

How Well Do Parents Assess Their Children's Diet?

Results from the New Jersey Child Health Study.

By

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ABSTRACT

Objective: Parents play a critical role in their child's diets, yet there is lack of research in the US comparing parental perception of their child's diet with quantitatively assessed diet quality. We examined the association between parent perception of their child's overall diet and the child's diet quality, as measured by frequency of consumption of key food categories.

Methods: Secondary analysis was conducted using data from two independent cross-sectional panels of surveys with parents of a 3-18 year old child. Data collection took place in 2009-2010 and 2014, the random sample was drawn from low-income cities. Well-established survey questions assessed parental perception of their child's diet and frequency of consumption of fruits, vegetables, sugar-sweetened beverages (SSB), fast food and unhealthy snacks. Diet quality scores were calculated for each child, with higher scores reflective of healthier diets (max score= 40). Ordered logistic regressions examined associations between parental perception and consumption of food categories. Multinomial logistic regressions examined associations between levels of concordance in parent perception and diet scores by demographic sub-groups.

Results: Almost half of children were non-Hispanic black (46%) and 40% were Hispanic. Overall 52% of parents strongly agreed, 33% somewhat agreed, 10% somewhat disagreed, and 4% strongly disagreed that their child eats a healthy diet. The mean diet quality score for the sample was 20.58 ± 6.7 . Children from our sample with the unhealthiest diet had a mean frequency of fruit intake = 0.8 times/day and SSBs = 2.2 times/day. Children with the healthiest diet had a mean consumption of fruit=1.7/day and

SSBs= 0.4/day. Parental perception of their child's diet was significantly higher when their child consumed more fruit ($p<0.001$) and vegetables ($p<0.001$) and lower when their child consumed more fast food ($p<0.001$), SSBs ($p=0.01$) and unhealthy snacks ($p=0.02$). Over half of parents overestimated the healthfulness of their child's diet (61%). Parent, child and household demographics did not moderate this association.

Conclusions: Although parental perceptions that their child eats healthy are associated when their child eats more healthy foods and less unhealthy foods, parents' perceptions still do not align with their child's diet.

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CHAPTER 1

INTRODUCTION

Every five years the United States Department of Agriculture (USDA) and the United States Department of Health and Human Services (DHHS) prepare the Dietary Guidelines for Americans (DGAs) based on current scientific evidence (U.S. Department of Health and Human Services and U.S. Department of Agriculture {USDA}, 2015). The most recent guidelines, the 2015 DGAs, affirmed that nutrient-dense diets are those that include a variety of food groups from fruits, vegetables, whole grains, legumes, seafood and nuts and limit consumption of red and processed meats, sugar-sweetened beverages, and refined grains.

Overall, children and adolescents in the United States do not meet recommendations set out in dietary guidance; and children from certain socio-demographic groups are particularly at risk of lower diet quality (Banfield et al., 2016; Gu & Tucker, 2017). Data from the National Health and Nutrition Examination Survey (NHANES) shows that even though they do not meet the DGAs, children between 4-8 years of age consume more fruit, whole fruit, dairy and whole grains compared to older children (9-18 years old) (Banfield et al., 2016). Non-Hispanic black and Hispanic children have a higher consumption of unhealthy foods compared to non-Hispanic white children (de Hoog et al., 2014). While diets of all children in the U.S. have changed over time (between 1999 to 2012), children from higher income households saw a greater improvement in diets compared to children from middle- and low-income households (Gu & Tucker, 2017).

The Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) are two of the largest U.S. nutrition assistance programs designed to help low-income households eat healthy (USDA, 2018). Children from low-income households that participate in WIC have a higher diet quality compared to children from income eligible non-participant households (Gu & Tucker, 2017). However, this is not the case for children from SNAP participating households. Research shows that children and adolescents from SNAP households either have a similar diet quality (Andreyeva et al., 2015) or a lower diet quality compared to income eligible non-participants (Leung et al., 2017).

