

Formative Research on Adolescent Food Choice in East Baltimore

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Abstract

This paper presents the results of formative research conducted to understand the predominant influences on African American adolescent diet in East Baltimore. Through in-depth interviews, participant observations, focus groups, and a photo diary, we explore adolescent eating habits, definitions of healthy, and environmental and familial influences on food choices. We identify new terminologies to categorize foods, and find that adolescent diet in the East Baltimore is shaped by what is available, convenient, and affordable. While adolescents are able to exercise choice in deciding what to eat and when, their decisions are influenced by conditions outside of their control. Decisions of what to buy are shaped by what is available in the community; and decisions of when and why to buy food are associated with perceptions of foods available in the home or at school as either too “nasty,” or of limited supply, to meet their needs. We conclude with suggested approaches to adolescent nutritional interventions.

INTRODUCTION

The prevalence of overweight in adolescents age 12-17 living in the United States has tripled in the past 20 years.¹ The prevalence of overweight is increasing fastest for African-American, and Hispanic children and adolescents.² By 1998, overweight prevalence had increased to 21.5% among African Americans, 21.8% among Hispanics, and 12.3% among non-Hispanic whites. Poverty and lower educational attainment are associated with higher rates of female obesity, with disproportionate impact in minority populations.³

Adolescence appears to be one of the three critical periods in childhood for the development of obesity,⁴ and adolescent obesity is associated with excess mortality in adulthood, largely because obese children are more likely to grow into obese adults, who experience higher rates of disease.⁵ Although having obese parents approximately doubles the risk of becoming an obese adult;⁶ the mechanism by which this operates remains largely unexplored.

Many other factors, including physiologic and biological markers (blood pressure, lipid and insulin levels), sleep status, and possibly weight at birth,⁷ in addition to exercise, and genetic composition are associated with obesity.⁸ In this paper, we have chosen to focus on the social and environmental factors that inform dietary choices among adolescents in East Baltimore.

Factors influencing adolescent diet

Many factors, including social and physical environment and the media influence the prevalence of overweight among African American adolescents in the United States. The social environment in which adolescents come of age is

forged by socio-cultural factors such as family, ethnicity/race, income, and gender.

In the family, parents are key players in the prevention and treatment of weight-related problems in adolescents. Family mealtime has been shown to be an important influence on adolescent diet. Research has suggested that children tend to have improved dietary quality when parents model positive food-related behaviors and are present during mealtime.⁹ The presence of parents at an evening meal is positively associated with higher consumption of fruits, vegetables and dairy foods by adolescents; and is negatively associated with skipping breakfast¹⁰ and consumption of fried food, soda, and less fat.¹¹

Other aspects of family environment that contribute to adolescents' eating patterns include television viewing during dinner, which is associated with lower fruit and vegetable consumption, as well as higher fat consumption.¹² In Baltimore, qualitative, and ethnographic investigations revealed that many low-income, African-American teen mothers, are dependent on their grandmothers for deciding what their infants should eat. Although this study did not specifically investigate adolescent eating patterns, it demonstrates that, within the family environment, grandmothers have a significant role in the lives of teenagers in this population.¹³

Parents and adolescents share a mutual, reciprocal influence on each other's eating habits. That is, not only do parents shape adolescent eating patterns, as previously described; some evidence also suggests that parents are two- to three-times more likely to designate their children as the family expert for

choosing fast food, snack foods, and restaurants. Indeed, children and adolescents influence an estimated 338.84 billion dollars spent on food sales annually. A 1989 survey of parents found that children's desire to eat advertised food was one of their barriers to eating healthier foods at home.¹⁴

The physical environment where adolescents spend their time also has a profound effect on their health. School lunches comprise roughly 35% to 40% of students' total daily energy intake.¹⁵ Vending machine purchases compose 3% of all adolescent eating occasions while 78% of vending machine purchases occur at school. More than 90% of schools offer an a la carte lunch programs. A la carte availability is inversely associated with fruit and vegetable consumption, and positively associated with total and saturated food intake.

Within neighborhoods, the prevalence of fast food restaurants¹⁶ and the expensive cost of fruits and vegetables in poor communities¹⁷ are important factors impacting diet. Qualitative research showed a dose-response between SES and density of fast-food outlets, with people living in the poorest category having 2.5 times the exposure to outlets than people in the wealthiest category.¹⁶ The average adolescent visits a fast food restaurant twice a week. Fast food outlets provide about one-third of the away-from-home meals consumed by adolescents. In addition to higher prevalence of fast food restaurants, low-income communities bear the burden of higher fruit and vegetable costs; and have less access to food stores.¹⁷ There are 4 times more supermarkets located in white neighborhoods compared to black neighborhoods. Convenience stores and fast-food outlets are often located near school buildings and recreation centers, making them

convenient and accessible food sources for adolescents in low-income neighborhoods.

Media studies on the behavioral effects of advertising reveal that television has a major effect on the products children ask for, and that increased television watching leads to increased requests for advertised products.⁷ Television advertising creates misperceptions among children about the nutritional values of foods and how to maintain positive health.¹⁸

Although qualitative and quantitative research exists on adolescent obesity and its associated factors, few studies explore how adolescent's understandings of a healthy diet affects food purchasing choices in the United States. In an attempt to understand the familial and environmental factors that influence adolescent diet and food choice in Baltimore, Maryland, the current study investigated the association between adolescent perceptions of healthy and their eating habits.

The initial primary research questions were:

- 1) What are the familial and environmental factors that influence African-American adolescents' diets in East Baltimore?
- 2) How do African-American adolescents' concepts of a healthy diet influence their eating habits?
- 3) What influences food choices of African-American adolescents in East Baltimore?

Research was conducted in the spring of 2004 as part of the formative phase of the adolescent component of the Baltimore Healthy Stores Project in East Baltimore; and to fulfill requirements for an exercise in a class on Qualitative Methods, taught at the Johns Hopkins Bloomberg School of Public Health. The Healthy Stores project aims to improve health and prevent obesity and disease in low-income communities through culturally appropriate store-based interventions

that increase the supply of healthy foods and promote their purchase. The Healthy Stores Project addresses individual and environmental factors to support dietary behavior change at the individual and community level.

