 2 - Waswanipi Food Labelling Pilot Project - Results of evaluation process

Questions	Answers	All respondents (n=45)	Respondents from the clinic (n=17)	Respondents from the store (n=28)
Q1 - Are you aware of the food labelling project in your grocery store?	Yes	82% (37)	94% (16)	75% (21)
	No	18% (8)	6% (1)	25% (7)
Q2 - If yes, how often did you use the messages on the labels?	Always	2% (1)	6% (1)	-
	Often	7% (3)	12% (2)	4% (1)
	Sometimes	36% (16)	47% (8)	29% (8)
	A little	7% (3)	18% (3)	-
	Did not use	29% (13)	12% (2)	39% (11)
	Not sure	2% (1)	-	4% (1)
	Not Applicable	18% (8)	6% (1)	25% (7)
Q3 - How did you hear about the project?	On radio	9% (4)	12% (2)	7% (2)
	At the bingo	-	-	-
	Seen in supermarket	51% (23)	41% (7)	57% (16)
	Health care professional	11% (5)	24% (4)	4% (1)
	By word of mouth	9% (4)	12% (2)	7% (2)
	Not Applicable ⁽¹⁾	16% (7)	-	25% (7)
	Combined answers ⁽²⁾	4% (2)	12% (2)	-
Q4 - How many times a week do you come to this grocery store?	Average	4.33 ⁽³⁾	4.33	4.33
	Many times	✓ ⁽⁴⁾	✓	-
	Whenever	✓ ⁽⁴⁾	✓	-
	Several times	✓ ⁽⁴⁾	-	✓
Q5 - Are you suffering from Diabetes?	Yes	11% (5)	24% (4)	4% (1)
	No	84% (38)	76% (13)	89% (25)
	No Answer	4% (2)	-	7% (2)
Q6 - Is anybody in your household suffering from Diabetes?	Yes	24% (11)	35% (6)	18% (5)
	No	71% (32)	65% (11)	75% (21)
	No Answer	4% (2)	-	7% (2)
Q7 - Gender	Male	22% (10)	24% (4)	21% (6)
	Female	78% (35)	76% (13)	79% (22)
Q8 - Age group	Child (6-12 yrs)	4% (2)	-	7% (2)
	Teenager (13-19 yrs)	7% (3)	-	11% (3)
	Young adult (20-44 yrs)	76% (34)	88% (15)	68% (19)
	Adult (45-64 yrs)	13% (6)	12% (2)	14% (4)
	Elder (65 yrs or more)	-	-	-
Q9 - Level of education	Elementary	11% (5)	6% (1)	14% (4)
	Some high school	42% (19)	18% (3)	57% (16)
	High school graduate	16% (7)	35% (6)	4% (1)
	College or higher	29% (13)	35% (6)	25% (7)
	No Answer	2% (1)	6% (1)	-

⁽¹⁾One person who stated *no* at Q1 answered the present question.

⁽²⁾Combined answers: "On radio, Seen in supermarket, Health care professional and by word of mouth" n=1;

"Seen in supermarket and Health care professional" n=1

⁽³⁾This calculated number is based on 42 respondents

⁽⁴⁾One answer for each choice

The vast majority of the respondents were young adults (between 20 and 44 years old), mostly females (78%) and were not suffering from diabetes (84%). According to our data, participants shopped an average of 4.3 times a week in that store.

Overall awareness of the shelf-labelling project was 82.2%; from that percentage, 44.4% of the clients surveyed had sometimes used messages on the labels. Our results from the 6-week pilot study show acceptance and awareness for the project. This is in accord with other studies that previously confirmed a positive impact of the point of purchase nutrition interventions on customer behaviours, especially over a long period of time (Ernst et al, 1986; Glascoff et al, 1986; Mullis et al, 1987; Hunt et al, 1990; Scott et al, 1991).

5) Label final version

Table 3 lists by food category, the 31 labels that constituted the final version. Copy of the labels is also presented in Annex 4 according to the food category they belong.

Table 3 - List of the final food labels

Food category	Label name	Food category	Label name
Beverages	Water Crystal drink or water Bottle of 2 litre Pop Can of Pop Can of iced tea	Dairy products	Coffeemate Singles low fat cheese Low fat cheese Milk comparison Yoghurt/milk as snack
Snack foods	Chips Chips/popcorn and minutes of walking Chips/cheese stick or popcorn Cheese Sticks Snack on fruits Snack on veggies	Meat & alternates	Chicken comparison Hamburger meat Cold cuts Klik or alternates
Starch	Dry cereals Porridge Brown bread Fries or baked potato Whole wheat flour	Fats	Mayonnaise comparison Miracle whip comparison Lard or oil
		Sweets	Jello Jam Sweets & fruits

Three different types of educational messages are applied on the labels:

- ↳ Comparative messages use a colour-coded system; in red the message promotes moderation or avoidance of a food, while the green colour is used to recommend a food. An example would be the label on regular Pop compared with its diet version.
- ↳ Informative labels simply indicate what the food contains, hoping this information will influence customer's choice towards a healthier product or discourage him/her to buy the food. An example would be the label indicating the number of teaspoons of fat in one bag of chips.
- ↳ Positive labels point out healthy food. An example would be the label on water.

