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## A qualitative study to explore Prospect theory and message framing and diet and cancer prevention-related issues among African American adolescents

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### Abstract

**Aims**—To develop and test cancer prevention messages based on Prospect theory on motivation to improve dietary intake in African American adolescents, and to explore other salient factors that may inform dietary intervention design and implementation in this population.

**Methods**—Semi-structured in-person qualitative interviews were conducted with 13 African-American male and female adolescents, 12-16 years, in North Carolina. Prospect theory and message framing were used to guide the design of the four sets of diet-related messages related to cancer prevention: short-term gain-, long-term gain-, short-term loss-, and long-term loss-framed messages. Data were also collected on demographic, behavioral, and psychological factors; usual health behaviors; and preferences for intervention delivery.

**Results**—The majority of respondents found the gain-framed, short-term messages most salient for both fruits/vegetables (8 (61.5%)), and fat consumption (7 (53.8%)). For fat consumption only, 2

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(15.4%) found the loss-framed, short-term messages pertinent; none found the loss-framed, long-term messages relevant for either dietary variable. All indicated interest in participating in a dietary intervention/education program; most preferred the Internet as a channel for intervention delivery. Participants expressed diverse views regarding knowledge, attitudes, and beliefs regarding healthy eating.

**Conclusions**—Researchers conducting dietary interventions and education initiatives and medical professionals who counsel African American adolescents should consider using Prospect Theory as a theoretical framework, should focus on gain-framed short-term messages regarding cancer prevention, and should employ the Internet for data collection and intervention and information delivery.

### Keywords

adolescents; African Americans; cancer prevention; diet; interventions; message framing; nutrition; Prospect theory

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## Introduction

It is generally accepted that diet and nutrition contribute appreciably to the burden of chronic and preventable diseases; specifically, healthy diets, such as high consumption of fruits and vegetables and lower fat intake are associated with reduced risk for obesity, cardiovascular disease, diabetes, and many cancers.<sup>1-7</sup> Adolescence represents a period during which youth gain control over their food choices.<sup>1,8-11</sup> Moreover, eating patterns established in adolescence track into adulthood and can impact future risk for chronic diseases.<sup>8-15</sup> Recent research evidence suggests that the prevalence of chronic disease risk factors, such as poor diets and physical inactivity, is increasing dramatically in adolescents.<sup>9,12-16</sup> The rates of these unhealthy behaviors, and diet in particular, have been found to be markedly higher in African American adolescents compared to their white counterparts.<sup>14,22</sup> For example, white adolescents (ages 11-12) in the National Heart, Lung, and Blood Growth Health Study showed a greater increase in fruit and nutrient-rich vegetable intake than black girls across six annual assessments.<sup>22</sup> Therefore, it is important to identify factors that may lead to improvements in these behaviors in African American adolescents in order to develop culturally appropriate and relevant interventions and education programs. However, while there have been studies focused on attitudes, beliefs, values, barriers, and the impact of socioeconomic factors and the broader environment on the dietary behaviors of African American adolescents, there is a relative dearth of knowledge regarding factors that may motivate this population to consume healthier diets.

Prospect theory suggests that people respond differentially to factually equivalent messages depending on how these messages are framed; message framing refers to the emphasis in a message on the positive and negative consequences of adopting or failing to adopt a particular behavior.<sup>23-25</sup> Therefore, Prospect theory/message framing emphasizes the *persuasiveness* of communication messages as an important motivator for behavior. Prospect theory posits that people are risk-seeking when confronted with information about losses but risk-averse when confronted with information about gains. Prevention behaviors are perceived as “low-risk” because they are performed to minimize loss, while detection behaviors are considered “risky” because of possible associated short-term losses. Consequently, Prospect theory predicts that gain-frame messages would be more effective in promoting prevention behaviors, such as healthy eating.<sup>23-29</sup> To our knowledge, no health promotion programs in adolescents have explored Prospect theory.