METHODS

A proposal was first submitted to and approved by the Committee on Human Research of the Johns Hopkins School of Public Health. The opening and explanatory statement to the informants included the initial contact with the community organizations and individual informants in the form of conversations and fliers, a parental/guardian consent form, an adolescent assent form, and the introductory statement outlined in the field guide. In the consent process, we explained the reason for the interview, the population being studied, the intervention the information learned will inform, and the proposed length of the interview. In addition, we let them know that they could stop the interview at any time, that we would be audio taped, and that every effort would be made to ensure confidentiality.

We contacted three community organizations in East Baltimore, which serve teen populations. Our inclusion criteria were: age greater than 12 and less than 18 years, resident of East Baltimore, and African American ethnicity. Six students performed fifteen in-depth interviews with nine individuals. We used purposeful sampling to locate teens who would fulfill inclusion criteria and be cooperative participants. One community center served teens who had dropped out of school and provided job preparedness training. The other two centers

served a school based population and provided after school care and activities. These teens tended to be younger than those contacted through the other center. In order to get a broader picture of adolescent food choices in East Baltimore, we used maximum variation sampling and interviewed a variety of teens, including boys and girls, older and younger teens, those who live with their parents and those who do not, high-school drop outs and good students. We found confirming and disconfirming cases related to themes which arose in the interviews. For the purpose of focus groups, we used homogeneous sampling methods. Two focus groups were performed. One was a girls' group and the other was a boys' group, and all participants were recruited from after-school community programs. Three girls were given disposable cameras and asked to take pictures of the food they ate over a three-day period. Photographs from this "photo-diary" exercise were then used in the focus groups in pile sorting and discussion.

In addition, four team-members performed seven informal interviews with adults familiar with teen eating behavior: one teacher, one parent, one storeowner, and four community center administrators. These discussions helped us frame our research questions and acted as data triangulation to improve data quality. Six investigators performed participant observations in stores in the East Baltimore area, some of which were specifically identified by our informants as locations where they purchase food. These included six supermarket-type stores and nine carryout or fast food stores.

DATA ANALYSIS

The process of our content analysis was an iterative one, which began as soon as we finished our first round of in-depth interviews in January of 2004. We utilized a de-contextualizing approach to look for recurrent topics. The process included multiple reads of the text, followed by identification of salient themes. Bi-weekly meetings served as opportunities to begin funneling large quantities of data into more narrow topics for further exploration. After finishing a total of fifteen in-depth interviews at the end of March, we met with staff members of the Healthy Stores Baltimore project to discuss the most prominent points from our interviews. One team member also quantitized what foods appeared most frequently in all of our interviews. During our second term, we continued the de-contextualizing approach, this time with greater understanding of the community through participant observations and member checks. In preparation for our final analysis, we divided up the categories of factors that affect adolescent diet, and synthesized findings from all of our interviews, observations, focus groups, and photo diaries.

FINDINGS

Eating Habits

Chicken (fried, baked, chicken nuggets, chicken patties), macaroni, greens, pizza, noodles, french fries, grits, eggs, milk, and soda drinks are the most commonly mentioned foods in the interviews. Dinner is the most frequently noted place where adolescents eat home cooked meals and meals out are eaten at corner stores, school, fast food restaurants, and the mall. Reasons for eating food outside the house tended to be for convenience and time.

Like say if you want something from the market, you have to go, you have to buy it, you have to go home, then you have to pluck it and wash it, and then you gotta cook it, but when you go the um, store all you have to do is just buy it and eat it. (female, 16).

The convenience of eating outside the home is reflected throughout the respondents' answers to what they eat on a typical day. Several informants note that they often do not eat breakfast; and if they do eat in the morning, it is often pre-packaged, high starch foods. The perception of constrained time was a common reason to skip breakfast.

I don't even eat breakfast. I eat no breakfast in the morning. I just straight, get up, go downstairs, take my shower, make up my bed, before I leave, clean up, vacuum, *all* this before I leave the house. (African American male, 17)

Due to the morning rush, several adolescents report stopping by the grocery store, or corner store, to purchase a fast breakfast before heading to school. One 16 year old male informant mentions that he stops every single morning on his way to school at the local corner store, to pick up a soda, some candy or some chips. Those who do eat at home, prefer to eat cereals on weekdays and eggs, bacon, and sausage on the weekends. Only one respondent mentions that her mother cooks her a full breakfast of eggs, sausage, and french toast minis during the week.

Lunch for those respondents who are in school is generally the free school lunch offered to those on food stamps or the WIC program. School lunches generally consist of pizza, sloppy joes, hamburgers, chicken nuggets, tator tots, French fries, and a juice. Snacking between meals is commonly mentioned in the interviews. Snacks for most consist of potato chips, soda, or fast food at either McDonalds, Burger King, or a chicken

box. While eating outside the home is common, for some, deciding to eat foods outside the home also is seen as a way to “spoil oneself” and do something out of the ordinary.

I like turkey, chicken, seafood, typical stuff. I mean it's a cheese steak every once in a while. Like every other week I have a cheese steak to myself. Saying I might as well spoil myself...spend my money on a cheese steak or a whole pizza and sit down, eat, take my time, drink a little bit of water. (male,17)

Several adolescents mention snacking after dinner; one has her choices of ice cream, cake, or fruit tightly regulated by her grandmother while an older boy tends to leave home after dinner and buy a cold cut or cheese steak, candy, chips. One respondent describes buying food every night, after food has been “locked down” after dinner:

it's usually “locked down” after [dinner]... like you just can't go back in there and get something, unless you buy it from the store.” (male, 17)

As suggested by the description of limited access to snack food in the home, purchasing food after dinner appears to be a function of availability of food at home. The same respondent elaborates on his comments, by describing the influence of how much money is available, and how much they've chosen to eat earlier – how much they are “gonna get... outta dinner”:

you usually you gonna get what you want outta dinner...and they gonna depend on how much they gonna eat by how much money they have in their pocket, and then they usually go to the store, and buy whatever. they buy with their money, or they buy how much their stomach would allow them to let 'em hold. And eat it because it's good. And that's just the end of the day. Come home, and go to sleep.... (male, 17)

High sugar/fat content foods also predominate among foods purchased at night as noted by the respondent and in a follow up observation:

For each night five days in a row you probably would get snickers, twix, bag a chips, and a soda, and probably a night for every day that week. Or switch up on the candy, and the soda...(male 17)

Observations at corner stores confirmed that adolescents purchase predominantly small items of high sugar and/or fat content, including candy, gummy worms, ice cream potato chips, chocolate, and pre-packaged pies. On a weekend day at one of the local malls, food purchasing was in full swing after 2pm, and most adolescents were not purchasing items of lower fat or sugar content. The initial notebook observations describe the scene:

[There was] a constant stream of people in and out of the restaurants, eating pizza, fried chicken, and hamburgers. There were no what may be considered “healthy options,” but the restaurants did have salads available, but no one (not surprisingly) seemed to order them (participant observations)

Food appearance is a factor in purchasing decisions of adolescents. For one informant, the importance of looking at her meal is related to a suspicion of food quality or safety, as much as it is to establishing the “nastiness” of the meal.

