

New Roads to Healthful Living: Results of Formative Research for a Food Store-Based Intervention Program to Improve Diet and Health in the White Mountain and San Carlos Apache Reservations



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July 20, 2002

Introduction

This report summarizes the main findings of the I &G Foundation-funded project, “Store-Based Environmental Intervention Program to Reduce Risk of Chronic Disease in the White Mountain and San Carlos Apache Reservations.” Significant accomplishments to date include:

1. Approval of the formative work and proposed store-centered intervention by the Health Authorities and Tribal Councils of the White Mountain and San Carlos Apache tribes.
2. Preparation of disclosure statements and approval of the project by the Johns Hopkins Committee on Human Research.
3. Development of field guides for formative data collection (Please see appendices for sample in-depth interview guide and consent form).
4. Training of three Apache community members in in-depth interviewing and other formative research techniques.
5. Collection of the majority of the formative data originally planned. (Table 1).
6. Completion of a detailed intervention strategy for testing in focus groups.

In addition to the formal tribal approvals described above, we have established collaborative relationships and broad-based support for the store based intervention from a variety of sources. These include: 1) the executive leadership of the Bashas supermarket chain, which owns the two major supermarkets on the reservations; 2) owner/managers of the independently owned convenience stores on the reservation; 3) supervisors of the tribally-owned convenience stores; and 4) other community leaders who exert broad influence in the communities. The level of support for the work we propose to do is very good, and at least partly reflects the fact that we have sought out their ideas and input for the work.

Table 1. Formative Data Collected to Date

Component of data collection	# to be completed by end of project	# completed to date
Store Owners, managers and staff of major stores	6	6
Owner-operators of small community stores	10	10
Customers of stores	15-20	22
Community and Tribal Leaders	10-12	13
Observations of food purchases in small stores	10	11
Focus groups (for testing interventions)	10	7

The majority of the data presented in this report was collected from September 2000 through March 2001. As can be seen in Table 1, the majority of the formative research originally planned has been conducted. The following sections present preliminary results of the formative research broken down by type of person interviewed.

Customers

All of the informants interviewed were Apache. Eleven of our informants were women, ranging in age from approximately twenty to sixty-five years. The other four informants are Apache men ranging from approximately thirty-eight to sixty years of age. The unemployment rate on the reservation is high and many family incomes are below federally established poverty guidelines. Many of our informants stated that they received some sort of government assistance such as food stamps, commodity food distributions and/or WIC vouchers.

Why do customers shop at particular stores?

On the reservation, our respondents reported two primary factors which influenced where they chose to shop: pricing and proximity. The majority of customers interviewed mentioned “budget” concerns as central to their decision making process.

“I try to look at the sales that are happening in the ads. The ads are what keeps us, the shopping going” (Apache mother of 3)

“We mostly go to Bashas’ because it’s down here and it’s closer and we don’t want to go half an hour or forty minutes up the hill to buy food and come back down. Plus because we don’t pay taxes (on the reservation), I mean it’s cheaper down here than up there.” (young Apache woman)

Other factors include the source of family income and types of subsidies received. For example, families who have at least one member employed by the White Mountain Apache tribe often make the trip to the outlying community of Cibecue because the tribally owned store there offers payroll deduction credit accounts to these employees. Many families also receive aid in the form of vouchers distributed by WIC (Women, Infants and Children). These vouchers allow them to purchase predetermined items such as milk, cheese, cereal and fruit juices at stores certified by the program to handle them. The small community stores do the majority of their business in snack and convenience items although exceptions to this, as stated by managers interviewed, are the elderly and other persons living close by who have no transportation to the major stores.

In the more remote community of Cibecue, the manager of the small Trading Co. stated that many of their customers can’t get into town (Showlow and Whiteriver are each about an hour’s drive away) unless they pay someone to take them. She presents the store as, “a service to these older people who can’t get out. They’ve always depended on this store for them.”

Why do customers purchase the foods they do in store?

As mentioned earlier, economics appears to be the prevalent concern of most shoppers interviewed. This sentiment illustrates that any planned intervention, to be successful, should also be cost effective to the customer.

When asked to describe how she shops, on 40 year old single mother said concisely, “I use lists and I usually look for the lowest price.”

Interviewed shoppers frequently stated that they stretch their limited resources by making lists of needed food items and adhering to that list. Some consumers said they plan meals for a week or more and make their lists accordingly. Other customers used different strategies. While most informants said that they look for sales in ads or specials in the stores, there was little mention of coupon use. An exception to this is the “Free Milk” coupons which are generated at the registers in Bashas. For each gallon purchased, the shopper receives one coupon. For five coupons, they receive one free gallon of milk.