A variety of measures are used for assessing children's diet quality. The Healthy Eating Index (HEI) is a commonly used measure and its latest version, the HEI-2015, is designed to align with the 2015-2020 DGAs (National Cancer Institute, 2018). The HEI-2015 has 13 measured categories and the overall score is out of 100.

Another measure of dietary quality is dietary energy density (DED). DED is a ratio of the energy intake in kilocalories or kilojoules to the actual food weight in grams (Fernando et al., 2018). The DED can be influenced by water content and also macronutrients; foods high in macronutrients like fat or carbohydrates tend to lead to a higher energy-dense diet. However, foods with a high-water content such as vegetables tend to make up a low energy-dense diet.

Energy intake and nutrient intake are also used to assess diet quality. Energy intake measures the calories consumed and compares that to the recommended amount depending on age, sex, height, weight and physical activity level (USDA, 2015). Nutrient intake is often compared to Dietary Reference Intakes (DRIs) which include:

Recommended Dietary Allowance (RDA), Adequate Intake (AI), and Tolerable Upper Intake Level (UL) (National Institutes of Health, 2018).

While these methods are strong measures of diet quality, it is not always feasible to obtain children's detailed dietary consumption to make such assessments. An alternative is to examine the consumption of targeted energy and nutrient-dense foods and beverages to assess diet quality (Barlow & the Expert Committee, 2007). These food categories are selected based on their association with overall diet quality and health outcomes. High energy-dense foods such as sugar-sweetened beverages, pizza, high fat milk, breads, desserts, pasta and savory snacks were major sources of energy intake among U.S. children between the years 1989-2010 (Slining et al., 2013).

Consumption of energy-dense foods can lead to excessive calorie consumption among children, which can lead to unhealthy changes in weight status (USDA, 2015). A nutrient-dense diet for children includes consumption of fruits, vegetables, nuts, whole grains, legumes and seafood and can result in a lower energy intake. The recommended nutrient-dense diets promote healthy eating patterns for children and adults. These patterns are associated with a reduced risk for type 2 diabetes, overweight and obesity for all ages.

Improving children's diets require interventions in multiple settings including homes and schools. Parents play a large role in influencing their children's diet quality (Wansink, 2006). Researchers have argued that improving children's diets is dependent on parental perception and a parent must recognize when their children's diet is poor or needs changes (Adamo, 2014). Several variables contribute to parents' beliefs of their child's diets. In a racially diverse, low-income sample, mothers viewed their own

children's diet quality healthier than their own (Dammann et al., 2011). A 2017 cross-sectional analysis found similar results, but additionally, the mothers' perception of their children consuming a healthy diet was associated with more maternal education (Broilo et al., 2017). Statistical path analysis testing has shown that parental education and household income are two predictors of parents' perception of healthy eating for their children (Adamo et al., 2010).

Kourlaba and colleagues published the only known cross-sectional analysis comparing parental perception to the healthfulness of their child's diet with the Healthy Eating Index (HEI), a quantitatively measured indicator of diet quality (Kourlaba et al. 2009). The study was conducted in Greece. The authors argued that measuring parental perception of children's diet quality is important because the parent regulates the child's eating behaviors. In their study, 83% of mothers overestimated their preschoolers diet quality, while almost all of the children had a diet that needed improvement or was poor. There were no significant associations found between overestimation and socio-demographics.

There is lack of research in the U.S. comparing children's quantitatively measured diet quality with parental perception. The proposed study aims to fill this gap and examine how parents perceive their children's diet quality in comparison to the reported intake of energy-dense and nutrient-dense foods and also investigates if parent and child level socio-demographic factors and participation in nutrition assistance programs moderate these associations.

Research Questions and Hypotheses

The present study will address the following research questions and associated hypotheses.