I always look at my food, cause, I don't trust McDonalds, I don't trust nobody with my food, so I always look at my food, I look at, I look through it, I open it up, and then I get my ketchup, for my French fries, and I eat it! (female, 16)

The following account, of the first time and young female purchases take out food, highlights the influence of friends, and the appearance of food, on initial purchasing decisions; and how behaviors are re-enforced by their reaction to the taste of the food itself:

When I first went there I was with my best friend. We had some money and so she was like try this and I said, it nasty and she was like no it not and she said who told you that and I told her that Daniela told me and she said no it not and I tried it and I liked it and so I kept on getting it. (female, 12)

In order to make food choices, adolescents must have a source of disposable income. Most respondents report receiving an ‘allowance’, or other regular source of funds for food, from their parents or guardians. For example,

one younger informant receives \$1.50 each day from her aunt or mother for snacks to supplement the free lunches at school, and snacks at Girl Scouts. She then spends this money at Stop Shop and Save, or vending machines in the school cafeteria. Several older adolescents mention a mixed-source of income to supplement their food purchasing, including working:

... I get an allowance [from] my mother. She give me a little allowance here and there. So that's all right. I mean, just to have a little spending money in your pocket sometimes. Or, if nobody give me money, or my family members don't give me money, I go work for it. (male, 16)

One 16-year-old female is proud of her ability to save her money for the things she wanted. She states that, "they call me cheap but I save my money." While the items she purchases are similar to other adolescents, her choice of how much to pay for those items appears to be slightly more deliberate:

Yeah, cause they have the snack line... and sometimes, and um, but the French fry line is where you get your lunch from... and I don't really get that nothing at the snack line cause its too high...I'm not paying all that money for that... the little [pizzas], they's \$2.75, I think, and I'm not paying that money for a little pizza... (female, 16)

Although price is not a primary topic of most interviews, several other adolescents demonstrate an awareness of prices, and their accounts suggest that their decisions are framed, at least in part, by cost sensitivity. However, even without a ready source of cash, some adolescents are able to make arrangements with corner store owners that allow them to purchase food on credit. One 13 year old female has been going to the same corner store since she was three years old. Her connection to the store owner is such that if she doesn't have enough money to pay "he let you go anyway and then you just bring it back when you got it."

Previous formative research for the Healthy Stores initiative, conducted in 2002, found complex relationships between storeowners and adult customers,

which were confirmed by our interviews and observations. Direct observation reveals that many stores are owned by individuals of other ethnic backgrounds; and adolescents' relationships with these owner/managers varied from friendly, and name-based, such as the relationship described by the African-American female quoted above, with an Asian store owner; to impersonal and aloof – such as the sweeping description another informant gave of the majority of corner store owners as “Asian, something, I don't know. But mostly Chinese people.” Direct observation on a Saturday night appeared to confirm the range of responses. In a store staffed by several men with dark brown skin, of apparently Mediterranean, or middle-eastern ethnic background, with a Plexiglas barrier separating consumers from staff, the observers were struck by the often belligerent tone of several people (including, but not limited to, adolescents), who would demand their food in sharp, curt imperatives, such as “gimme a chicken box,” or “hurry up with them western fries.” Immediately across the street, in a store that notably did not have any Plexiglas, adolescents were greeting the African American owner/manager by name, with seemingly familiar smiles. While the fact that it was Saturday night may have influenced the behavior observed in the first store, the contrast suggests it also suggests that the presence of Plexiglas, and/or the ethnicity of store staff may occasionally influence adolescent-store relationships.

Adolescent Concepts of Healthy

Our initial field guide asked respondents to differentiate between healthy and unhealthy foods. However, with the exception of one respondent, these categories do not seem to be useful. Respondents refer to “soul foods,” “clean

foods,” “home foods,” “store foods,” “junk foods,” and “southern foods” in their interviews, and do not spontaneously employ the categories of “healthy” or “unhealthy.” Most respondents appear to distinguish between foods that are cooked by family members in the home – which are preferred, and considered “better for you” than foods eaten outside the home: at school, in corner stores, or fast food restaurants.

Soul food and home foods do not necessarily translate to foods generally considered healthy. Soul food is categorized by several of the adolescents as something you eat with your family at home. The categories of home foods and soul foods are somewhat synonymous on this point. A pile sort activity with an adolescent male sorted many soul foods as “not clean.” Table 1 shows the results of the pile sort activity in which the informant categorizes the foods as soul foods or not soul foods and then as clean foods or unclean foods.

An adolescent girl defines home foods and junk foods as two food categories. Home foods are those foods cooked and eaten at home and junk foods are those generally bought outside the home that does not require cooking. In a pile sort activity, foods previously described as junk foods, are classified as store foods. Some foods were simply classified as “not foods” such as potato chips, ice cream, and cake and the later grouped with foods termed “store foods.” The results of the pile sort are displayed in Table 2.

When asking about unhealthy foods, there were two main self-reported categories which emerged: greasy/fatty foods and sugary/high calorie foods. Greasy foods included: fat fried foods, cheese steak subs, fried fish, fried

chicken, chips, McDonalds, hamburger, steak, and for one informant, pork was the single unhealthiest food. However, focus group discussions reveal that as long as the chicken and french fries in a chicken box were crispy, they were not considered “greasy.” This may explain why several mention asking for “western fries,” which are the crispier option as compared to other french fries.

Foods such as candy, soda pop, potato chips, chocolate, and cookies are categorized by respondents as store bought and either “not foods,” “unclean,” or “unhealthy.” However, this does not affect adolescent eating habits as all five foods are mentioned as being frequently eaten. Broccoli, vegetables, and fruits like apples, oranges are classified as “healthy,” “clean,” and “home foods” by all three adolescents. Vegetables are described by one girl as “how we grow,” “giving you minerals, calcium, and calories” while broccoli serves to “help you be healthy”. Yet, vegetables, specifically peas and cabbage, are the most commonly disliked, “nasty” food and described as “making you want to throw up.” Adolescents mention hearing about healthy foods in health education class at school and the home. Television is also mentioned as an important factor, both on commercials and specific programming on a health channel.