Many families with young children receive WIC vouchers, and this works into their shopping strategies. Foods purchased using these vouchers must meet specific guidelines for nutritional value and participants receive a listing of appropriate choices. Here is a situation where cost restrictions do not apply, as mothers reportedly would use the WIC vouchers to acquire the more expensive brand names.

Some customers spoke about shopping with their children and the how their children influence some of their decisions. Most spoke about the children asking for treats and snack foods such as cookies and candies. Whether or not a parent gave in to these demands were more often than not influenced by current cash flow than on nutritional considerations. A few mentioned that their children who had participated in Pathways would point out the high fat and/or sugar content of some products and discourage their parents from buying them. This is a favorable indication that behaviors can be changed. Some of the intervention methods used during the Pathways project can be easily adapted to work within the store environment, reaching a greater number of the reservation population and reinforcing those lessons in the children.

Store Owner/Managers

Bashas, a chain store with corporate offices in Phoenix, operates one grocery store on the White Mountain Apache Reservation and one on the San Carlos Reservation. There is also a tribally owned grocery and variety store operating in the remote Cibecue on the west end of the White Mountain Apache Reservation. These constitute the “major” stores.

Most of the small community stores on the White Mountain Apache Reservation are under direct ownership of the tribe. Tribal members manage the majority of these stores. This has the potential to simplify the process of implementing changes and interventions. The White Mountain Apache tribal council has already drafted and passed a resolution in

support of the project. Their continued support for the project results in the cooperation of the individual managers who are employed by the tribe. On the other hand, most of the small stores on the San Carlos Apache Reservation are privately owned (by tribal members), and so change may be more difficult to legislate.

How are decisions made about stocking foods in the stores?

Store managers define “successful” foods primarily in terms of sales and profit. Most responses to this question were quite brief and concise. “If it moves,” “if it sells,” “if it continues to work,” were often heard answers. Foods that sell well are reordered. The stores may try new foods at the request of customers or at the prompting of the distributor. Bashas, the major store operating on both the White Mountain and San Carlos Apache Reservations regularly receives updated shelf labels from which they may choose new foods or replacement foods for discontinued items. New foods are usually ordered in a small amount on a trial basis. These same stores must receive approval from their corporate office to stock foods not on their existing “approved” list. There are also several “vendors” who maintain products in both the major and small stores. These include Coca-Cola and Pepsi Bottling companies, Holsum breads, Frito-Lay, Hostess Bakery and a few local companies that provide items such as microwavable sandwiches and jerky. These vendors make their own decisions on what and how much to stock.

What is the level of store management commitment to stocking healthy foods?

Both small and large store managers expressed enthusiasm for promoting an awareness of and accessibility to healthy foods. One major store manager, citing the high prevalence of diabetes and heart disease on the reservation, expressed a long standing wish to reorganize the stock in such a way that customers could more easily identify those foods which would help them maintain their health. He voiced his own hopes that, “maybe we can work together and somehow we can have that available to them.”

The manager of the Bashas store in Whiteriver was more eloquent with his sentiments. When asked at the end of the interview what else he thought was important for me to know, he referred to a section of the project proposal where it addresses the need to “change behaviors.” He stressed the importance of that goal based on what he sees as a tendency of the people to revert to old habits. He said,

“What you see on a daily basis, twenty-four ounce Cokes, you know, all of the little things that you know are just killing these people. If there’s any likelihood to change,

because these people are dying out there and they're doing it. They're putting it in their mouths. It's just terrible to see. So I would be happy to work with you on this and try to work closely with you. Anything you need, just all you do is ask."

How can local stores be encouraged to stock lower fat alternatives?

Most of the store managers we spoke to expressed concern for the health of people living on the reservation and a willingness to help promote healthier foods. However, each store manager interviewed also noted that any interventions must not effect the main goal of the store, which is profit. Store managers are willing to try new lower fat products but sustaining such foods in the inventory is directly related to successful promotion and sales.

One important factor in terms of stocking decisions by store managers, particularly in the smaller convenience stores, lies in their relationship with their distributors. Distributors will frequently come into the stores and directly restock items that have run low on the shelves – then leave a tally of what they have done. Distributors frequently have a large catalogue of food items, many of which the small store owners may be unaware. This means that we will need to work with distributors (such as General Distributors Incorporated, the main supplier of the White Mountain Apache convenience stores), to encourage them to offer and restock lower fat or otherwise healthier alternative on store shelves.

What store-centered interventions will work?

Table 2 summarizes information from our formative work in terms of different components of a potential store-based intervention. Much of the information in this table is drawn from the experiences of local store owners and managers themselves, in terms of what has worked (or not worked) in the past. Test materials are being developed using the most promising of these approaches, and will be tested in focus groups.

Table 2. Pros and cons of different store intervention strategies

Possible intervention or promotion component	Overall pros	Overall cons	Level of store management enthusiasm
Taste tests	Previously tested and successful method: People like to try free products: Effective at demonstrating that	Requires preparation, staff training, staff time and space, sanitary supplies, ingredients	High. This is something they have tried before and are comfortable with it.