The purpose of this qualitative study was two-fold: 1) to assess diet-related habits, beliefs, and attitudes and query on other factors that may impact dietary intervention design, implementation, and 2) to develop and test the impact of messages based on Prospect theory on motivation to improve dietary intake, specifically increase fruits and vegetables intakes and lower fat consumption, in African American adolescents. Four sets of messages were developed and tested for each behavior: short-term gain-, long-term gain-, short-term loss-, and long-term loss-framed messages. Because eating is a preventive behavior, Prospect theory would predict a gain-framed message to be more effective in encouraging adolescents to eat more healthfully. Furthermore, because most adolescents are not likely to link current dietary habits with future events, we hypothesized that short-term gain-framed messages will be more salient to this population than long-term gained- and loss-framed messages. As part of this study, we also explored other salient factors that may inform the design and implementation of a dietary intervention in this population.

## Methods

### Study design, population, and recruitment

Data in this study were collected using in person (face-to-face) semi-structured interviews that were administered by one of two trained interviewers. Eligible participants were male and female African American adolescents, aged 12 to 16 years residing in Durham, NC. Participants were recruited from a Boys and Girls Club in Durham, NC. Boys and Girls Clubs offer programs and services for both recreation and to promote and enhance the development of boys and girls.

Participants in this study included 13 adolescents (7 females and 6 males). A convenience sample was recruited between August and October 2007. Study staff approached eligible participants and inquired about their interest in the study. All participants provided verbal assent and at least one parent signed a written consent form. Participants received a \$10 Target gift card upon completion of the interview. The study received Institutional Review Board approval from the University of North Carolina at Chapel Hill.

### Conceptual framework: Prospect theory and message framing

We used Prospect theory to guide the design of our messages in this project.<sup>23-25</sup> According to Prospect theory, all health information can be construed in terms of either benefits or costs, and people can be sensitive to whether a behavioral alternative is framed as emphasizing its potential benefits or advantages (*gain* frame) or potential risks or disadvantages (*loss* frame), even when the two frames describe objectively equivalent situations. Gain-framed messages state the benefits associated with doing a behavior; loss-framed messages state the benefits that will not occur if you do not engage in the behavior. Long- versus short-term messages reflect the time period associated with the reward or loss. The most effective message for a desired behavior depends on several factors, including whether the behavior is preventative versus detective, the certainty of the outcome, and the risks associated with the behavior. Gain-framed messages have been shown to be particularly effective for low risk preventative behaviors that have clear and known outcomes, such as sunscreen use and exercise<sup>23-25-28</sup>. In contrast, loss-framed messages have been shown to be more effective for promoting behaviors associated with high risks and uncertain outcomes, such as mammography screening and HIV testing.<sup>23-25,29-33</sup> The framed messages in this study were designed based on the approaches and language used in previous studies.<sup>23-25,29-33</sup>

### Data collection

All participants were interviewed by a trained moderator at the Boys and Girls Club. Interviews were conducted using a semi-structured interview guide that was modified throughout the data

collection process to accommodate emerging themes (Table 1). The interview guide was created in a series of steps to ensure that it was culturally and linguistically appropriate. The Principal Investigator, who is a Nutritional Epidemiologist, developed a series of topics to be addressed during each interview, which were subsequently reviewed and revised by an age, gender, and racially (white/African American) diverse research team. The interviewers employed cues and probes to elicit more detailed information from study participants. All interviews were tape-recorded (with the participant's permission) and ranged between 45 and 60 minutes, depending on respondent loquacity.

### Framed messages

Based on Prospect theory, we designed four sets of framed messages, one each related to fruits/vegetables and fat intake (Table 3).

### Measures

**Demographic, lifestyle, and behavioral characteristics**—We collected information on age, sex, ethnicity, school grade, current height and weight to compute body mass index (BMI) as kg/m<sup>2</sup>, parents' education and employment status. Physical activity was assessed using a 4-item instrument that has been used in other studies.<sup>34,35</sup>

**Usual dietary intake**—Participants reported on the foods/meals they usually consume for breakfast, lunch, dinner, and snacks and the usual preparation methods.