1. *Is the parental perception of the child's diet quality dependent on the reported intake of nutrient-dense or energy-dense foods? How does this dependence differ by socio-demographics?*

Hypothesis 1.1: Parent's perception that their child eats healthy (i.e. Strongly Agree on the perception scale) will be associated with a higher reported frequency of consuming nutrient-dense foods.

Hypothesis 1.2: Parent's perception that their child eats healthy (i.e. Strongly Agree on the perception scale) will be associated with a lower reported frequency of consuming energy-dense foods.

Hypothesis 1.3: Parent's perception that their child eats a healthy diet will be associated with the child's overall diet quality score.

Hypothesis 1.4: Parent's perception that their child eats healthy will be associated with different parent, child and household demographics.

2. *What is the concordance between parental perception of their child's diet quality and the reported intake of energy-dense and nutrient-dense foods? How does this differ by parent, child and household characteristics?*

Hypothesis 2.1: Overall, parental perception of their children's diet quality will not be concordant with the reported intake of energy-dense and nutrient-dense foods.

Hypothesis 2.2: Parents with lower education and those from lower income households are more likely to have a perception of their child's diet that is discordant with their child's diet quality compared to parents from higher education and higher income households.

Hypothesis 2.3: Non-Hispanic black, Hispanic and white parents are likely to have a discordant perception of their child's diet quality compared to having a concordant perception.

Hypothesis 2.4: Parents of older children are more likely to have a perception of their child's diet quality that is discordant with their child's diet intake compared to parents of younger children.

Hypothesis 2.5: Parents of female and male children will have an overall similar discordance of their children's diet quality.

3. *Does concordance between the parental perception of their child's diet quality and the child's actual dietary intake vary by household WIC participation status?*

Hypothesis 3.1: Parents from WIC participating households are more likely to have perceptions of their child's diet quality that are concordant with their child's diet compared to income eligible parents from non-WIC households.

4. *Does concordance between the parental perception of their child's diet quality and the child's actual dietary intake vary by household SNAP participation status?*

Hypothesis 4.1: Parents from both SNAP households and parents from non-participating SNAP households are likely to have similar discordant perceptions of their child's diet quality.

Definitions of Terms

Parental Perception: Parent's level of agreement to the statement, "In general my child eats healthy".

Child's Overall Diet Quality: The overall healthfulness of the child's diet.

Concordance: Does parental perception match the child's overall diet quality? Parental perception can be discordant through overestimating or underestimating the healthfulness of the child's diet quality.

CHAPTER 2

LITERATURE REVIEW

Dietary Guidelines for Americans

Every five years, an updated version of the Dietary Guidelines for Americans (DGAs) is published to promote health and prevent disease among United States (U.S.) adults and children through healthful eating (U.S. Department of Health and Human Services and U.S. Department of Agriculture {USDA}, 2015). The U.S. Department of Health and Human Services (HHS) and Department of Agriculture (USDA) collectively publish these guidelines that are based on most recent evidence. The DGAs are designed to encourage individuals, households, schools, and communities to incorporate healthy diets, while acknowledging cultural and personal preferences. The DGAs utilize the MyPlate guide (previously used MyPyramid) to convey healthy eating messages through interactive reminders for adults and children and is commonly depicted by a place setting with five food groups: fruits, vegetables, grains, protein and dairy.

Child Dietary Recommendations

The 2015-2020 DGAs promote a nutrient-dense diet rich in the following food groups: vegetables, fruits, grains, dairy and protein (USDA, 2015). Recommendations for different food groups are specific to children's caloric needs, their age and sex. For example, children ages 2-8 would likely follow a daily caloric intake of 1000- 1400 kcal/day and children 9 or older would follow a daily caloric intake of 1600 kcal/day or more. In addition, daily consumption of key food groups follow Dietary Reference Intakes (DRI), which include Recommended Dietary Allowances (RDA) for macronutrients, minerals and vitamins. Serving portions of food groups are listed within