Possible intervention or promotion component	Overall pros	Overall cons	Level of store management enthusiasm
	healthy foods can taste good. Stores willing to contribute space, ingredients in some cases.	and other store resources: may be hard to sustain.	
Coupons	Bashas has a computerized system in place, which may be able to generate coupons for low fat alternatives to purchased foods. The store director at Bashas believes it has been done at other stores and can be accomplished.	Use of newspaper-type coupons among interviewed customers is generally low. Use of store-generated computers is more common.	Medium. Setting up such coupons in the system requires setup through the corporate office
Posters	Attractive visually. Stores already use this form of promotion; reaches a broad audience; affordable; some posters already available from manufacturers.	Need to be culturally appropriate.	High. Both large and small storeowners suggested this as an effective means of advertising, and promotion of specific foods.
Healthy product labeling	Permits instant visual identification of a healthy food product. Labels may be in both Apache and English, enhancing local appeal and interest.	Labor intensive to put label on products or on shelves. Troublesome when there is a great deal of restocking to be done.	Medium. Some managers were enthusiastic, while others questioned the effectiveness.
Radio Announcements	The tribe owns the local radio station and public service announcements are free. Widespread dissemination.	Culturally appropriate scripts need to be created.	High. Can reach a large number of people at low cost.
Flyers/recipes	There are existing materials readily available from tribal and government programs operating on the reservation. (WIC, Commodity Food	Cost of materials. To be effective, recipe ingredients must be available and affordable.	High. Flyers are a commonly used means of disseminating information in this setting.

Possible intervention or promotion component	Overall pros	Overall cons	Level of store management enthusiasm
	Distribution, Diabetes Project)		

In summary, there are a wide variety of potentially effective media for reaching store customers and encouraging them to buy selected foods. There is also considerable experience in the use of many of these methods among store, which should ease implementation.

What specific foods should be incorporated into the intervention?

Behavior-change interventions such as those proposed here require specific and focused messages. Evidence from numerous studies indicate that overly general messages are ineffective at changing behavior, largely because people do not understand how to put them into action (eg. General: “Get more exercise” vs. Specific: “Walk the stairs at work instead of using the elevator”). In the store intervention program to be developed here, we will promote specific foods, using multiple forms of reinforcement and incentives that will encourage and sustain behavior change. Table 3 presents a summary of specific foods which may be incorporated into the store interventions. These foods and components of the intervention using these foods will be tested in focus groups.

Table 3. Specific foods for promotion in the store intervention program

Food and Intervention Environment	<u>Aim</u>	<u>Possible Intervention</u>	<u>Specific Message(s)</u>
Milk (Major stores only)	To promote the use of low fat varieties (1%, skim)	Blind taste tests, display of fat jars from Pathways or poster depiction of it.	Low fat (1%) and skim milk contains all the nutrients without unhealthy excess fat.
Breakfast Cereals (Major stores only)	To promote low fat, low sugar varieties.	An area where the use of shelf labels may be useful in helping shoppers make healthier choices. Possible target area for label reading. Could be brands already approved by WIC so vouchers would be valid means of purchase.	A well-chosen breakfast cereal can provide a convenient and healthy morning meal. Sugary cereals give quick energy but complex carbohydrate cereals give sustained energy, have more fiber and may help prevent diabetes.
Butter/ Margarine (Major stores only)	To promote use of low fat spray toppings as alternative	Give samples of the alternative food on tortillas since buttering fresh tortillas is a common practice.	Flavor without the fat
John Morrell Lard (Major stores only)	To promote cooking methods using less saturated fats.	In store cooking demo and sampling using cooking sprays or Canola oil instead of shortening or lard.	Get the lard out!
Hamburger (Major stores only)	To promote removal of fat during the cooking process.	Demonstrations of the rinse and drain method. Should include a finished sample used in a locally prominent food such as spaghetti or low fat gravy.	Fat is an unhealthy by-product of cooked hamburger and should be removed prior to consumption.
Spam (Small/major stores)	To promote lower fat alternatives. (Is often cooked with potatoes and eaten for breakfast)	Sampling along with visual aides illustrating the fat content in regular Spam. Promotions of Spam Lite and other alternatives.	Try Spam lite.