**Psychosocial factors/health beliefs**—Psychosocial factors, including health beliefs, were adapted from previous research.<sup>35-37</sup> Participants reported on self-rated health, healthy eating self-efficacy, and weight satisfaction -- defined as currently doing anything to lose weight (yes, no) and degree of satisfaction with their weight. Respondents were also asked about barriers, benefits, motivators, and social support for healthy eating. Health beliefs included belief in a diet and cancer relationship and what types of foods they considered healthy.

**Preferences for intervention delivery**—We also queried on preferred 1) sources of diet and nutrition information, 2) channel(s) for dietary intervention delivery (in-person, telephone, Internet), and 3) mode of survey/intervention participation (pen/paper, telephone, internet).

### Statistical analyses

**Quantitative data**—Descriptive statistics were computed to describe sociodemographic characteristics and other participant variables. Frequencies and percentages were calculated for categorical variables and means and standard deviations for continuous variables.

**Qualitative data**—All interviews were audio-taped, and later transcribed verbatim by a professional transcriptionist. A percentage of transcripts were reviewed with the original tapes to assure accuracy. For all interviews, textual responses were coded for relevant themes and content using thematic and content analysis by the same staff member. This same staff member also documented the quantitative information, which was cross-checked and confirmed by the Principal Investigator. The limited number of interviews and the semi-structured format of many questions made this approach more efficient than the use of a qualitative analysis tool, such as ATLAS ti software.

### Results

We completed interviews with 13 African American adolescents (7 females, 6 males). Their mean age was 13.5 years (1.19SD), median=13 years, one was of Hispanic origin, most were

in 7<sup>th</sup> and 8<sup>th</sup> grade, and they had a mean BMI of 24.7 (7.7 SD), range 17.2-44.0 kg/m<sup>2</sup>. Nine (69.2%) exercised at least once per week, and seven (53.8%) reported that they exercised three to four times per week for 15-30 minutes. Most (77%) were satisfied with their weight and only four (30.8%) were making active attempts to lose weight. Only one respondent restricted what she ate in order not to gain weight. Finally, most respondents (8, 61.5%) did not live with both parents in the home. These and other participant characteristics are presented in further detail in Table 2.

We also queried on several other factors that may impact dietary intervention design, implementation, and delivery in this population (Table 2). All indicated that they would be interested in participating in a dietary intervention or education program. In addition, the majority (9, 69%) stated that they would be willing to take part in a program that offers diet and nutrition information through the Internet, and that the Internet is their preferred source of nutrition information and preferred channel for dietary intervention delivery. When given the option of selecting among pen/paper, telephone, or the Internet as a mode of survey administration, the preferences were as follows: Internet (n=7), pen/paper (n=4), and the telephone (n=2). Respondents noted that they had several sources of information about diet and health, including family members, medical practitioners, health classes, surveys, and the Internet; their primary and most trusted source of nutrition information was their parents, followed by teachers and other school personnel.

Responses to the questions on message framing are given in Table 3. The majority of the respondents found the gain-framed, short-term messages most salient for both fruits/vegetables and fat consumption. Specifically, for fruits and vegetables, 8 (61.5%) preferred the gain-framed, short-term messages while 4 (30.8%) found the gain-framed, long-term messages most relevant. For fat intake, the gain-framed, short-term message and gain-framed long-term messages were preferred by 7 (53.8%) and 4 (30.8%) participants, respectively; whereas only 2 (15.4%) found the loss-framed, short-term framed message most salient. None of the respondents found either of the loss-framed, long-term messages relevant.