the most recent DGAs. Children consuming 1000-1400 kcal/day would need to consume 1 to 1.5 cups of vegetables, 1 to 1.5 cups of fruit, 3 to 5 oz of grains, 2 to 2.5 cups of dairy and 2 to 4 oz of protein to meet the DGAs. Children 9 and older following a 1600-2000 caloric diet would need to consume 2 to 2.5 cups of vegetables, 1.5 to 2 cups of fruit, 5 to 6 oz of grains, no more than 3 cups dairy, and no more than 5 oz of protein to meet the recommendations. The DGAs acknowledge that excessive calories from saturated fats and sugars are not optimal for children's health; as a result, it is recommended that children should limit their consumption of added sugars and saturated fats to less than 10% of calories per day for all ages. Adults and children are also advised to limit trans-fat, dietary cholesterol, and sodium.

Health Implications of Consuming Energy-Dense or Nutrient-Dense Foods

Poor diet quality from excessive consumption of unhealthy foods and beverages has been associated with a number of preventable diseases such as cardiovascular disease, high blood pressure, and type 2 diabetes in adults and children (Mellendick et al. 2018; Micha et al. 2017).

Micha and colleagues utilized NHANES 1999-2002 and 2009-2012 data to run a comparative risk assessment model and examined associations between specific foods and cardiometabolic mortality (heart disease, stroke and type-2 diabetes) (Micha et al. 2017). Within the sample (n=16,620), dietary factors were associated with nearly 1 in two of the estimated cardiometabolic deaths. For adults aged 25-64 years, excess SSBs and processed meats were the top estimated diet factors that were associated with cardiometabolic mortality.

Epidemiological studies show that adult's food behavior and nutritional choices can be influenced by their childhood diet. The Cardiovascular Risk in Young Finns Study (prospective cohort study) followed children 3-18 years from 1980-2001 and examined cardiovascular risk factors and diet (Mikkila et al. 2005). Results showed two patterns of diets (healthier and unhealthier diets) and 38-41% of adolescents gravitated toward having the same diet 21 years later.

The recent 15-year longitudinal study-Project Eat measured 1177 adolescent's dietary intake of 4 of the key MyPlate food groups (fruit, vegetables, whole grains and dairy) and then measured again twice during young adulthood (Christoph et al, 2019). Unhealthy dietary consumption was not measured. Results showed that adolescents in the lower quartiles of consumption for these healthy foods generally continued to have lower intakes into adulthood.

When children consume nutrient-dense foods, their disease risks can be reduced. Yang and colleagues recruited 18,757 adolescents between 13-17 years old in different provinces of China to examine the associations between blood pressure and vegetable intake (Yang, 2018). Adolescents who consumed 3 or more servings of vegetables (three adult closed fists worth) had a significantly lower risk of high blood pressure compared to children who consumed 1 or fewer servings of vegetables. Using a small convenience sample of 163 adolescents, a 2018 study examined associations between diet quality and cardiovascular disease (CVD) risk factors including: body mass index, systolic and diastolic blood pressure and total cholesterol (Mellendick et al. 2018). Adolescent's fruit intake was negatively related to body mass index (BMI) and diastolic blood pressure. Total vegetable intake was negatively related to systolic blood pressure. Sugar-sweetened

beverage was shown to be higher for obese adolescents and also positively related to total cholesterol.

Measuring Diet Quality

A variety of methods are used for assessing diet quality. This section describes some commonly used measures for assessing children's diet qualities: Healthy Eating Index, Dietary Energy Density, total energy intake, intake of specific nutrients and consumption of specific nutrient-dense and energy-dense food groups.