Food and Intervention Environment	<u>Aim</u>	<u>Possible Intervention</u>	<u>Specific Message(s)</u>
High sugar content fruit drinks. (Major stores only)	To promote consumption of more “real” fruit juice	Another target area for label reading. Educational display showing how ingredients are listed in order of prominence so shoppers can differentiate between “juice” and juice flavored drinks. 100% juice also a WIC item.	How much “juice” is in the “juice”? While fruit juices are usually costlier, they are a good source of some vitamins. Drink water, a healthy alternative.
Cheese (Major stores only)	To promote consumption of low fat and reduced fat cheese products.	An area where we need to address availability of lower fat products. Design a graphic display illustrating the difference in fat content between chosen products. WIC vouchers may currently be used to purchase reduced fat and string cheeses.	Low fat and reduced fat cheese can provide much needed calcium without adding excess fat to the diet.
Soft Drinks (Small/major stores)	To discourage the consumption of high sugar content “Regular” soft drinks. Promote “Diet” soft drinks and water.	Blind taste comparisons of “regular Vs diet.” Visual displays of actual sugar content of certain products, possibly using clear empty product containers filled with the appropriate amount of white sugar as contained in the product	Regular soft drinks are very high in sugar. Diet pop is a better alternative, water is best.
Bologna (Small/major stores)	To promote low fat varieties	Samples or blind taste tests of lean or alternative (chicken, turkey) bologna.	Called “Apache Round Steak” locally. Lean varieties are still less expensive than many other types of lunchmeat.

Food and Intervention Environment	<u>Aim</u>	<u>Possible Intervention</u>	<u>Specific Message(s)</u>
Frozen Desserts (Small/major stores)	To promote low fat alternatives such as frozen yogurt, fruit bars and Popsicles	Currently alternative products are very limited in availability. This needs to be addressed with management. Frozen yogurts and reduced fat ice creams don't "travel" well so even buying them off the reservation is not currently workable for many consumers. Free samples of alternative products. Maybe small yogurt and fresh fruit cups.	We don't have to give up dessert but we can make healthier choices
Canned Chili (Small/major stores)	Promote low fat versions	Another target area for label reading, focusing on fat content. Sample tasting of lower fat alternatives such as turkey or meatless chili.	Looking at very specific areas of the label can help us choose healthier versions of products we use regularly.
Hamburger Gravy	Promote a low fat version of this local staple.	Hand out of recipe combined with samples. Teach the "drain and rinse" cooking method.	Low fat food on a budget.
Lunchables (Major stores only)	To promote lower fat alternative snacks	Comparison display. Contents of one sample Lunchable on one side, a similar snack assembled using lower fat items on the other. Comparison should also be able to show cost effectiveness of alternatives	Save money and reduce fat by building your own snack-packs.

The two major supermarkets on the reservations have a computerized system for tracking sales of individual food items. The managers have offered to provide us with the information on weekly sales of all the key foods that we choose to focus on in our intervention. Initially, this information will be used to help us select specific high volume foods for intervention, and later this information will provide us with an evaluation of the effectiveness of our intervention in changing purchasing patterns.

Community Leaders

Thirteen community leaders were interviewed. Of these, about half were men and half were women. Three of the men are presidents of their communities. Members of their community elected them to this position. Each of the men are married with families. Two of the men are also very active in the church. One man is a preacher and was formerly the Tribal Chairman. He has a very large congregation and is very influential in his community as well as the rest of the reservation. He and his church often have camp meetings or rivals, which is attended by a lot of people from both the White Mountain and San Carlos Apache Reservations. They have these camp meetings frequently throughout the summer.

All of the community leaders interviewed expressed the desire to provide their assistance at the community level. The three women interviewed each have large families, and have a lot of influence not only in their extended families but also in the communities in which they reside. The Apaches traditionally have a matriarchal system and so the women do have a lot influence in their families and community. One of these women is formerly a tribal council member and was community president. She is still recognized as the unofficial community leader.

One community leader interviewed is a current member of the tribal council. She is also on several other boards and has a lot of influence in the community and reservation wide. She made the following observations about the stores on the reservation,

"...those business people, I think need to be encouraged or reeducated, that what they are selling is not all that great for our people's health. You know if nobody say no then they will continue."

On the other hand, she also observed that this is not only the fault of the purveyors of food,

"But our people are so into eating those things, they are high saleable items. We cater to what our people love to eat, and that is what makes money, but at the same time we are hurting our own people. It's just like the liquor we sell on the reservation. It generates revenues, but its taking lives away while we are making money."

Each of the community leaders recognized the health problems in their community and the cost to families and the sad fact that there is a dialysis center on the reservation.

The community leaders interviewed provided ideas and suggestions as to how they could help, for example: hold community meetings, work with the convenience stores in

their community, and helping to educate those who provide these foods as well as the business owners to provide healthy alternatives. Each community leader expressed sadness over the unhealthy state of people here. These individuals are recognized leaders not just in their community but reservation wide and people do listen to them and seek them out for advice. They are powerful allies in any community-based effort to change behavior. With their support we may succeed, without their support we will likely fail in the long run.