Reasons given for selecting the gain-framed, short-term messages include the fact that this message “talks about having a healthier weight”, “mentions healthy”, “don’t want to get big”; “I do not want to be obese”, “you’ll get fat if you eat lots of fat food”, and “the doctor told me that.” Those who preferred the gain-framed, long-term message noted that “it has more meaning”, “I don’t want cancer”. One respondent noted that none of the messages had meaning to her, and observed that her aunt eats lots of fruits and vegetables but still got cancer.

When we asked if respondents believed what they eat now affects how they might feel in the future, many acknowledged that what they eat now can affect their health in the future; however, the definition of “long-term” varied from 5-10 years to 20-30 years. Responses included “you may get diabetes, high blood pressure later on”; “People who eat fruits and vegetables will not have those problems”; “Probably will affect me when I grow up”; “I’m not sure about whether what I eat now will affect me in 20 to 50 years”.

Selected quotes from respondents regarding knowledge, attitudes, beliefs, and norms regarding diet and nutrition are given in Table 4. Many respondents defined “healthy food” as vegetables and fruits, whereas others equated a “healthy diet” to “well-being and a long fulfilled life” and “not eating a lot of junk”. Several mentioned that their parents and relatives encourage them to eat more healthfully, while others were more motivated by the desire not to obese. Benefits of healthy eating included feeling strong and healthy and not sluggish; the most often cited detriments of not eating healthfully included becoming overweight and developing chronic diseases such as diabetes and clogged arteries.

For illustrative purposes, we have categorized the respondents definitions of “healthy food”, “healthy diet”, and “motivators to eat healthfully”, with representative quotes. With regards to the definition of a “healthy diet”, responses appeared to fall into 4 subcategories: a) eating balanced meals (e.g. ‘important to balance your meals’; ‘eating from different food groups’); b) eating specific foods (e.g. ‘Chinese’, ‘fish, dairy, certain meats’); c) avoiding specific foods (e.g. ‘not eating a lot of junk’); and d) effects on well-being (‘a long fulfilled life’). For the definition of “healthy food”, responses were largely in 2 subcategories: a) eating specific foods (e.g., ‘eating fruits, vegetables, salad, bananas, fruits, etc’) and b) avoiding fat and sweets (e.g., ‘not too much fat or sweets’). Motivators to eat healthfully largely fell into 3 sub-categories: a) motivated by family (e.g., ‘mom does not eat high fat foods’); b) motivated by influential adults (e.g., ‘my aunt who is a doctor’); c) self-motivation (e.g., ‘gives me energy.’)

## Discussion

The objectives of this qualitative study of African American adolescents in North Carolina were two-fold. First, we aimed to assess diet-related habits, beliefs, and attitudes and query on other factors that may impact dietary intervention design, implementation in African American adolescents. Secondly, we developed and tested the impact of messages based on Prospect theory on motivation to improve dietary intake, specifically increase fruits and vegetables intakes and lower fat consumption, in this population. Our results indicate that most respondents found the gain-framed, short-term messages most salient for motivating them to increase fruit and vegetable and lower dietary fat consumption and none found the loss-framed, long-term messages particularly relevant. The majority was interested in participating in a program about diet and nutrition, and most stated that the Internet was their preferred channel to participate in such a program and to answer questions about diet and nutrition. The participants expressed diverse views regarding knowledge, attitudes, beliefs, and norms regarding healthy eating.

It is interesting to explore the respondents' definitions and conceptualization of “healthy foods” and factors that affect dietary behavior. Not unexpectedly, many of our participants considered fruits and vegetables to be healthy foods. Nonetheless, in light of the fact most of them did not consider the long-term messages related to healthy eating particularly salient, it is interesting that several associated a healthy diet with a “long and fulfilled life” and noted that one disadvantage of not eating healthfully is the development of chronic diseases like diabetes. Possibly, the same respondents (n=4) who found the long-term (gain-framed) messages relevant also equate healthy eating with long-term well-being. Not surprisingly and as has been found in other studies,<sup>38-41</sup> the respondents' primary and most trusted source of nutrition information was their parents, followed by teachers and other school personnel. This highlights the importance of 1) parents communicating with their children about diet and overall health in a positive and accurate way and 2) incorporating diet and nutrition as part of the curriculum, particularly to counteract misinformation that may be obtained from other sources such as friends and sometimes, the Internet. Also, our results suggest that adolescents are interested in ways in which they can eat healthfully, despite environmental conditions such as schools' lack of fruits and vegetables, parents picking up fast food, and limited financial resources. However, it is important to note that this group of adolescents were relatively health-conscious, as most reported exercising 3-4 times per week for at least 15 minutes and most were generally satisfied with their weight.