Healthy Eating Index

The Healthy Eating Index (HEI) is a tool used to measure adherence to the DGAs, determine overall diet quality, and score individual dietary components such as fruit or total protein foods (National Cancer Institute, 2018). A score of 100 represents a perfect score. HEI has been found to be a reliable and valid measurement of diet quality (Guenther et al. 2014; Reedy et al. 2018). The most recent HEI 2015 has 13 dietary components (compared to 12 in HEI-2010) that include: total fruits, whole fruits, total vegetables, greens and beans, whole grains, dairy, total protein foods, seafood and plant proteins, fatty acids, refined grains, sodium, added sugars, saturated fats (National Cancer Institute, 2018). The reason that the HEI-2015 has one additional category is because added sugars and saturated fats were separated from the previous 2010 "empty calorie" category (Krebs-Smith et al., 2018). HEI is used in a variety of settings; for example, Kourlaba and colleagues' used the HEI to measure children's diet quality and compare to maternal perceptions (Kourlaba et al., 2009). Extensive weighed food records, 24 hour recall, and food diaries were all used to collect data on the child's consumption and then HEI was calculated for each child (n=1759) (Kourlaba et al., 2009).

Although HEI is a strong measure of assessing diet quality, it requires extensive and resource intensive data collection, that is often not feasible in large community based studies.

Dietary Energy Density

Dietary energy density (DED) is another strong method for measuring diet quality. The DED calculates the energy intake in kilocalories/kilojoules per gram of food (USDA, 2012). Foods high in water or fiber (fruits & vegetables) tend to be lower in energy density (USDA, 2012). A 2013 study examined relationships between DED and the nutritional quality for children and teens' diets using data from Irish National Food Surveys (O'Connor, 2013). Seven-day food diaries were used to collect the children and teens food intake and the DED score was calculated for food and it excluded beverage intake. Results showed that children with lower DED scores consumed more food weight compared to energy intake, but also less fat and added sugars. Lower DED scores were found to represent a diet that adhered more closely with dietary recommendations and therefore, authors concluded that DED scores can reflect a child's diet quality.

Energy Intake

The term 'calorie' or 'kcal' is a measure of energy intake. The number of calories a person needs depends on several factors such as age, sex, height, weight, physical activity level and also if they need to lose or to gain weight (USDA, 2015). Measuring energy intake is utilized to examine if an individual or population is adhering to recommended calories per day.

The Continuing Survey of Food Intakes by Individuals Survey (CSFII) and the National Health and Nutrition Examination Survey (NHANES) have been used to

examine children's energy intake over time through the use of 24-hour recalls. For instance, Slining and colleagues used CSFII and NHANES to describe 21-year trends (1989-2010) in children's total energy intake and what major foods and beverages were the sources of this intake (Slining et al. 2013).

Nutrient Intake

Measuring consumption of nutrients as a predictor of diet quality is another commonly used method. DRIs establish the amounts of macronutrients and micronutrients an individual should consume and is based on several factors such as age, sex and life stage of an individual (USDA, 2015). The Centers for Disease Control and Prevention (CDC) suggest that deficiencies in nutrients (micronutrients) such as iron, vitamin A, iodine, folate and zinc can have several consequences and that worldwide, half of children up to 5 years suffer from some micronutrient deficiency (CDC, 2018).

Consumption of Energy and Nutrient Dense Foods and Beverages

A number of public health organizations recommend limiting intake of energy-dense foods and increasing consumption of nutrient-dense foods including fruits and vegetables (Barlow & the Expert Committee, 2007). Fruit and vegetables are promoted for their ability to manage weight, provide key nutrients and reduce risk of several chronic diseases (CDC, 2011). Therefore, measurements of children's fruit, vegetable and unhealthy food (SSBs and energy-dense snacks) intake are critical to survey in order to monitor children's diet quality. In 2014, CDC used NHANES data to examine 12,459 children's (2-18 years) fruit and vegetable intake between 2003-2010 (Kim et al. 2014). Trained interviewers conducted 24-hour recalls and reported the children's single and multi-ingredient meals. These foods were separated into their food components and then

assigned cup-equivalents per 1000 calories (CEPC) using USDA guides such as MyPyramid.