Feedback on Intervention Ideas from focus groups

Following the initial stages of formative research, we developed trial intervention materials, and presented some of the materials to focus groups to get feedback and further ideas. Table 4 summarizes the format and main outcomes of the seven focus groups that were held.

Table 4. Progress of presentations and modification of ideas

Focus Group	Type of Participants	Main outcomes of the focus group
Focus Group #1	Customers; Apache women, approximately 30-35 years of age, single.	Based on this group; the themes were reorganized in order of preference. The logos were also renumbered with #3 becoming #1 based on preference. The “Eat right, stay strong, live long!” theme was also added to the logo. The poster designs were modified to incorporate suggestions of the participants. The idea of brief public service announcements was added to the list of radio options.
Focus group #2	Customers; Apache men, approximately 25-30 years of age married with children.	Based on this group; the themes were again reorganized to show overall preference with #1 remaining in its place. The logos remained in the same order as this group indicated. A lot of positive feedback.
Focus Group #3	Customers; Apache men, 55-65 years of age, with children/grand-children	Based on this group; added poster contest and fun walk to kickoff event. Themes were adjusted to show overall preferences of groups. Added “You are what you eat!” Developed and added a new logo which combined the traditional hoop with the modern food pyramid. Changed the order of wording around the hoop based on their suggestion of appropriateness. Modified shelf label #5 to show only fat (excluded sodium) Added “other activities” slide suggesting visual aids and health information in conjunction with taste tests. Added taste test of diet soda. Eliminates taste test of frozen yogurt parfait (promoting sweets) Added logo to posters

Focus Group	Type of Participants	Main outcomes of the focus group
Focus Group #4	Bashas Management; Mixed ethnic and gender group. General Manager and Departmental Managers	Based on this group; Added health screenings (blood pressure, glucose level, % body fat) to “other activities” of taste test events. Combined last to themes into one. Order of themes maintained, #1 consistent favorite of groups. New logo #3 moved into second position. Shelf label #5 questionable. Staff felt it would be too “labor intensive” to have a different label for so many products. Added two new posters showing logo and shelf labels with “Look for” captioning.
Focus Group #5	Customers; Apache women, 40-45 years of age, married with children.	Based on this group; We reworded “You can save money theme.” Added a new logo incorporating a wickiup into the design. Shelf label #5 dropped after being pointed out as questionable or too complex by groups. Feedback on taste tests positive. Suggestion noted to keep recipes simple (six ingredients or less) Added logo key chains to list of incentives.
Focus Group #6	Customers; Apache men, 20-30 years of age, single.	Based on the group; The #1 and #2 logos traded position. This group preferred the combination of the pyramid with the hoop. The “Eat right, stay strong theme,” remained the favorite as it has consistently throughout the groups. Shelf labels were not modified although #2 was preferred over #1. Reactions to taste tests were positive with the comment that our staff at these needed to be well trained in responding to customer questions. They stressed the importance of keeping the recipes simple and suggested asking the communities to contribute recipes for analysis and possible use. No changes suggested for posters. Reaction to radio and community forums was good and some specific recommendations were made for the radio programs.
Focus Group #7	Small store managers, tribally owned community stores.	Based on the group; Add smaller “Kickoff Events” to be held at the smaller community stores as program begins. The number one theme remains in place, still the overall preference among the groups. The group was split over the preference of logos choosing #1 and #2. Shelf label #2 preferred over #1, these two labels state the same message in different terms. #1 label dropped. Reaction to taste tests positive. The “sugar baggy” visual was picked as a preference for the soft drink test. The participants preferred the recipe cards with the picture on it. Added a flyer announcing upcoming events in the store. Poster #3 and #4 moved to #1 and #2. Bumper stickers added to list off incentives.

Summary of Intervention Idea Changes

This section of the report summarizes the main outcomes of the piloting of early draft of the intervention materials.

Key Messages/Themes

Every group to date has picked the first theme, “Eat right, stay strong, live long!” as its first choice. This will more than likely remain the main theme. Secondary preferences have varied between groups. Suggestions have been made that the other themes should be used as “sub-themes” to reinforce specific promotions. This has been tested on the “Logo poster” and well received.

Logos

Through the first few tests, the logo of preference was the hoop and burden basket. When the hoop and food pyramid design was added, preference between the two has been split. The first design of the burden basket, with fruit and vegetables seems to be preferred over the new design incorporating “modern” products. This design needs to be refined and more testing done to establish a solid preference.

Shelf labels

Reaction to the shelf labels has been positive with few changes suggested. The color has remained the same and the store managers have approved of the size and placement idea. A more complex and product specific label, using visual displays of fat/sugar content has been dropped after comments that it was “too confusing” and “too labor intensive” to apply. A shelf label reading “This is a healthy choice for your body” with a sub caption explaining its healthy characteristics has been chosen over a simpler version, “Healthy food choice.” Participants stated that they liked knowing why something was a good choice.