The definition of a “healthy person” tended to be easier for adolescents than that of healthy or unhealthy foods. Throughout the interviews, there are some common notions about perceptions of a “healthy person”. These generally include ideas related to activity level, body image, and to a lesser degree, specific food intake. Being healthy appears to be unrelated to age as long as one is active;

one respondent says that his grandparents are the healthiest people he knows because they are “active”.

Physical appearance and hygiene are also important aspects of health. With the exception of one respondent who links being healthy to being big, adolescents consider people who are thin, have a “nice shape,” are a little bit “bony,” and do not weigh too much to be healthy. One informant considered her interviewer to be healthy because she “looks like a vegitarian (sic)”, she associates with attributes of healthy skin, hair that is not “nappy,” no pimples, and “looking fit.” When asked if she could think of any characteristics of a healthy person, the same participant explains “That’s it...someone who takes care of their hygiene.” She describes the great importance she places on cleanliness:

I don’t wear the same underwear, the same unclothes...like I don’t even wear the same uniform...like I got three uniforms but I wash them. I got three but I don’t wear them on the weekends and I wash them. I keep my hair treated and greased. And I keep myself put up.
(female, 13)

Image is important to many of the respondents. A participant observation at the mall directly highlights the juxtaposition of eating behavior and looking good. Even compared to other observation areas, this mall appears to engender a sense of pride in appearance. As the observer wrote:

I was impressed at how well the younger girls and women were dressed. Everyone’s clothes tended to match. If a girl had on blue shoes, she had a blue belt and a blue purse. Boys’ hats matched their jerseys and pants. The colors of the clothes on people and in the stores seemed so much brighter than at Towson Mall. A young woman buying a funnel cake had on florescent pink high heels and a black t-shirt with a hot pink Che Guevara on it...(participant observation)

Another example of the importance of youthful image to the idea of health is described by a 17 year old male informant:

My godmother. Out of everybody I know, she probably the healthiest person. She has, like ah, she take these pills. They for cleaning your colon out... it cleans her whole system

out. Every day. She take em every day. Bout 3-4 times a day. And she say, she feel younger, I say “younger, what you mean you feel younger?” She is 59 years old. She don’t look 59. She look like she 30 years old. I say, man, I’m going to have to start taking them pills. (male, 17)

In contrast, people who are considered unhealthy have behaviors relating to inactivity, are overweight (“big”), have poor hygiene, eat junk food, abuse alcohol (“winos”) and smoke. Again, image and personal appearance seem paramount.

When asked about someone who was unhealthy, one girl replies,

I know this boy named Darian. He’s dirty...he’s stinkin, he pees in the bed...Cuz I know his sister and I go to his house. We had a big pizza and he smelled like fish. That’s it...and his clothes are dingy. (female, 13)

Drinking water to “keep your system clean” and stay healthy is a recurrent theme among many of the interviews. Water is described as “the source of everything”, and an important way to “keep your insides healthy”.

So something told me “start drinking a bottle of water every morning, noon, and night”. Now I’m drinking at least 2, 3 gallons a day. Now water, you got to keep water in your system, that’s the only way you’re going to keep your system clean. (male, 17)

Another respondent echoes this sentiment, saying water “flush[es] a lot of cholesterol out your body, you know, unwanted cholesterol. Keeps you hydrated. Keeps you active, you know?” (male, 17) Drinking enough water is part of a larger concept of acquiring sufficient daily nutrients to remain healthy:

...how many vitamins and minerals I need to have of this. to put in my body to make sure that my body is healthy, has enough of that, cause they like say your body has to have a certain amount of water each day, and minerals and vitamins and stuff, like once you know that, you can kinda like pick out the food that has that number, or whatever, and once you put it in your body you know you gonna be good, 'cause that's health in your body. (male 17)

The benefits of water, and other nutrients, seem to accrue irrespective of the ingestion of other foods:

The cheese steaks might make me fat, that's all it is, but at least you're still having your vitamins and your minerals in your body... I feel like as long as I get enough water, then I'mmo be all right. (male 17)

After bringing up the concept of a 'balanced diet', he likened the necessity of maintaining a balanced diet to maintaining a car:

I think that [a balanced diet] keep the body functioning well. Like a car. If it don't have an oil change when it need one, it's not gonna run right. If you don't get your daily vitamins, you're not gonna run right. (male 17)

Foods high in processed sugars are thought to cause you to be overweight, give you high blood pressure, to “make you hyper”, and “mess your teeth up”. For one informant, the importance of attractive teeth is very important to self-image. “You [interviewer] take your time with it, you can do it. Your teeth be nice pearly white, like people want it to be. Have a nice smile; they probably think you’re something. I mean, talk to you and everything.” (male, 17)

This illustrates the importance of a healthy image to many teens for the purpose of looking attractive to others. Looking healthy is an important adjunct to dressing well in the teen social world. Image is important not only to attract the opposite sex and look good, but also to survive in a hostile and dangerous environment.

And this was East Baltimore. And I don't know what he got shot for, but it wasn't called for. I mean, that's too much. That just hurts your whole community. Just to know that another kid on the block is gone. That's tough. You feed em on the block, you help them out, sometimes they help you. But I mean all the people here is not the same. They're not, how you could say...all of them are not bad. You could say that. All of them not bad. Some people might dress, look like they're gonna do something, but they not. They might dress to kill, but they won't do nothing. Some people soft at heart. And I mean I might be one of the type of people, I mean, I'm very educated, I mean I don't like seeing all this stuff going on out here, on the streets, people getting raped, people being shot, people getting killed, this is almost a daily basis. I mean, it's hurting our whole community. The whole city, the whole country. This is how I word this: people die every day, but some people gotta live with it. (male, 17)

The description highlights the complexities inherent in cultivating a tough image, especially for adolescents whose character may not fit the stereotyped appearance of those “dressed to kill.” Outward images of “bad” may help protect adolescents who are “soft at heart,” who hope to see people helping each other, not spreading violence. The statement also speaks to the complex desire to project a positive image, not just of the individual, but of the “whole community.”

Family

Soul food is like your regular family. Like the people that be there every day... Food is sumpin' from the family tradition. I mean back to the days when it was slavery and all that. We have a home cooked meal. What we call a real home cooked meal. That's all it is. A home-cooked meal with your family. That's the important thing. You gotta have your family there for having soul food. (male, 17).