Child Dietary Quality Evidence

An examination of children's fruit and vegetable intake using NHANES data between 2003-2010 showed that total fruit intake increased by 3% from the base year, but total vegetable intake did not increase (Kim et al. 2014). Interestingly, white potatoes made up 30% of the total vegetables of the studied years and were consumed mostly as fried or as potato chips. NHANES and CSFII surveys from 1989-2010 have shown large contributors of U.S. children (2-18 years) total energy intake have been SSBs, pizza, high fat milk, grain-based desserts, breads, pasta dishes and savory snacks (Slining et al. 2013). The following sections will examine child dietary evidence by parent, child and household demographics.

Children's Age

A 2014 review examined NHANES and the School Nutrition Dietary Assessment Study (SNDA) to compare 2-11 year old children's dietary deficiencies with the DGAs (Hess & Slavin, 2014). Children ages 2-5 consumed almost 1.5 cups of fruit and DGA recommended intake was 1- 1.5 cups per day. Children ages 9-13 consumed less than 1.5 cups of fruit per day when the recommended intake for their age group is 1.5 cups. All of the children examined consumed less than 1 cup of vegetables which is below the recommended intake. Additionally, all children consumed less than 1 oz of whole grains and the recommended intake ranges from 1.5- 3 oz depending on age.

Banfield and colleagues used NHANES 2005-2010 data and examined HEI scores among children 4-18 years (n=8390) (Banfield et al., 2016). Children within the 4-

8 age group had a statistically significantly higher mean HEI of 52.11 compared to the other two age groups; the 9-13-age group had a mean HEI 46.85 and adolescents 14-18 years had a mean HEI 43.59. When examining HEI component scores, older age groups had lower consumptions of fruit, dairy and whole grains compared to the youngest age group (4-8).

Similar results were seen through a more recent analysis using NHANES data from 1999-2012 (n=38,487) (Gu & Tucker, 2017). Data showed that children in the 2-5 age group had a mean HEI of 55.3, children between the 6-11 age group had a mean HEI of 51.2 and children in the 12-18 age group had a mean HEI of 48.4.

Sex of the Child

Rosinger and colleagues published a report using NHANES 2011-2014 data examining SSB consumption among children 2-19 years (Rosinger et al., 2017). Overall, children consumed an average of 143 kcals from SSBs per day. However, boys 6-19 years consumed significantly more calories from SSBs compared to girls. Boys aged 2-5 consumed more calories from SSBs compared to girls, but this was not statistically significant. Interestingly, HEI measurements for male and female children are not as different from each other like consumption of SSBs (Gu and Tucker, 2017). Gu and Tucker's analysis showed HEI scores increased from 1999 to 2012 and remained similar among male (41.8 to 50.3) and female (43.2 to 51.6) children.

Ethnicity/Race

Evidence points to non-Hispanic black children having the lowest diet quality as measured by HEI scores and excess energy intake. Gu and Tucker found that Mexican-American children had higher HEI scores across the years 1999-2012 compared to white

and non-Hispanic black children (Gu & Tucker, 2017). Results from studies using 1977-2014 national data (n=49,952) have shown that non-Hispanic black children compared to children from other races have seen the largest increase in per capita energy intake from snack foods over a 37-year period (Dunford & Popkin, 2018). Additionally, while SSB consumption decreased overall for children, it increased for non-Hispanic black children (Dunford & Popkin, 2018).

African American and Hispanic children from low income households have shown similar trends (Salvo et al. 2012). Although this particular study included a smaller sample (n=105) and only included children ages 1-5, results showed that African American children had a significantly higher energy intake per day compared to Hispanic children. On the other hand, Hispanic children consumed significantly more fruits compared to African American children.

Although results seem consistent that non-Hispanic black children have lower diet qualities compared to white and Hispanic children, one study (n=898) found that Hispanic and non-Hispanic black children have similar consumption of unhealthy foods (de Hoog et al., 2014). De Hoog and colleagues measured 3 year old children's diet quality through the reported frequency of consumption of food groups and found that non-Hispanic black and Hispanic children both had a higher intake of sugar-sweetened beverages and fast food compared to non-Hispanic white children. Additionally, Hispanic children had the highest energy intake compared to white and non-Hispanic black children. Certainly, this study is limited in its sample size compared to Gu and Tuckers NHANES study and also Dunford and Popkin's 2018 analysis.