Labels were translated in Cree. Due to regional differences in Cree language three sets constituted the final version (see Table 4 for details).

In addition, a special set was made for the supermarkets in Chibougamau. That city being under the Quebec jurisdiction, commercial signs are regulated by Bill 101 and have to be in French.

Table 4 - Cree language according to community

LANGUAGE	COMMUNITIES
Inland Cree/English	⇒ Ouje Bougoumou ⇒ Mistissini
Southern Cree/English	⇒ Waswanipi ⇒ Nemaska ⇒ Waskaganish ⇒ Eastmain
Northern Cree/English	⇒ Wemindji ⇒ Chisasibi ⇒ Whapmagoostui
Inland Cree/French	⇒ Chibougamau

Both languages (English/Cree or French/Cree) fitted on a single label, except for one label that due to lack of space for the translation, had to be duplicated to show the two languages.

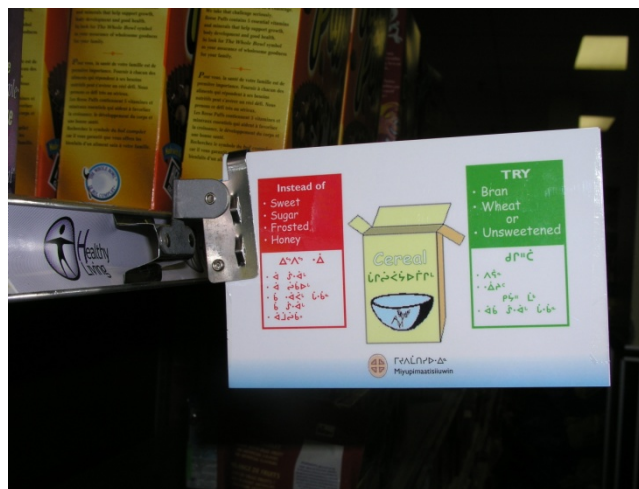
When the project was presented to the food managers, they requested that label size would not exceed that of the promotional signs currently displayed in stores; label dimension was thus established at 14.0 cm by 9.0 cm. In Chibougamau, requirements were stricter; as a result size of labels was decreased to 14.0 cm by 6.3 cm. Format and presentation of the last version of the labels were realised by a graphic designer. They were then printed on one side and laminated.

6) Implementation process

Based on the evidence showing a high level of awareness in the Waswanipi pilot project survey, implementation of the *Food Labelling Project* was officially launched in all nine Cree communities, as well as in Chibougamau. This process occurred over a five month period, from June to November 2003.

Labels were either clipped or taped on the shelves. Their arrangement depended on the store; they could be installed against or perpendicular to the product shelving; with the latest arrangement, two labels were clipped back to back; this would allow shoppers to see them from both ends of an aisle. Figure 1 gives an example of a clipped label perpendicularly placed on the shelf.

Figure 1 - Example of label placement on the shelf



The following communication and educational strategies were used for enhancing project awareness:

- ↳ Posters presenting labels placed in selected locations around the communities;
- ↳ Local radio announcement (see example in Annex 5);
- ↳ Announcement made at social occasions such as during Bingo night or at a community feast;
- ↳ Word of mouth mainly initiated by community health professionals.

Numerous participating activities such as food tasting, cooking workshop or grocery tour were realised at the time of the project implementation to stimulate consumers' interest towards new food and promote healthy eating (see Table 5 for list of activities by community). Due to lack of interest from the store manager and decreased participation from the community members, none of the activity could be done in Nemaska.

Table 5 - List of activities realised during the *Food Labelling Project* implementation

Community	Food tasting	Grocery tour	Other activities
Participating communities (number of participants)			
Whapmagoostui	Yes (n=50)	Yes (n=9)	-
Wemindji	Yes (n=30)	Yes (n=2)	-
Mistissini	-	Yes (n=2)	Healthy food served during a community feast
Nemaska	-	-	-
Waswanipi	-	-	1 cooking workshop (n=45)
Ouje-Bougoumou	-	-	1 cooking workshop (n=8)
Chibougamau	-	-	-
Chisasibi	Yes (undetermined # of participants)	-	3 cooking workshops (n=50, 12 and 20)
Eastmain	Yes (n=20)	Yes (n=3)	-
Waskaganish	-	-	2 cooking workshops (n=12 and 20)

B. Grocery tours

Shelf labelling is one tool that may suggest suitable food choices to the Cree customers. In order to reinforce information on the labels and to further stimulate the adoption of healthy behaviours, a grocery tour was developed.

Objectives of the grocery tour are to give participants:

- ↳ An introduction to the shelf labels;
- ↳ Assistance to better understand the nutrition information on products;
- ↳ Choices of possible food alternatives lower in calories, fat and sugar and higher in micronutrients and fibre;
- ↳ Guidance toward the healthier choices.

A Grocery Tour Manual was produced to assist the person(s) responsible for the grocery tours (mostly nutritionists and CHRs). Project coordinator presented the workbook in each community and guided the first groups. Health educators less familiar with this kind of activity received additional training.

The manual provides standardized information, adapted to the Cree food availability in Eeyou Istchee and contains reproducible leaflets that can be distributed to clients.