Taste Tests

Sample taste tests have met with overall approval with suggestions made as to adding visuals and seeking the cooperation of other agencies to conduct in store health screenings at the same time. Participants voiced the opinion that it is of importance not only to show someone how to eat healthy but why it benefits us. Visuals showing what excess fat buildup in arteries looks like and demonstrations showing “how much” a gram is were suggested.

Small store managers stressed that products need to be from what they have available and supplies for the event should be purchased from the store. Large store

managers have expressed much enthusiasm for these events, and have offered to provide food needed for cooking demonstrations. Comments were also made about the need to schedule these events around tribal paydays, when the stores are busiest. The general manager of Whiteriver Bashas stated, "I think it's a wonderful program and I'm excited to get it kicked off."

Recipes

The original recipes were done on full size (8.5"x11") fliers. Comments from participants initiated a design change to smaller (3"x5") card stock. A few have suggested having the cards laminated to protect from spills and offering a free card file at the kickoff event to encourage customers to collect them throughout the intervention program. Other comments repeated by individual participants were to keep the recipes simple, that ingredients needed to be locally available and that we should ask for recipes from the community to be analyzed for nutrient values and incorporated into the program. Another suggestion was that nutrient information specific to the control of diabetes.

Flyers/Coupons

Participants have stressed that flyers should be bright in color to attract attention. Reaction to product specific flyers pointing out specific areas of food labels have been overall positive with the comment made that, "if you want people to make a long term change, they need to know what to look for." Store personnel have asked specifically for flyers that announce upcoming events at their stores to attract customers. When queried as to how long reduced/subsidized prices would need to be in effect, there was a general consensus of two weeks to one month to allow people to try the product more than once. As with taste tests, store staff thought that reduced/subsidized prices should go into effect coinciding with tribal paydays. Small store managers pointed out that all coupons needed to be approved by their distributor.

Posters

Posters have evolved considerably during the pretesting. Comments and suggestions about the coloring and appearance have been incorporated into the current designs. Both large and small store management have encouraged the use of posters which "advertise" what to look for in their stores such as the shelf labels, logos and to

announce upcoming events. Store personnel also agree the posters should be at least “standard” size (24”x36”).

Radio

Again, overall support has been enthusiastic and most comments have been suggestions for broadening the use of the form. There is mixed feedback on the appropriate length of the programs ranging from fifteen minutes to one hour. It has been suggested that we work with the Tribal Chairman, Vice Chairman and council members to have them include a brief message of support in their weekly report since these reports receive the attention of a broad range of tribal members. This is very feasible, as we have already received the endorsement of the tribal council for the project.

Community Meetings

Most participants like the idea of presenting the program at the community meetings and have emphasized the importance of the support of tribal leaders for the project.

Conclusions

The formative research conducted to date provides a solid foundation on which to plan the Apache Healthy Stores project interventions. We have gained a great deal of insight into what types of approaches are likely to be effective. In addition, we have found a lot of interest and support for such a program from store managers, community leaders and community members. Now that the project has funding from the USDA, we will proceed to further develop, pretest and finalize materials and the overall approach of the intervention. We are grateful to all participants and colleagues for their support and look forward to a successful project.