In the above quote, food is not defined exclusively by what the food is: meaning is also attached to the familial context in which it is eaten. Food represents an opportunity to connect to your past, both of your race and your family. For the above respondent, family meals are particularly important because he lost his mother to HIV/AIDS. Terming foods “soul foods” hence connects him to something beyond his daily life, to something bigger, perhaps transcendent of his present reality.

Most respondents mention extended family members as their primary caregivers, and not their immediate family such as a mother or father. Those that live with extended family speak of eating home cooked meals at night.

My grandmother be making fried chicken...macaroni...steak...fish...French fries sometimes...or we eat bologna or we eat or we get some juice and then we get to pick any kind of snack we want...like ice cream or apple or orange...after we finish dinner she makes you wait like 15 or 20 minutes so your food can go down and then you choose (female, 12)

Not all the respondents have family who cook meals frequently. Two of the younger girls interviewed mention eating more foods like chicken nuggets, chicken wings, or “Hot Pockets” (frozen sandwich like food), at home.

She (mother) don't cook. It's not much that we come home and we get a dinner. She just don't cook too much. If she do it's a lot of stuff that I don't eat. She cook a lot of stuff that I don't eat. (female, 16).

Healthy foods are not absent from the home environment. Respondents describe the foods in their refrigerator and cabinets to be vegetables like green beans, corn, greens, cabbage, and salad were mentioned along with chicken, oatmeal, grits, turkey, steak, and eggs. In the photo diaries, photos taken of foods at home include a freezer packed with frozen meats and close up photos of frozen lasagna dinners, Hot Pockets, chicken wings, and grilled chicken. Adolescent choice over what is available in the home varies with each respondent. Most of the respondents mention going to the store with their mothers or other family members and exercising some control over what is purchased, but in general, shopping for the home is not the adolescent's exclusive responsibility.

With the exception of one adolescent who mentions that her step-father occasionally cooks, all others mention female members of the household (mothers, aunts, godmothers, or grandmothers) as the primary culinary executor. Independent cooking is surprisingly common among both boys and girls. Respondents mention cooking both for necessity and because they enjoy it, and for one participant, to impress women.

I love cooking, I cook almost every day for myself...I don't care what anybody, a male think. Women love cookers...I found that out just by the reaction, how women act. ...Just seeing a man in the kitchen. It's just something about them being in the kitchen. They love a man that clean, they love a man that cook, man, that's their whole life right there, that's what they be wishing for. I know what every woman be thinking. (male, 17)

Food brought in from outside the home tends to be pizza and chicken wings. In one interview, the adolescent recognizes that foods you “need” were de-emphasized during the meal, and relegated to a side dish, consisting of a smaller portion, in recognition of the fact that a larger portion would not be eaten:

It’s like, usually, we get a lot of what we want, not what we need (at home). Like, if she cookin’ chicken, she’ll cook the majority of the food chicken, and probably macaron[i], and have a little bowl for the greens or whatever, and (smiling) put a little tea spoon (brief laugh-chuckle) on your plate, cause she know you’re not gonna eat it, or whatever. (male, 16)

Generally, adolescents eat by themselves when they got home from school or other after school activities because other family members have already eaten. Respondents mention that when eating alone, they often eat in their rooms, alone at the table, or in front of the television:

...Most of the time, its only, its not enough seats for everybody to eat at the table, so I’ll probably go in the living room and watch TV while I’m eating, me and my cousin, or, and we’ll just sit there, and if we finish eating our plates still be on the chair or something cause we’ll still be sitting there still watching TV. (female, 16)

Meals eaten together with other family members often entail more restricted access to electronic diversions; and mealtimes for some are also times to catch up on the day’s activities and events:

All the electric stuff go off while we eat, like the TV and stuff like that...while we’re eating at the table we might bring up something that happened earlier in the day, just to get a laugh, and, uh, everybody would havin’ just wanna be heard, so they give feedback on whatever the dumb subject was that somebody brought up just to keep the conversation going. And that gets everybody loud and riled up. You might get a laugh or two out of it. There’s usually a conflict about who gonna clean up this; why we gotta clean up that... who did this, who did that. (male, 17)

The tone of the quote above – describing the topics for discussion as “dumb” and “brought up just to keep the conversation going” and “loud and riled up” with “conflict” reveals his contrasting perceptions of the family meal as slightly insipid, yet verbally animated. Family meals are mentioned by a few

during the week, but the most common sit down family meals are on Sundays and holidays, such as Thanksgiving and New Years.

Only one adolescent girl mentions trying to diet, but her family eating habits made it difficult for her to do so. She tried to follow her mother's advice of not eating starches or potatoes, but the rest of the family's eating preferences outweigh her dietary needs:

...my mother likes to buy chips and cakes and cookies, and all that kind of stuff, she likes stuff like that, cause my lil' sister likes, she likes to eat like that, and my stepfather, he eats stuff like that. (female, 16)

In all the interviews, there appears to be respect for family and the home environment. Mothers and grandmothers are mentioned as family members adolescents respect, admire, and enjoy being around.

I worship my mother. Just being a black woman, being a black queen, you might as well say that. Cause that's the only person you can really talk to. And tell her some stuff and she really listens. Cause she done been through the same things you have...I wouldn't be the person I am today if it wasn't for her. (male, 17)

Family members are also seen as friends. One adolescent girl respondent calls her peers "associates" because "they two faced, they betray you, they turn on you, they turn their back and talk about you." The word "friends" is synonymous with "family." However, the family environment is not one without conflicts or disagreements. One respondent describes his family environment as being "conflict" at times during family meals:

...you bump your heads with somebody, you usually have some words with each other... everybody just comin' together at the table, and it's a lot of dark through your house....it's just something they say that start a conflict or something, like bringing up jokes and stuff like that...whether it's by a good way or a bad way, just to get to you, you know. That usually cause conflict, sometimes. (male, 16)

For other adolescents, the home environment is one in which they are required to do chores before moving onto other activities such as going to the

mall. At times, completing household chores takes priority over other activities such as homework and can lead to tension in the household.

...when I get home she get mad if I start my homework before I clean up, she be like, oh that's what you going to do, your homework, or something like, she get upset cause she wants her house clean, when she come home from work she hates to see a dirty house...but she ain't never do it..she want me to do it...my mother fuss a lot...she fuss and I have real soft feelings, and she makes me cry by saying anything. (female, 16)

Days are primarily filled with various activities structured around meals, school, chores, time with friends, and after school activities. As the time away from home during the day is significant, this tended to be the time when adolescents purchased the most food.