The tour starts with a short introduction to explain its purpose and to show participants how to read the nutrition labelling on pre-packaged foods¹. Next, the group goes along the store aisles and stops in front of the shelf-labels. The person guiding the tour explains the best choices and notes the fat or sugar content of various foods. To stimulate participants' interest and encourage them to practice reading nutritional

¹ A differentiation should be made between *Nutrition Labelling* and *Shelf-labels*. *Nutrition labelling* is the standardized presentation of the nutrient content of a food, based on a specific amount of food. It will appear on most pre-packaged foods in a table format with the title "Nutrition Facts". Additional information found on the foods is the "List of Ingredients" and sometimes the "Nutrition Claims" (Health Canada, 2003). *Shelf-labels* are the educative labels developed for the *Food Labelling Project*.

information on the packages, several quiz/games are given. The tours last from 60 to 90 minutes. Participants receive various pamphlets to take home, such as comparison tables on snacks, how to be careful with nutrition claims, etc (see Annex 6 for complete sample).

In the future, it will be the task and the responsibilities of the nutritionists or the CHRs to motivate the population to attend to the tours.

EVALUATION

An evaluation process will follow to determine the success in achieving our objectives and delivering the messages of this point of purchase nutrition education.

The shelf labels will stay for one year in each point of purchase. The intent of the evaluation is to compare sales data six months prior to project implementation and six months after the end of the campaign.

Sales data are already collected in three stores for six one-month periods in Whapmagoostui, Wemindji and Waskaganish, while in Mistissini report is based on a six-month combined data. It is also planned that the Northern Store in Chisasibi will give us access to their records (because they are computerized, data are kept for several years).

Another possible evaluation process that may be realized at the end of the project is a similar assessment to what was done during the pilot project in Waswanipi (i.e. a respondents' awareness assessment).

CONCLUSION

The goal of the present project is to provide to the Cree population, an informative and educative environment that will encourage healthier food choices at the points of purchase. All stores from Eeyou Istchee have adopted the *Food Labelling Project*. This is the first step towards success. As the Cree stores are owned by different companies or persons (either Cree or non-natives), the project does not become proprietary-based. It is hoped that this will have a positive influence on the population's buying patterns and food selection.

To maintain interest during the implementation, information on specific foods, product brands, nutrient content, etc. have to be provided by health professionals through various educational strategies such as the Grocery Tours or food-tasting. Periodic promotional activities may also be necessary such as local radio advertising, recipe contest or food preparation demonstrations; the latest activity has already been initiated in some of the communities and is well appreciated by the population.

Finally, as a continuation of this environmental approach, another project is undergoing in the Cree communities, the *Good Food Restaurant & Cafeteria* project whose objective is to give a supportive environment that will encourage healthier food choices in restaurants and cafeterias of Eeyou Istchee.

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ANNEXES

FOOD CATEGORIES

	Product available Y or N	Light version* available Y or N	Comments
Dairy products			
Yoghurt			
Liquid milk			
Evaporated milk			
Powdered milk			
Coffee Mate			
Carnation products			
Cheese			
Cream cheese			
Ice cream			
Canned foods			
Tuna			
Salmon			
Other fish			
Meat			
Fruits			
Applesauce			
Canned meal			
Condiments			
Mayonnaise			
Salad dressing			
Other sauces			

	Product available Y or N	Light version* available Y or N	Comments
Meat products			
Cold cuts			
Sausages			
Beef			
Ground beef			
Pork			
Veal			
Chicken			
Other meat			
Grain products			
Ready-to-eat cereals.			
Cooked cereals			
Cookies			
Crackers			
Bread			
Flour			
Frozen foods			
Frozen diner			
French fries			
Lean Cuisine			
Pizza			

	Product available Y or N	Light version* available Y or N	Comments
Other foods			
Pop drinks			
Punch/drink			
Chips			
Pretzels			
Popcorn			
Jam/jelly			
Peanut butter			
Margarine			
What fruits/vegetables are available?			
Alcohol			
Beer			
Wine			

* Light version means a substantial decrease in calories compared with the regular product. The difference is either attributed to a fat or a sugar content reduction, or leaner choices for the meat.

QUESTIONS FOR STORE MANAGERS

Community:	Store:	Manager:
------------	--------	----------

Date:

A food-labelling program is presently being developed for the local community stores. This project is part of the Diabetes Prevention Program. The main purpose of this project is to help consumers make educated and proper food choices at points of purchase. This will give people means to prevent or control diabetes.

Have any of your regular customers asked for special foods that you normally would not order?

Yes No

If yes, what type of food?

What criteria do you use to decide if you will order this request?

What were your customers' reactions when you introduced a new food into the store?

If a regular and a light version of a food are available, which one in general will be the best seller?

Will it vary according to the food? Yes No

Please give examples _____

If part of the food labelling project involved suggesting new, healthier choices, would you be ready to:

Order these new foods? Yes No

Rearrange your shelves so that healthier products would be more visible or more accessible for your customers? Yes No

Have you ever tried to introduce foods that are considered healthier (i.e. lower fat cheese)?

Yes No

If yes, what was your customers' reaction?

Do you think healthy foods are more expensive?

Yes No

Do any of your customers ever tell you that eating healthy cost more?

Yes No

To help me select the best food categories to be labelled would you help me identify the foods that you sell most often?