As expected for a low-risk preventive behavior such as healthy eating, the gain-framed messages were most relevant, and only two of the respondents found the loss-frame (gain-frame) messages salient for fat intake. We examined other responses by the two participants who found the loss-framed messages salient. Interestingly, their responses to other questions

did not differ appreciably from those of other respondents, and the rest of their interviews did not differ markedly from the others.

Also not surprisingly, the majority of respondents found the short-term messages most salient, as adolescents are more likely to take a short-term versus a long-term outlook. In fact, we were rather surprised that 4 of the 12 respondents preferred the long-term (gain-framed) messages, given that it is generally expected that adolescents may not conceptualize the importance of health issues in the long term. These results suggest that it should not be automatically assumed in studies of message framing among adolescents that only the short-term messages may be pertinent.

We also obtained potentially useful information regarding dietary intervention and education program delivery. It is encouraging that the majority of respondents expressed interest in participating in a dietary intervention or education program. Similar findings have been reported in other studies, including those of American Americans. Also, given the ever growing popularity of the Internet among adolescents, it is also not surprising that most would prefer the Internet both as a channel for delivery and as a means of conducting surveys related to diet and nutrition. These results suggest that researchers conducting research in this population should consider using new technology; specifically, the Internet should be explored as a mode both for collecting dietary/health behavior data and as a means of implementing dietary and other health behavioral interventions.<sup>45-47</sup> Although we did not query specifically on personal digital devices and text messaging it is possible that these may also be viable approaches to conducting nutrition research in this population.

Strengths of this study include the focus on African American adolescents, who are relatively understudied with regards to health-related behaviors. Also, the use of qualitative interviews enabled the collection of rich and detailed data than a more rigidly structured approach. One limitation of the study includes the relatively small sample size; however, we reached saturation for most themes. Also, all participants resided in the same city, which may have limited the heterogeneity of the sample. It is also important to note that beliefs influence but do not necessarily shape adolescent's behavior. For example, adolescents may find the gain-framed message salient, but this does not mean that they implement positive behaviors in their daily lives.

In summary, in this qualitative study of 13 African American adolescents in North Carolina, gain-framed, short-term messages were most salient for motivating the majority of respondents to increase fruit and vegetable and lower dietary fat consumption and none found the loss-framed, long-term messages particularly relevant. Most participants expressed a strong interest in participating in programs about diet and nutrition, such dietary interventions and education programs, and most stated that the Internet was their preferred channel to participate in such a program and to answer questions about diet. These findings suggest that researchers conducting dietary interventions and education initiatives and medical professionals (including nurses and physicians) who counsel African American adolescents should consider Prospect Theory as a potential theoretical framework to guide the design of their programs and should focus on gain-frame short-term messages about cancer prevention and other aspects of diet and health. Also, researchers should consider employing the Internet as a data collection and intervention delivery modality and medical professionals should leverage the popularity of this medium in this population as a means of providing diet- and cancer prevention-related information. Finally, more studies are needed to explore how both gain- and loss-framed messages (short- or long-term) relate to motivation and behavior with regard to eating habits.