Environment-School

Among those adolescents who attend school, their perceptions of the food eaten at school vary. An adolescent boy mentions not minding the food and simply choosing to eat the foods that look good to him. In a focus group discussion, younger adolescents mention school food as cold and that they do not finish the main course. They supplement their meals by buying snacks from the ala carte line. Another respondent feels so strongly about the poor quality of school lunches that she never had her mother fill out an application to receive them free. Her descriptions of the food leave little to be imagined.

...when you look at it make you not want to eat it. I mean, pizza, who doesn't like pizza, cheeseburgers, who don't like cheeseburgers? But when you look at it its like, we, I don't want to eat that!...the nastiest things, they being the peas, they be trying to give you vegetables but they all sloppy and nasty...I hate peas looking all nasty, cabbage looking like somebody spit it out and pit it on your plate...you know how vegetables are supposed to smell good? You now, it don't smell good. It stinks. (female, 16)

Adolescents interviewed at the community center for teens no longer in school do not have lunch offered to them. Instead, they either skip lunch or buy fast food from McDonalds or a Chinese restaurant nearby. One older adolescent

female who is finishing her requirements from a GED school mentions not having a cafeteria at all at her school. Instead, students there go to local corner stores or carryout Chinese restaurants.

Interviews with a fifth grade teacher from a West Baltimore elementary school about his students' snack consumption reveal many of the same food choices as adolescents in East Baltimore. All of Mr. P's students are African American and most receive free breakfast and lunch from the school. School breakfasts include juice boxes (containing only 10% juice), donuts and high sugar cereals with milk. Lunch items are similar to what East Baltimore schools offer. Despite the availability of free foods, "everyday at 11:45, right before lunch, my kids ask me if they can go the corner store to get snacks to eat with their lunch." The students head towards a corner store nearby to purchase candy, flavored chips, "fruities", fruit flavored tootsie rolls, and "rap snacks", small black bags of potato chips with cartoons of current rap artists on the packaging. They often stop at the corner store to get snacks before school begins. He does not know whether the students finish their lunches, but he thinks they either want or need to supplement their meals with other foods, most of which are high in sugar or sodium.

Interviews revealed a rather unexpected outcome of the Baltimore school system deficit, that insufficient funds are not only detrimental to education, but also to student health. Schools have had to be innovative in finding ways to earn money. Thus far, this has meant educators selling snack items such as sugary ice tea and chips to students in an effort to raise funds for activities like the school

graduation. At the above respondent's school, teachers sell ice tea to students for \$.50. He purchased it once but said, "It was so sweet, I couldn't even finish it. It was pure sugar since they just use the mix. But it's a great fundraiser."

In addition to teacher snack carts and corner stores near schools, vending machines are also readily available in the teachers lounge and at the after-school programs. Vending machine purchases at the school are frequent, with almost all interviewees citing at least one purchase per day from vending machines:

...when I get down here to the [Girl Scouts] they have some things in the vending machines or something... I go there but I'm trying to stay away from it because I'm trying to get on my lower diet. (female, 16)

Eating foods from vending machines, in spite of an awareness of the consequences of eating these foods, and a desire to stop, underscores the influence of environmental factors on adolescent eating habits.

Environment- *Neighborhood*

The neighborhoods in East Baltimore where the adolescents reside are, for the most part, run down and economically depressed. Many of the homes are low-income housing projects and boarded house and graffiti are common. There is only one large grocery store, a number of corner stores and large numbers of liquor stores. Drugs, crime, homicides and homelessness and HIV/AIDS are mentioned as issues of concern for some of the adolescents. Some describe their neighborhoods as dirty, violent places lacking security.

Ya, it's definitely a hard life in East Baltimore. Just like, I mean, the community. Drugs, kids gotta grow up around the drug dealers around here, man...Glass on the street. You scared. Just what might happen. Somebody might rob you, soon you go out the house. I mean, that's how it is. I mean, it's a tough life. It's a tough life. East Baltimore is no joke. East, West, South, all around Baltimore, it's not safe. Nowhere. (male, 17)

I don't go outside too much, but there are a lot of vacant houses. You'll see lots of vacant houses. You will see nice looking houses too but not a lot of them. (female, 16)

In contrast, other adolescents described their neighborhoods as interactive communities where people spend time outdoors.

Nothing really extreme really happens, much up... it's real steady. Everybody usually somehow goes outside to go to the store, the basketball court, or sit on the stoop, or walk around for a little bit and catch some air. Sit and conversatin' for a while. (male, 16)

In the summertime that's when there's a lot of people outside, they're running around children with water hoses, running around just everywhere and our block is in the way of the water hose. (female, 16)

Similar to the findings from research conducted in low-income communities cited in the introduction, corner stores, fast food restaurants (such as Burger King, Popeye's, and KFC) are cited as primary places to purchase food in the area. Adolescents frequent the stores alone, or with their peers. One female adolescent mentions "always goin' with someone" to the store, usually with her younger sister.

It's like a corner store where they sell chicken boxes because that's what most of us eat... You can't pick nothing out cause everything's behind the glass... (female, 16)

Observations at a fried chicken chain attest to the rough environment described above.

The store (fried chicken chain) had Plexiglas installed on the counter and our food came out through a rotating Lazy Susan to prevent any contact between us and the staff. A wide variety of customers came to eat and although there was a poster indicating grams of fat and calories for each item offered, no one seemed to take notice of it. The walls had pictures of African American icons like Michael Jordan covered with gold jewelry on his fingers and around his neck, and Martin Luther King speaking at the National Mall. (participant observation)

The presence of Plexiglas barriers in many corner stores and carry-out establishments appears to influence the range of items purchased by adolescents in East Baltimore. One respondent describes how her decisions about what to buy are made before even getting to the store:

You can't pick nothing out 'cause there ain't goin' to be nothing there, everything's behind the glass... I look up, up on the thing, and there's some stuff in there, and I just

look up there, and that's what I want... before I go in the store I already know what I want before I'm going, I'm not going just to go there store and be like, what do I want... I already know what I want (female, 13)

When asked what they felt were the biggest influences on adolescent diet, after school program coordinators point to “what’s around and what’s available.” They emphasize that the availability of fast food restaurants in the area such as Burger King , Kentucky Fried Chicken, Popeyes, and carry out restaurants in the community is the primary factor behind why adolescents eat at these establishments. One coordinator believes that advertising from the “major places” like Burger King, McDonalds, and Wendy’s are responsible for the poor quality of adolescent diet. Advertising and media influence did not come up directly in any of the interviews with adolescents.