FOOD LABELLING - WASWANAPI PILOTE PROJECT EVALUATION QUESTIONNAIRE

To the interviewer:
✓ Assure participant that:
• All information will remain confidential
• S/he has the choice to refuse answering any question
✓ Please either check the right answer in the appropriate box or write the answer next to the question

- 1. Are you aware of the food labelling project in your grocery store?
 Yes No

- 2. If yes, how often did you use the messages on the labels?
 Always
 Often
 Sometimes
 A little
 Did not use
 Not sure (for the respondents unable to categorize their use)

- 3. How did you hear about the project?
 On radio
 At the bingo
 Seen in supermarket
 From health care professional
 By word of mouth

- 4. How many times a week do you come to this grocery store?.....

- 5. Are you suffering from Diabetes?
 Yes No

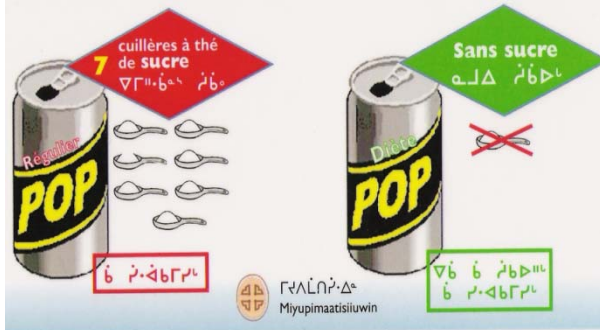
- 6. Is anybody in your household suffering from Diabetes?
 Yes No

- 7. Participant's gender
 Male Female

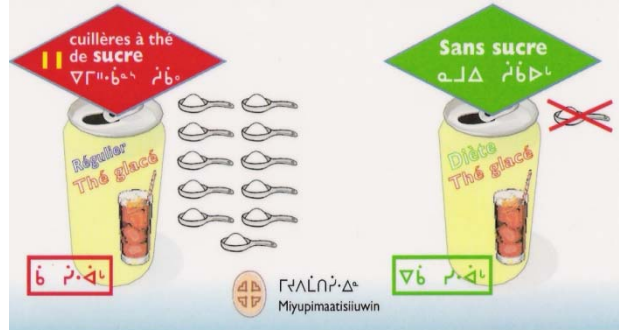
8. Participant's age group <input type="checkbox"/> Child (6-12 years) <input type="checkbox"/> Teenager (13-19 years) <input type="checkbox"/> Young adult (20-44 years) <input type="checkbox"/> Adult (45-64 years) <input type="checkbox"/> Elder (65 years or more)	9. Participant's level of education <input type="checkbox"/> Elementary <input type="checkbox"/> Some high school <input type="checkbox"/> High school graduate <input type="checkbox"/> College or higher
---	--