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**Table 1**  
**Interview guide for the semi-structured interviews in a qualitative study of African American adolescents**

Definition of a healthy diet
Sources of information about healthy eating fruits and vegetables?
Psychosocial factors affecting healthy eating, e.g., self-efficacy, social support, knowledge, beliefs, attitudes, etc.
Environmental factors affecting healthy eating, e.g., cost, availability, convenience, etc.
Benefits and harms of personally eating a healthy diet
Willingness/preferences of methods of taking part in a dietary intervention or education program
Willingness/preferences of methods of answering questions about diet and nutrition
Do you believe that what you eat affects the way you feel today? In 5 years? 10 years? 20 years? 50 years?
Which of these messages (relevant to Prospect theory) most appeals to you? Why or why not?
Demographic and lifestyle characteristics

**Table 2**  
**Selected characteristics of participants in a qualitative study of African American adolescents in North Carolina (n=13)<sup>1</sup>**

Participant Characteristic	All participants (n=13) N (%)
<b>Sex</b>	
Male	6 (46.2%)
Female	7 (53.8%)
<b>Age (years)</b>	
12	2 (15.4%)
13	7 (53.9%)
14	1 (7.7%)
15	2 (15.4%)
16	13.5 (1.19)
Mean (SD)	
<b>Body mass index (kg/m<sup>2</sup>)</b>	
Normal (17-24.9)	6 (46.2%)
Overweight (25.0-29.9)	3 (23.1%)
Obese ( $\geq 30$ )	1 (7.7%)
Mean (SD)	24.7 (7.7)
<b>School grade</b>	
7 <sup>th</sup>	4 (30.8%)
8 <sup>th</sup>	4 (30.8%)
9 <sup>th</sup>	0 (15.4%)
10 <sup>th</sup> or higher	3 (23.1%)
<b>Engage in physical activity at least once per week</b>	
Yes	9 (81.8%)
No	2 (18.2%)
<b>Number of times respondent exercises per week</b>	
None	1 (9.1%)
1-2 times	1 (9.1%)
3-4 times	7 (63.6%)
5+ times	2 (18.2%)
<b>Typical length of exercise sessions</b>	
Less than 15 minutes	2 (18.2%)
15-30 minutes	7 (63.6%)
More than 60 minutes	2 (18.2%)
<b>Currently actively attempting to lose weight</b>	
Yes	4 (30.8%)
No	9 (69.2%)
<b>Currently satisfied with their weight</b>	

<b>Participant Characteristic</b>	<b>All participants (n=13) N (%)</b>
Not satisfied	3 (23.1%)
Satisfied	5 (38.5%)
Somewhat satisfied	2 (15.4%)
Very satisfied	3 (23.1%)
<b>Describe how much you eat....</b>	
Eat as much as I want	6 (46.2%)
I watch what I eat so that I do not gain weight	6 (46.2%)
I restrict what I eat so that I do not gain weight	1 (7.8%)
<b>Would you be interested in participating in a diet and health intervention or education program</b>	
Yes	13 (100%)
No	0 (0%)
<b>Would you answer questions about diet and nutrition through the Internet?</b>	
Yes	9 (69.2%)
No	2 (15.4%)
Don't know/prefer not to answer	2 (15.4%)
<b>Would you participate in a program that gives you information about diet and nutrition through the Internet?</b>	
Yes	9 (69.2%)
No	1 (7.8%)
Don't know/prefer not to answer	3 (23.1%)
<b>Would you choose to answer questions about diet and nutrition using pen and paper, by telephone, or on the Internet?</b>	
1 – Internet; 2 – Pen/paper; 3 – Telephone	3 (23.1%)
1 – Internet; 2 – Telephone; 3 – Pen/paper	4 (30.8%)
1 – Pen/paper; 2 – Internet; 3 – Telephone	2 (15.4%)
1 – Pen/paper; 2 – Telephone; 3 – Internet	2 (15.4%)
1 – Telephone; 2 – Internet; 3 – Pen/paper	2 (15.4%)

<sup>1</sup>Numbers may not sum to the total and percentages may not add up to 100% because of missing data and/or rounding.