Environment -- *Grocery Stores*

Team members visited several grocery stores in the East Baltimore area to note the availability of foods, the quality of fresh produce and to understand more of the adolescents’ physical environments.

Grocery store A has fresh produce and vegetables available, but above the apples, oranges, and bananas are sugary ice pops and sugar filled juice bottles below. The ice-freezies were wrapped in orange, mesh bags similar to the way tangerines are packaged. In the produce section surrounding the water display were bags of cotton candy. Only small pints of skim milk available. There were copious quantities of older meat and an assortment of pig body parts were for sale. The cheapest were the pig intestines and pigs feet (only \$.67/pound). (participant observations)

While produce was surrounded by sugary snacks, it was available, and appeared fresh, and fairly priced. In other grocery stores, purchasing fresh produce did not seem to be an option:

Grocery store B does not stock skim milk... The only milk in the case is gallon jugs of whole milk. About half of the case is taken up with pork products: pigs’ feet (4 for \$2.97), pig’s ears, pigtails, and pork chops. They seem to carry the cheapest cuts, and the only ground beef available is chuck... I didn’t see any fish, but there are packages of

chicken and turkey drumsticks. I look around for fresh produce but don't see any except a few green bananas. (participant observations)

Several adolescents make note of the horse-drawn carts that ply Baltimore streets in most neighborhoods, selling fruits and vegetables – and these carts appear to provide at least an occasional supplemental source of vegetables, in addition to the produce available at supermarkets.

Observations of food purchasing also take place at a nearby shopping mall that “do not have a food court, but rather a collection of fast food restaurants ...two liquor stores, two money cashing places, a Korean run convenience store, and a Rite Aid.” (observation) At the mall, adolescents do a significant amount of food purchasing at the fast food restaurant chains which have limited selections of “healthier,” and often more expensive, options,. In carry out stores and fast food restaurants, salads are available, but do not appear to be food choices.

DISCUSSION

This paper presents the results of formative research conducted to understand the predominant influences on African American adolescent diet in East Baltimore. Through in-depth interviews, participant observations, focus groups, and the photo diary exercise we explore adolescent eating habits, definitions of healthy, and environmental and familial influences on food their choices. Through formative research, we identify new terminologies to categorize foods and possibly more effective ways for targeting adolescents through nutritional interventions. We conclude that adolescent diet in the East Baltimore community is largely shaped by what is available, convenient, and affordable. We find that while adolescents are able to exercise some choice in deciding what

to eat and when, their decisions are influenced by conditions outside of their control. Factors limiting their control over food intake are two-fold: decisions of what to buy are almost entirely shaped by what is available in the community; and decisions of when and why to buy food are tied to their perceptions of the foods available in environments, like school and the home, as either “nasty” or not enough. How adolescents articulate deeper meanings in home-based meals, and the connections with soul, history, and slavery, provides a more specific context for the central role of family in shaping adolescent eating habits.

An executive director of an East Baltimore community action center ascribes the breakdown of the family in low income African American households to a “disproportionate amount of time dedicated to economic activities.” When parents do come home, unlike in more affluent communities, their time is dedicated to how they can cover daily expenses, not spending time with their children. He terms this as the “stress of poverty” and sees a direct connection between stress and food choices. In conditions of poverty, there is “no time or emotional strength to plan, budget, and cook meals” and easy “unhealthy choices are present” in the community. He stresses that adolescents place so much importance on “home foods” and family meals because it is “not what they get” and may represent the little amount of time they are able to spend with their families.

All community leaders interviewed articulated a view consistent with the concept that parents provide children with money to buy food in order to get them “off their back,” and “out of the house.” It is easier for them to give money to the

adolescents than take the time to budget, shop, and prepare a home-cooked meal. The respondents' focus in the interview on home cooked meals and family time may be a product of their desire to have more of each in their lives. Interviews with respondents touch on the harshness of life where they live, but do not focus overmuch on the day-to-day struggles for economic survival in their families.

Our research has some limitations. Due to the relatively small number of in depth interviews, it is difficult to assess if the information learned is generalizable to the larger adolescent East Baltimore community. Furthermore, with the exception of two of the interviewees, all of the adolescents are involved in after school programs, which might distinguish them from other adolescents not involved in extra curricular activities. In addition, the administrator at the job training center initially selected two young men for us to interview based on their reliability, pleasantness, and ability to bring back the parental (or guardian) consent form. His selection of the most "reliable", "hardworking", and "pleasant" (not rude) informants probably affects the type of information we collected. It is also possible that the informants are more likely tell us what they thought was the "right" answer that we wanted to hear. They also may be more educated or motivated with respect to healthy diet than some of their peers. A third limitation is that only one of the adolescents interviewed could be described as overweight, and to our knowledge none has diabetes. Our respondents are physically active in after school activities, such as basketball and dance. It is likely that interviewing adolescents who are overweight, or who have diabetes, may yield conclusions. Little is known about adolescent perceptions of their weight status, their

knowledge of, or attitudes towards, the increasing rates of obesity amongst their peers; nor how they are integrating this information into decisions of what to eat. Additional research on perceptions of the causes of diabetes among adolescents would be useful in these communities, given the high prevalence rates.

Bloor (2001) argues that “all research findings are shaped by the circumstances of their production.” The “circumstances of the production” of this research included the composition of the research team, whose members have little connection racially, or culturally, to the East Baltimore community. In addition, affiliating ourselves with Johns Hopkins likely informed the tenor of the interview. Despite its central role in the city as an employer,¹⁹ community members living near the university voice discontent with the institution. Recent qualitative research with East Baltimore community members on their perceptions of research conducted by representatives from Johns Hopkins reveals a general distrust of people prefer not to be used for experiments:

If you know what for sure is gonna work, don't use me, I'm not the guinea pig, that's what I'm saying, that's just my opinion, that's how I feel.

If a lot of people doing the research would come back and talk to people again, it would be a whole lot different subject. A lot of people just come, say to take a survey and you never see them again.

It is likely that these community perceptions of Johns Hopkins research shapes informant responses; but this does not discredit our findings. In fact, none of the adolescents interviewed expresses concerns about us being from Hopkins.

However, only a small proportion of Parental Consent forms were returned. The role of the Hopkins myth in their decision to sign is not known. It is possible, however, that adolescents are more likely to explain things to us as outsiders, than

to members of their own community, who might be assumed to already be familiar with terms and conditions from their lives.