Store Based Intervention

Interview Tracking List

Revised 01/02/01

Informant	Interviewed	Expanded	Filed *	INT.
Major stores				
Bashas Manager (Whiteriver)	11/09/00	11/28/00	11/29/00	SDK
Bashas Asst. Manager	10/25/00	11/07/00	11/07/00	SDK
Bashas Staff #1 (night shift supervisor)	11/21/00	11/30/00	11/30/00	SDK
Bashas Staff #2 (Deli manager)	11/21/00	12/18/00	12/18/00	SDK
Cibecue Commercial Center Manager	10/04/00	10/15/00	10/15/00	SDK
<u>Bashas Manager (San Carlos)</u>	11/27/00	11/28/00	11/30/00	SDK
<u>Bashas Staff (San Carlos)</u>	11/27/00	11/29/00	11/30/00	SDK
<u>Small Stores</u>				
H-Market Manager	09/27/00	10/02/00	10/02/00	SDK
Cibecue Trading Co.	10/04/00	10/24/00	10/24/00	SDK
Apache Service Manager	09/19/00	09/20/00	09/24/00	SDK
Canyon Day Store Manager	10/25/00	11/16/00	11/16/00	SDK
Cedar Creek Store Manager	09/07/00	09/07/00	09/08/00	SDK
Hondah Convenience Store Manager	09/28/00	10/04/00	10/04/00	SDK
McNary Community Store Manager	11/16/00	11/20/00	11/20/00	SDK
Seven Mile Community Store	09/20/00	09/24/00	09/24/00	SDK
<u>Nolines Country Store (San Carlos)</u>	11/27/00	11/29/00	11/29/00	SDK
<u>R & S Store (Bylas)</u>				
<u>Community Leaders</u>				
#1 IDI Oct 11 2000 SK2 (WMAT)	10/11/00	10/19/00	10/19/00	SDK
#2 IDI Oct 11 2000 NQ3 (WMAT)	10/11/00	10/23/00	10/23/00	SDK
#3 IDI Oct 11 2000 CH3 (WMAT)	10/11/00	11/02/00	11/02/00	SDK
#4 IDI Oct 11 2000 RH3 (WMAT)	10/11/00	10/11/00	10/19/00	SDK
#5 IDI Oct 19 2000 RH4 (WMAT)	10/19/00	10/23/00	10/23/00	SDK
#6 IDI Oct 25 2000 BE4 (WMAT)	10/25/00	10/27/00	11/30/00	SDK
#7 IDI Oct 26 2000 RH6 (WMAT)	10/26/00	10/30/00	10/30/00	SDK
#8 IDI Oct 27 2000 RH7 (WMAT)	10/27/00	11/02/00	11/02/00	SDK
#9 IDI Oct 30 2000 NQ6 (WMAT)	10/30/00	10/30/00	10/30/00	SDK
#10 IDI Oct 27 2000 BE5 (WMAT)	10/27/00	10/30/00	11/30/00	SDK
#11 IDI Nov 27 2000 SK3 (SCAT)	11/27/00	11/29/00	11/29/00	SDK
#12 IDI Dec 04 2000 SK4 (SCAT)	12/04/00	12/07/00	12/07/00	SDK
#13 IDI Dec 11 2000 SK7 (SCAT)	12/11/00	01/02/01	01/02/01	SDK

* Hard copy placed in file.

Store Based Intervention
Interview Tracking List

Families/Customers	Interview	Expanded	Filed *	INT
#1 IDI Oct 09 2000 RH1 (WMAT)	10/09/00	10/09/00	10/09/00	SDK
#2 IDI Oct 09 2000 CH1 (WMAT)	10/09/00	10/09/00	10/09/00	SDK
#3 IDI Oct 09 2000 NQ1 (WMAT)	10/09/00	10/09/00	10/09/00	SDK
#4 IDI Oct 09 2000 CG1 (WMAT)	10/09/00	10/09/00	10/09/00	SDK
#5 IDI Oct 09 2000 SK1 (WMAT)	10/09/00	10/10/00	10/10/00	SDK
#6 IDI Oct 09 2000 BE1 (WMAT)	10/09/00	10/10/00	10/20/00	SDK
#7 IDI Oct 10 2000 CH2 (WMAT)	10/10/00	10/10/00	10/10/00	SDK
#8 IDI Oct 10 2000 CG2 (WMAT)	10/10/00	10/10/00	10/10/00	SDK
#9 IDI Oct 10 2000 NQ2 (WMAT)	10/10/00	10/11/00	10/11/00	SDK
#10 IDI Oct 10 2000 RH2 (WMAT)	10/10/00	10/10/00	10/11/00	SDK
#11 IDI Oct 10 2000 BE2 (WMAT)	10/10/00	10/11/00	10/19/00	SDK
#12 IDI Oct 11 2000 BE3 (WMAT)	10/11/00	10/19/00	10/19/00	SDK
#13 IDI Oct 24 2000 NQ4 (WMAT)	10/24/00	10/25/00	10/25/00	SDK
#14 IDI Oct 24 2000 RH5 (WMAT)	10/24/00	10/26/00	10/26/00	SDK
#15 IDI Oct 25 2000 NQ5 (WMAT)	10/25/00	10/26/00	10/26/00	SDK
#16 IDI Nov 27 2000 RH8 (SCAT)	11/27/00	11/29/00	11/30/00	SDK
#17 IDI Nov 27 2000 RH9 (SCAT)	11/27/00	11/30/00	11/30/00	SDK
#18 IDI Dec 04 2000 SK5 (SCAT)	12/04/00	12/18/00	12/18/00	SDK
#19 IDI Dec 04 2000 SK6 (SCAT)	12/04/00	12/27/00	12/27/00	SDK
#20 IDI Dec 04 2000 RH13 (SCAT)	12/04/00	12/12/00	12/12/00	SDK
#21 IDI Dec 04 2000 RH14 (SCAT)	12/04/00	12/07/00	12/07/00	SDK
#22 IDI Dec 04 2000 RH15 (SCAT)	12/04/00	12/07/00	12/07/00	SDK
Store Observations				
Canyon Day Store (Grocery)	11/06/00			
Canyon Day Store Deli	11/06/00			
Seven Mile Store	11/07/00			
H-Market	11/08/00			
Hondah Store	11/08/00			
Cedar Creek Store	11/13/00			
Cibecue Trading Co.	11/14/00			
Cibecue Commercial Center	11/14/00			
Carrizo Station	11/15/00			
McNary Store	11/16/00			
R & S Store (Bylas)	12/11/00			

* Hard copy placed in file.