**Table 3**  
**Four sets of framed messages used in a qualitative study of African American adolescents in North Carolina (n=13)**

		<b>1<sup>st</sup> Preference</b>	
		<b>N</b>	<b>%</b>
<b>Frame</b>	<b>Message related to fruits and vegetables</b>		
	You have many choices about the types of foods you eat. If you <u>eat a diet high in fruits and vegetables</u> , ...		
Gain- framed, short-term	you will have more energy and are more likely to maintain a healthy weight.	8	61.5
Gain- framed, long-term	you will have a lower risk of cancer over your lifetime.	4	30.8
Loss- framed, short-term	you will have less energy and are more likely to be overweight.	0	0
Loss- framed, long-term	you are more likely to not develop cancer over your lifetime.	0	0
		<b>1<sup>st</sup> Preference</b>	
		<b>N</b>	<b>%</b>
<b>Frame</b>	<b>Message related to fat intake</b>		
	You have many choices about the types of foods you eat. If you <u>eat a diet low in fat</u> , ...		
Gain- framed, short-term	you will have more energy and are more likely to maintain a healthy weight.	7	53.8
Gain- framed, long-term	you will have a lower risk of cancer over your lifetime.	4	30.8
Loss- framed, short-term	you will have less energy and are more likely to be overweight.	2	15.4
Loss- framed, long-term	you are more likely to not develop cancer over your lifetime.	0	0

**Table 4**  
**Selected quotes from study participants regarding factors that affect dietary intake in a qualitative study of African American adolescents in North Carolina (n=13)**

<b>Definition of a healthy diet...</b>
○ Getting right amount of fruits and vegetables, apples, peaches, orange juice,
○ Not eating a lot of bread, meat salt butter
○ Well-being, long fulfilled life
○ Not eating a lot of junk
○ Eating fish, dairy, certain meats
○ Eating from different food groups
○ Chinese food
○ Important to balance your meals
<b>Definition of healthy food....</b>
○ Eating fruits, vegetables, salad, bananas, apples, salads, broccoli
○ Corn, beans, rice, dairy, protein
○ Watching sugar, not too many sweets
○ Not too much fat or sweets
<b>Motivators to eat healthfully (more fruits and vegetables, low fat)...</b>
○ Mom and dad; mom does not eat high fat foods; nutrition teacher; grandmother; aunt; family
○ Big people – I don't want to be big myself; family – because they want me to be healthy
○ My aunt who is a doctor; mom; health class; no one – I fix my own meals
○ I already eat a lot; if it is something I like; mom made me vegetables when I was younger
○ Gives me energy; I like them; taste
<b>Benefits to eating a healthy diet...</b>
○ Don't have to be sluggish, more energy
○ Can't run when I am tired
○ Make me feel better
○ So much can happen if you don't – diseases--obesity
○ Because you can get overweight and it is hard to get back in shape
○ Make you stronger, make you healthy, more energy
○ Lose weight
<b>Possible detriments/harms to not eating a healthy diet...</b>
○ Staying overweight – parents' families are overweight
○ Becoming overweight
○ Not willing to do anything, easy to become a couch potato
○ Nothing
○ Developing diabetes and other stuff I am not trying to get
<b>Reasons why you may avoid high fat foods...</b>
○ May clog arteries
○ When I see inside fast food and how they prepare the food, McDonald's, for example

<b>Situations in which you might eat healthy (more fruits and vegetables, low fat)...</b>
○ At home – breakfast and dinner, lunch is bought at school
○ Farmer's market
○ Not feeling healthy
○ Trying to impress someone
<b>Barriers to healthy eating...</b>
○ Junk food (chips/candy) taste good
○ Don't like the taste of vegetables
○ Don't like how some vegetables look and smell
<b>Sources of diet and health information...</b>
○ Parents and siblings
○ Internet
○ Doctors and nurses
○ Surveys like this
○ School
○ Coaches