In attempt to verify the “truth” of the respondent’s accounts, we triangulate the data by conducting focus groups, participant observations, and member checks with organizational directors. Our observations in malls, corner stores, fast food restaurants, and grocery stores are valuable in assessing the truth of the adolescent’s accounts. In her editorial in *Qualitative Health Research, Perspectives of the Observer and the Observed*, Janice Morse (2003) comments that “observational methods reveal much that the individual cannot and may not know or they consider too trivial or extraneous to discuss, and can provide the most significant clues to fitting the puzzle together or driving the research agenda” (Morse 2003). For example, our observation that there are healthy foods available in the carry out restaurants and fast food chains, in addition to cheap, healthy food options in the grocery stores, reinforces our belief that the factors shaping adolescent diet are more complex than simply what is available.

IMPLICATIONS

The credibility of the research project in the East Baltimore community is strengthened by the fact that research was conducted as part of an intervention program. One community leader in an initial conversation said he is happy Hopkins was “actually going to do something” with our research. As noted above, research for research sake is negatively viewed within the community; and the ability to link research with action made collaborating with community leaders easier and beneficial to both the research team and the community

organizations. Formative research conducted will be incorporated into an intervention in Baltimore, but the research findings may additionally have implications for other communities.

Numerous interventions have been attempted to improve diet and food choices among adolescents, to varying success. Most interventions targeted to children and teens have been school-based. Interventions have been attempted that decreased fat in available school lunches with varying success. In our research, however, fat content of the food *per se* was generally not associated with food purchasing; but rather, the lower desirability of “nasty”, or “gross” foods, which may or may not have lower fat content. That is, food could be equally as “nasty” if they were too greasy, or simply too raw (as a vegetable). “Nasty” food options appear to be associated with purchasing unhealthy snacks. Therefore, by decreasing the “nasty” and “gross” factor, it is possible that adolescents would eat school lunch and be less likely to purchase additional snacks. Unfortunately, the Baltimore City school system is facing yet another fiscal deficit for the 2004-2005 school year. Further research to identify how other schools within the system are dealing with the crisis could provide insight on programs to improve school nutrition.

Nutrition interventions at point-of-purchase have been investigated, although there is little data on adolescents specifically. In our findings, it appears that interventions in corner stores may be worthwhile, but should be combined with other efforts because adolescents generally already know what they want before they even get there. Corner stores in Baltimore often have physical

barriers (Plexiglas, or metal bars) separating consumers from food, and staff. Social distance may also be increased by the divergent ethnicities, and language barriers, of adolescents and corner store staff; although adolescents appear to have positive relationships with other staff. Interventions designed for corner stores in East Baltimore should acknowledge the potential influence of these inter-personal relationships, and should not approach the corner store as a monolithic environment for food purchasing.

The macro-level influences on adolescent diet, such as the poverty of their communities and households should not be ignored as overarching factors influencing adolescent food choice. In designing community based interventions, they must be taken into account and factored into program design. For example, it is critical that programs focus on the benefit they hold for those who participate. Community leaders stress that an intervention must “draw people out of their poverty” and offer an “immediate benefit.” They also emphasize the need to do more to engage adolescents in activities to help them understand the consequences to unhealthy eating and make the connection between disease later in life and what you eat now. However, this should be done in tandem with a program targeting more immediate benefits such as personal appearance and more energy to play sports, and dance.

RECOMMENDATIONS

Based on documented experiences of other projects and our formative research findings, we recommend the following as guiding principles for the Healthy Stores Project intervention:

- Follow the advice of East Baltimore residents and share information learned with community members. Use this as a forum to discuss with parents and adolescents how they would like to move forward.
- Focus on the key benefit for adolescents to eat healthy foods. The clearer the objective, the more likely they are to buy into the program goals.
- Emphasize the economic benefits to healthy eating and cooking. One approach to this would be to provide economic incentives such as free healthy food choices for participating in project activities. This will promote healthy food options and can also serve as a way to familiarize people with low cost healthy alternatives already available in their supermarkets.
- Design education programs to be interactive, hands-on, and fun. It is crucial that teens “see” the consequences to eating unhealthy foods and participate fully in all discussions and activities.
- Make information for adolescents accessible, interesting, and in terms they understand. For example, terms such as “junk food”, “nasty” and “greasy” were more often used to describe foods than “unhealthy” per se, suggesting that the abstract categories of “healthy vs. unhealthy” foods

may not be the best way to communicate better food choices to these teens.

- Conduct further research on concepts of healthy foods and body types further understand how these shape adolescent eating habits.
- Incorporate immediate and extended family members. Adolescent choices are significantly shaped by what their families cook and the money they allocate to them for food purchasing. For example cooking classes with caregivers by a chef specializing in healthy soul food (i.e. fried chicken, macaroni and cheese, greens) while also offering caregivers a bag of the same foods they just learned how to cook to take home.

Tables and Figures:

Table 1:

	Soul Food		Not Soul Food
Clean Food	Turkey Chicken Seafood Water Corn Peas Green pepper Lettuce Tomatoes Lake trout Broccoli	Carrots Colon pills Vegetables Apples Fruits Orange Citrus Green peas Garlic Greens	Platter Turkey sub Chicken sub
Not Clean Food	Curry Pepsi Coca cola Soda Kool-aid Chicken salad Turkey salad Alfredo sauce Noodles Mashed potatoes Barbeques Turkey burger	Mozzarella cheese Turkey gumbo Shrimp gumbo Lobster tails Fish Turkey Alfredo Potatoes Spicy Gravy Mashed potatoes Potato salad Macaroni salad	Candy Energy pills Goat Coffee Giggly meat Chitlins Grease Ham Jalapeno Pork burger Fatty foods Cheese steak Pizza Beef Pork

Results of pile sort activity with 17 year old male.

Table 2

<u>Home Foods</u>		<u>Store Foods</u>
Hot dogs	Noodles	Cake
Chicken nuggets	Beef Stew	M&M
Bologna	Milk	Baby Ruth
Apples	Eggs	Cookies
Oranges	Cheese Crackers	Ice Cream
Bacon	Lunch meat	Jolly Ranchers
Fried Fish	String Beans	McFlurries
Sloppy Joes	Pizza	Reeses
Steak		Bubble gum
Juice		
Corn		
Peas		
Broccoli		

Results of pile sort activity with 12 year old female.

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