Appendix

IN-DEPTH INTERVIEW FIELD GUIDE #4: FAMILIES/CUSTOMERS

(DRAFT: October 10, 2000)

SAMPLE: 15-20 people from different families who generally do the food purchasing for their household. Sample should include both urban and remote households.

Must use "Tell me about..." 3 times. Take notes.

1. Think back over the last week, beginning with (name a day a week prior to the day of the interview) until today. Tell me about all the places where you have bought food.

2. For each place food was purchased:
 - 2a Tell me what happened when you went to _____ (name of store)? From the time you arrived until the time you left. (probe on the first thing they did, the second...)

 - 2b. Who went to the store?

 - 2c. Tell me about the kinds of foods that you bought at (name of store)

 - 2d. Tell me about how you decided what foods you would buy?

 - 2e. About how much did you spend? How did you pay for it? (WIC, food stamps, coupons)

3. How would you choose between two different brands of similar items? (for example, milk, bread)

4. When would you go to (store A) as opposed to (store B)? (Do for all stores)

5. Tell me about how you get ready to go buy food. (lists, coupons, per meal)

6. Tell me all the different ways you can think of that someone can save on their grocery bill?

7. What else do you think it would be important for me to know about how you buy your food?
8. What are all the different kinds of healthy foods you can think of? (probe for a complete list)
9. What makes these foods healthy?

10. (If appropriate) You mentioned that you purchased (name of food) last week. (I would like to do this on 3-4 key classes of foods, including canned meat, ...)
 - 10a. What would get you to buy a lower fat version of that food?
 - 10b. What if the price was (name a price 20% less than that of the real food)?
 - 10c. What if the price was (name a price 20% more than that of the real food)?
 - 10d. What would be some of your concerns about trying (name of lower fat food)?
 - 10e. What would get you to buy a (name of alternate) as an alternate for that food?
 - 10f. What if the (alternate's name) price was (name a price 20% less than that of the real food)?
 - 10g. What if the (alternate's name) price was (name a price 20% more than that of the real food)?
 - 10h. What would be some of your concerns about trying (name of alternate?)

Appendix

DISCLOSURE STATEMENT

The Johns Hopkins University
School of Hygiene and Public Health

Title of Research Project

STORE-BASED ENVIRONMENTAL INTERVENTION PROGRAM TO REDUCE RISK OF
CHRONIC DISEASE ON THE WHITE MOUNTAIN AND SAN CARLOS APACHE
RESERVATIONS

Formative Research Guide 4 (Families/Customers)

Instructions

This disclosure statement should be read to your informant before beginning data collection. If your informant indicates that he or she understands the disclosure information and agrees to proceed, data collection may be undertaken. A copy of this statement, signed by the staff person, should be given to the informant.

Explanation of Research Project:

Hello, my name is _____, and I am working on a health project being conducted by the Johns Hopkins University in Baltimore, Maryland. We are trying to understand how best to prevent some of the common health problems on the White Mountain and San Carlos Apache reservations, like heart disease, diabetes and obesity. With the information we gather here on your reservation and on other reservations, we will be developing some programs in local stores that will work to prevent these diseases.

You have been chosen to participate in this study because you are a customer here at (store name) and I thought you might be interested in talking with me. We would like to talk to you about how you decide which foods to buy in the store and the sorts of things that influence your decisions.

If you agree to participate in this study, we will do one interview with you on a date and time that is convenient for you. The interview will take about 45 minutes to an hour. We have tried our best to exclude any sensitive questions/issues from this discussion. However, if you feel that any of our questions are too sensitive, please do not hesitate to inform us, and we can either move to the next question or discontinue the discussion.

Your participation is voluntary and if for any reason you wish to withdraw from the study, you may do so. You do not have to answer questions that may bother you. We will be taking notes during the interview, but this information will be kept confidential. Do you have any questions?

Your name will not be mentioned in any reports we prepare. There are no risks associated with participation in this project. You will receive no direct benefit for participating in the interview. The information we collect will be used to develop and test a community-store based health education project that should help to improve the diet and thereby reduce the risk of diet-related chronic diseases (diabetes, heart disease, obesity)

on the White Mountain and San Carlos Apache reservations. Will you agree to participate?

Do you have any questions? If you do not wish to participate in this study, please feel free to say so. If you have any additional questions about your participation in this study and would like to speak with someone about this project, please feel free to contact Becky Ethelbah in Whiteriver (520) 338-4800 or Dr. Joel Gittelsohn, Principal Investigator (410) 955-3927

Thank you for your time and patience.

Signature of Interviewer _____ Date _____