Thank you for your cooperation and your time

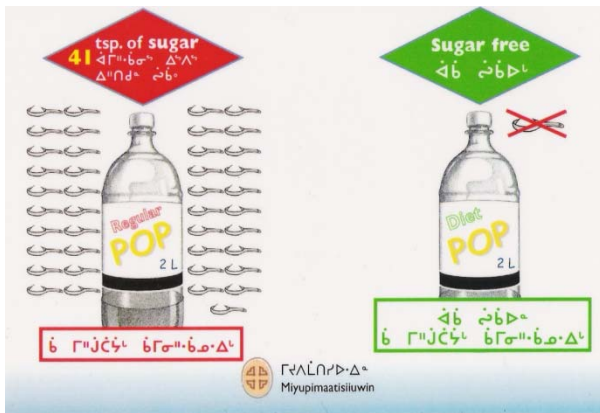
BEVERAGES



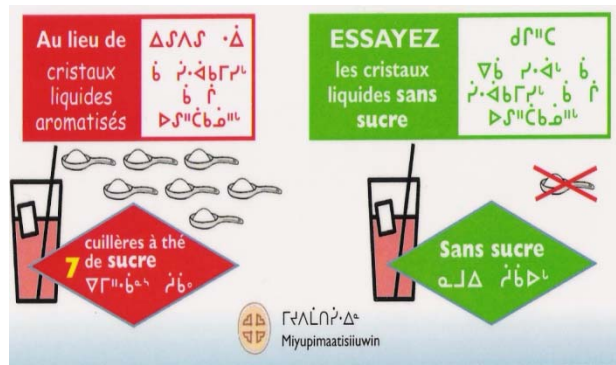
Can of Pop



Can of iced tea



Bottle of 2 litre Pop

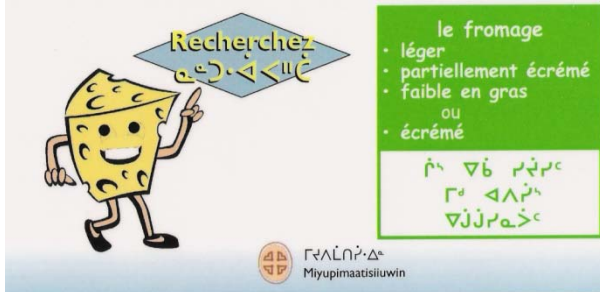


Crystal drink or water



Water

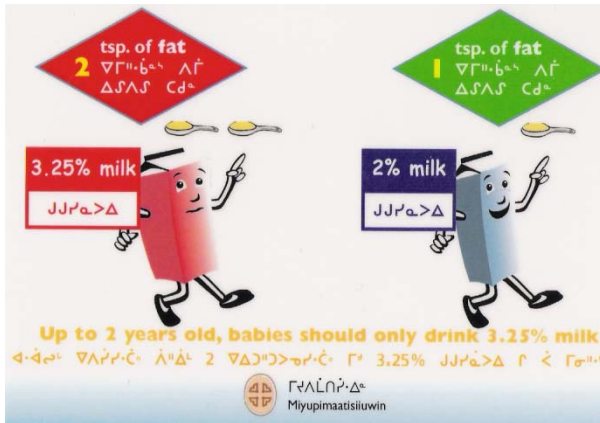
DAIRY PRODUCTS



Low fat cheese



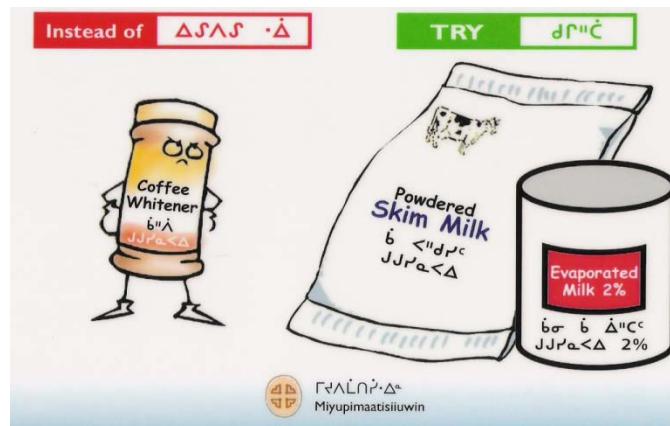
Singles low fat cheese



Milk comparison



Yoghurt/milk as a snack



Coffeemate

MEAT & ALTERNATES

Regular Hamburger meat	Extra Lean Hamburger meat
6 tsp. of fat	2 tsp. of fat

Hamburger meat

Instead of	ΔΣΑΣ · Δ̂	TRY	ᑃᑦᑲᑦ
<ul style="list-style-type: none"> Fried chicken Drumsticks Nuggets Chicken wings 	<ul style="list-style-type: none"> ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ 	<ul style="list-style-type: none"> Skinless chicken breast Roast chicken 	<ul style="list-style-type: none"> ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑃᑦᑲᑦ ᑲᑦᑲᑦ

Chicken comparison

Au lieu de	ESSAYEZ
Klik ou bœuf salé	le poisson dans l'eau
la poitrine de dinde	le rôti de porc
le jambon	

Klik or alternates (French version)

ΔΣΑΣ · Δ̂	ᑃᑦᑲᑦ
Pᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ	ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ
ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ	ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ

Klik or alternates (Cree version)

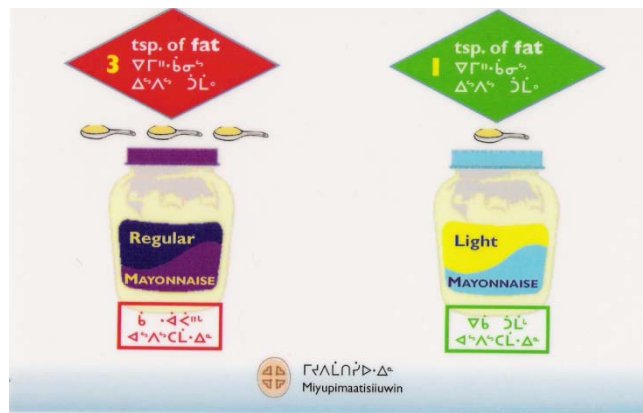
Instead of	ΔΣΑΣ · Δ̂	TRY	ᑃᑦᑲᑦ
<ul style="list-style-type: none"> Bologna Salami Hot dogs 	<ul style="list-style-type: none"> ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑃᑦᑲᑦ ᑲᑦᑲᑦ 	<ul style="list-style-type: none"> Ham Turkey breast Roast porc 	<ul style="list-style-type: none"> ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑃᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ

Cold cuts

FATS



Lard or oil



Mayonnaise comparison



Miracle Whip comparison

Community Announcement

To: Cree Nation of Chisasibi
Community members of Chisasibi

Re: Radio Announcement - *Food Labelling Project*

We would like to inform the community members of the following activities that will take place in their local stores: Northern Store, Chisasibi Co-op and General Store.

The *Food Labelling Project* is now being implemented here in the community of Chisasibi. So, follow the guide labels in your local grocery stores. They will teach you how to make healthier food choices.

Also, on Wednesday October 1st, 2003 from noon to 2 pm, everybody is welcome for a special food tasting at the Commercial Centre. Hop Lam Dao, the Health Chef will help you discover new ways to eat legumes and vegetables; and Catherine Godin, the nutritionist who created the *Food Labelling Project* will be here to answer any of your questions concerning foods. They both can help you plan healthier dishes that you can make yourself at your own home.

Don't forget to all come on Wednesday, October 1st, 2003 at noon (Commercial Centre - Chisasibi).

There is no charge for the above activities – It's free so come on – taste some good food that you can actually buy at your nearest community stores!

Serving size

All numbers in the table are calculated according to that given serving

This number tells you **how much calories** is in the food (based on the serving size)

Carbohydrate =

- ✓ starch
- ✓ fibre
- ✓ sugars

Nutrition facts

Per 125 mL (87 g)

Amount	% Daily value		
Calories 80			
Fat 0.5 g	1 %		
Saturated 0 g + Trans 0 g	0 %		
Cholesterol 0 mg			
Sodium 0 mg	0 %		
Carbohydrate 18 g	6 %		
Fibre 2 g	8 %		
Sugars 2 g	8 %		
Protein 3 g			
Vitamin A	2 %	Vitamin C	10 %
Calcium	0 %	Iron	2 %

AN EXAMPLE TO SHOW YOU HOW USEFUL NUTRITION FACTS ARE

Steps	Example
1. Look at the serving size	→ Per cracker or 35 g
2. Look at how much energy in each serving	→ 20 calories per cracker
3. Decide how many serving you will be eating (or ate)	→ 5 crackers
4. Calculate how many calories in what you will be eating (or ate)	→ 20 calories/cracker X 5 crackers = 100 calories



ALWAYS COMPARE THE PORTION YOU EAT WITH THE SERVING SIZE ON THE LABEL

IF YOU WANT TO COMPARE 2 PRODUCTS, FIRST CHECK IF THEIR SERVING SIZES ARE SIMILAR



FAT CLAIMS

Claims	It means the food contains:	Be aware of those tricks:
<ul style="list-style-type: none"> • Low in fat • Low fat • Light in fat • Lite in fat 	Not more than 3 g of fat per portion	Be sure to check the suggested portion to see if it compares to what you usually eat
<ul style="list-style-type: none"> • Fat free • Contains no fat • Very low fat • Free of fat • Ultra low fat 	Less than 0.5 g fat per portion	Does not mean calorie free
<ul style="list-style-type: none"> • Low in saturated fat 	Not more than 2 g of saturated fat per portion	Does not mean it is low in total fat
<ul style="list-style-type: none"> • Low-cholesterol • Low in cholesterol • Light in cholesterol • Lite in cholesterol 	Not more than 20 mg cholesterol per portion of 100 g and must also be low in saturated fat (see above definition)	Does not mean it is low in total fat
<ul style="list-style-type: none"> • Cholesterol-free • Free of cholesterol • No cholesterol 	Not more than 3 mg cholesterol per portion of 100 g and must also be low in saturated fat (see above definition)	Does not mean it is low in total fat For example, chips do not contain cholesterol but they are very high in fat
Ground meat and poultry		
<ul style="list-style-type: none"> • Regular • Medium lean • Lean • Extra lean 	Not more than 30% fat Not more than 23% fat Not more than 17% fat Not more than 10% fat	
Meat, fish and poultry		
<ul style="list-style-type: none"> • Lean • Extra lean 	Not more than 10 % fat Not more than 7.5 % fat	

Source: Canadian Food Inspection Agency (2002)

ENERGY (CALORIES) CLAIMS

Claims	It means the food contains:	Be aware of those tricks:
<ul style="list-style-type: none"> • Calorie-reduced 	<p>At least 50% less calories compared to the same food not calorie-reduced</p>	
<ul style="list-style-type: none"> • Low-calorie • Low in energy • Light in calories • Lite in calories • Light in energy • Lite in energy 	<p>Not more than 15 calories per portion</p>	<p>Be sure to check the suggested portion to see if it compares to what you usually eat</p>
<ul style="list-style-type: none"> • Calorie free 	<p>Not more than 1 calorie/100 g of food</p>	

Source: Canadian Food Inspection Agency (2002)

SUGAR CLAIMS

Claims	It means the food contains:	Be aware of those tricks:
<ul style="list-style-type: none"> • Low-sugar • Low in sugar • Light in sugar • Lite in sugar 	Not more than 2 g sugars per portion	Be sure to check the suggested portion to see if it compares to what you usually eat
<ul style="list-style-type: none"> • No sugar added • Unsweetened 	Means no sugars (e.g. sucrose, honey, molasses, fruit juice, fructose, glucose, etc.) are added to the food	No sugar added or unsweetened does not mean sugar-free . For example real fruit juice has no sugar added but still contains sugar naturally occurring from the fruits
<ul style="list-style-type: none"> • Sugar-free • Sugarless • No sugar • Sweet without sugar 	Not more than 0.25 g sugars per 100 g and not more than 1 calorie per 100 g	

Source: Canadian Food Inspection Agency (2002)

DIETARY FIBRE CLAIMS

Claims	It means the food contains:
• Source of dietary fibre	At least 2 g of dietary fibre per portion
• High source of dietary fibre	At least 4 g of dietary fibre per portion
• Very high source of dietary fibre	At least 6 g of dietary fibre per portion

Source: Canadian Food Inspection Agency (2002)

SODIUM (SALT) CLAIMS

Claims	It means the food contains:
<ul style="list-style-type: none"> • Low sodium • Low salt • Low in sodium • Low in salt • Light in sodium • Lite in sodium • Light in salt • Lite in salt 	<p>Less than or equal to 50% of the sodium that would be present if the food were not a low-sodium food;</p> <p>Less than or equal to 40 mg sodium/100 g</p>
<ul style="list-style-type: none"> • No salt added • Unsalted 	No salt/sodium have been added to the food
<ul style="list-style-type: none"> • Sodium-free • Salt-free 	Not more than 5 mg sodium per 100 g of food

Source: Canadian Food Inspection Agency (2002)

A decorative border of small, stylized spoons arranged in a rectangular frame around the central text. Each spoon is oriented with its handle pointing outwards and its bowl pointing inwards.

ALL THESE WORDS MEAN SUGAR

SUGAR

SUCROSE

GLUCOSE

DEXTROSE

LACTOSE

FRUCTOSE

MALTOSE

MOLASSES

CORN SYRUP

RICE SYRUP

GOLDEN SYRUP

MAPLE SYRUP

MALT SYRUP

FRUIT JUICE SWEETENER

INVERT SUGAR

MALTODEXTRIN

HONEY



ALL THESE WORDS MEAN **FAT**

FAT

LARD

SHORTENING

OIL

LECITHIN

BEEF TALLOW

BUTTER

MARGARINE

SALAD DRESSING

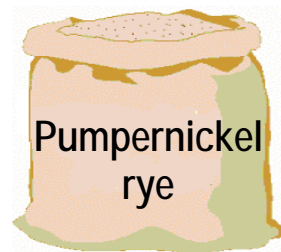
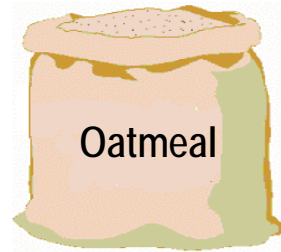
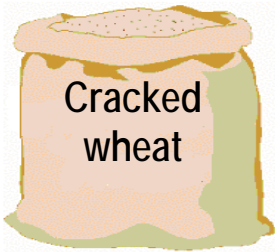
MAYONNAISE

MONOGLYCERIDES



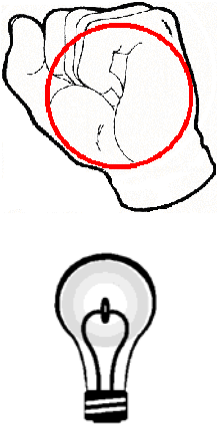
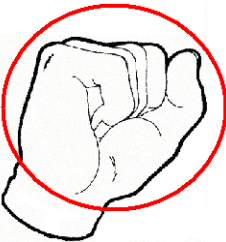

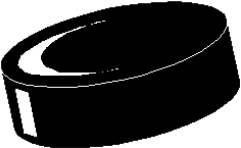
DIGLYCERIDES

HYDROGENATED VEGETABLE OIL














ALL THESE WORDS MEAN FIBRE




HOW TO QUICKLY MEASURE A PORTION?












A thumb-tip	A thumb or 4 dice	A small fist or A light bulb	A fist	Inside of woman's palm or A deck of cards	A hockey puck
					
=	=	=	=	=	=
1 teaspoon (1 portion of fat)	1 tablespoon (½ portion of cheese or 1 portion of peanut butter)	½ cup (a portion of vegetable)	1 cup (a portion of rice, noodles or salad)	3 ounces (a portion of meat, fish or poultry)	1 bagel

Adapted from: Healthy Bites, The National Institute of Nutrition, 2000.

Food items	Calories	Fat content	Sugar content
<p>Small bag of chips (70 g) or cheese sticks (75 g)</p> 	400	 8 teaspoons	 6 ½ teaspoons
<p>Large bag of chips (255 g) or cheese sticks (190 g)</p> 	1300	 23 teaspoons	 21 teaspoons
<p>10 small pretzels</p> 	230	 ½ teaspoon	 9 teaspoons
<p>3 cups oil-popped popcorn</p> 	160	 2 teaspoons	 3 ½ teaspoons
<p>2 rice cakes</p>		NO FAT	




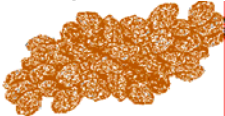









	70		3 teaspoons
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1 teaspoon of sugar = 5 g CHO

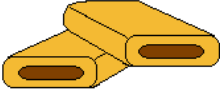





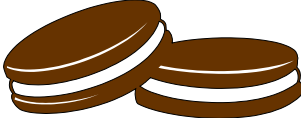





Dairy products	Calories	Fat content	Sugar content
175 g fruit yoghurt (1%) 	170	 $\frac{1}{2}$ teaspoon	 6 $\frac{1}{2}$ teaspoons
1 cup chocolate milk (2%) 	180	 1 teaspoon	 5 teaspoons
1 cup strawberry Grand Pré milk (2%) 	160	 1 teaspoon	 4 teaspoons
50 g LOW FAT Singles (7%) 	80	 1 teaspoon	NO SUGAR

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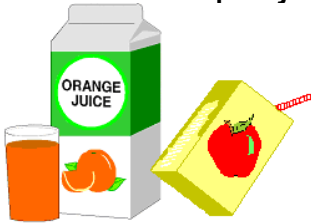







1 teaspoon of sugar = 5 g CHO

Nuts/fruits/vegetables	Calories	Fat content	Sugar content
<p>30 dry-roasted</p>  <p>peanuts</p>	180	 <p>3 teaspoons</p>	 <p>1 teaspoon</p>
<p>2 tablespoons raisins</p> 	50	NO FAT	 <p>3 teaspoons</p>
<p>1 medium banana</p> 	110	NO FAT	 <p>5 ½ teaspoons</p>
<p>1 medium orange</p> 	60	NO FAT	 <p>3 teaspoons</p>
<p>1 medium apple</p> 	80	NO FAT	 <p>4 teaspoons</p>
<p>10 Mini carrots</p> 	40	NO FAT	 <p>1 ½ teaspoon</p>

1 teaspoon of sugar = 5 g CHO

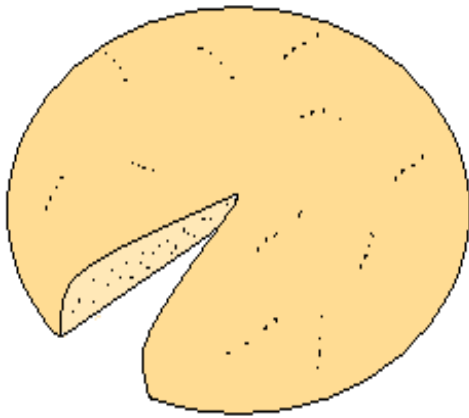
Cookies	Calories	Fat content	Sugar content
<p>2 Fig bars</p> 	95	 $\frac{1}{2}$ teaspoon	 4 teaspoons
<p>4 Social tea/3 Arrowroot</p> 	90	 $\frac{1}{2}$ teaspoon	 3 teaspoons
<p>2 Oreo</p> 	150	 $1 \frac{1}{2}$ teaspoons	 4 teaspoons
<p>2 Chocolate chips</p> 	130	 $1 \frac{1}{2}$ teaspoon	 $3 \frac{1}{2}$ teaspoons

1 teaspoon of sugar = 5 g CHO

Beverages	Calories	Fat content	Sugar content
 <p>Water</p>	0	NO FAT	NO SUGAR
 <p>1 cup of juice</p>	110	NO FAT	 <p>5 1/2 teaspoons</p>
 <p>1 cup of regular flavoured powdered drink</p>	100	NO FAT	 <p>5 1/2 teaspoons</p>
 <p>1 cup of regular iced tea</p>	150	NO FAT	 <p>7 1/2 teaspoons</p>
 <p>1 cup of regular soft drink</p>	100	NO FAT	 <p>5 teaspoons</p>








1 teaspoon of sugar = 5 g CHO

BANNOCK RECIPE



with



-  2 $\frac{1}{2}$ cups of white flour
-  2 $\frac{1}{2}$ cups of whole wheat flour
-  $\frac{1}{2}$ cup of oil
-  3 tablespoons of baking powder
-  $\frac{1}{2}$ cup of skim milk powder
-  1 cup of water
-  Bake at 350° F and enjoy!

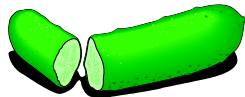
Makes at least 16 servings	PER SERVING	
	(based on 16 servings/bannock)	
	Calories	223
	Fat	7 g
	Protein	7 g
	Carbohydrate	33 g

DELICIOUS LOW FAT DIP

- * ½ cup (125 ml) low fat plain yogurt
- * 1 teaspoon (5 ml) prepared mustard
- * 1 tablespoon (15 ml) lemon juice (fresh or bottled)
- * Pepper to taste
- * 1 teaspoon (5 ml) of one of the following herbs:
tarragon, parsley, chives, or any of your preferred herbs



In a bowl mix mustard, lemon juice and pepper



Slowly incorporate yogurt and herbs



Serve it with your favourite veggies

Makes approximately 5 servings	PER SERVING	
	Calories	17
	Fat	0.4 g
	Protein	1.4 g
	Carbohydrate	2 g

Source: Anne Noël La diététique au quotidien (1986)



- * 1 lb (500 g) lean ground beef
- * 2 medium onions, chopped
- * 1 large clove garlic, minced
- * 1 cup (250 ml) each chopped celery and carrots
- * 1 cup (250 ml) chopped sweet green pepper (optional)
- * 1 can (28 oz or 796 ml) tomatoes, whole or crushed

- * 2 cans (19 oz or 540 ml) red kidney beans, drained and rinsed
- * 2 tbsp (30 ml) chilli powder
- * 1 tbsp (15 ml) lemon juice
- * 1 tsp (5 ml) cumin
- * $\frac{1}{4}$ tsp (1 ml) hot pepper flakes
- * 1 cup (250 ml) water (optional)



1. In a large non stick skillet or saucepan, cook beef over medium-high heat for about 5 minutes or until browned
2. Pour off any fat
3. Add onions, garlic, celery, carrots and green pepper (if using)
4. Cook for 3 to 5 minutes or until onions are tender
5. Add tomatoes, kidney beans, chilli powder, lemon juice, cumin and hot pepper flakes
6. Cover and simmer for 10 minutes or until vegetables are tender.
7. Add water if too thick

		PER SERVING	
Makes 6 servings	Calories		314
	Fat		9 g
	Protein		24 g
	Carbohydrate		35 g
	Fibre		11 g