CSFII and NHANES data have also shown interesting trends over time for Mexican American children. Slining and colleagues found that between 1989-2004 there was a significant increase in energy intake for Mexican American children, children from low-income and younger children ages 2-5 years (Slining et al., 2013). However, between 2003-2010, energy intake decreased and plateaued for Mexican American children, while younger children and children from low-income households did not decrease their energy intake.

Martin and colleagues examined how SES influences Mexican-origin children and their diet quality (Martin et al. 2015). Using HEI, it was found that within Mexican-origin families, greater SES is associated with healthier diets across generations of children. Authors argue that “high-status” Mexican-origin parents may act as a buffer in their children’s diets when they discuss acculturation.

Parental Socio-Economic Status

Children from households under the 130% poverty income ratio (low-income), saw a significant increase in energy intake from 1989 to 2010 compared to children from the middle and higher income households (Slining et al., 2013). Within this time period, total energy intakes for most U.S. children began to decline after 2004 and moved closer to 1989 energy intake ranges; however, children from low-income households had energy intakes that did not decline.

Dunford and Popkin described trends of energy intake among different income groups using a larger time frame (37 years) compared to Slining and colleague’s analysis (21 years), but still found similar results (Dunford & Popkin, 2018). Although all income groups showed some increases in energy intake over the 37 years, the largest increase in

per capita energy intake from snack foods was seen in children from households below the 185% FPL with more than a 100% increase in calories from snacks from 1977-2014.

HEI scores showed similar changes in children's diets over a 14-year time period. Children from higher income households saw greater HEI scores compared to children from low- and middle-income households (Gu & Tucker, 2017). Children from the lower income households saw a 18.2% increase, middle income saw a 19.2% increase and higher income saw a 23.8% increase in their HEI scores between 1999-2012.

Comparing children's consumption based on household education yields results similar to those observed when examining differences by SES. Children from households where the parent had less than a high school education saw a greater increase in energy intake compared to children from households with a high school education or households with some college education (Slining et al., 2013). Recent studies also show that households with higher education are associated with children consuming healthier diets and conversely, households with lower education are associated children consuming unhealthy diets (Emmett et al. 2015; Lioret et al. 2015; SanGiovanni et al. 2018; van der Velde et al. 2017).

The Supplemental Nutrition Assistance Program

The Supplemental Nutrition Assistance Program (SNAP) offers nutrition assistance to low-income individuals and households to help them purchase and consume healthy meals (USDA, 2018). The USDA reported that in Fiscal year 2017, 42.1 million Americans participated in SNAP where 44% of participants were under age 18. In order to qualify for SNAP assistance, the individual or household must meet or fall below the 130% poverty level. For example, in order to qualify, a household of four would have to

have a gross monthly income of \$2,665 or less. SNAP participants receive their benefits through an Electronic Benefits Transfer (EBT) card, which they can use to purchase food at a variety of outlets that are certified vendors for SNAP. There are few limitations to what an EBT card can purchase for a SNAP beneficiary. Items that cannot be purchased are alcohol, tobacco products, household supplies, vitamins, hot foods or foods that will be consumed in a store. USDA also implements SNAP-Ed that was created to promote nutrition education among SNAP participants. While SNAP-Ed targets individuals from SNAP participating households, as such, it does not mandate nutrition education as a requirement for program participation.

Diets of Children from SNAP Participating Households

A 2015 systematic review examined diet quality differences among SNAP participants, income eligible non-participants and higher income participants; six publications examined children's diets (Andreyeva, et al. 2015). The evidence synthesis from this review concluded that children's diets were overall similar among eligible non-participants and SNAP participants. To note, some of the six reviewed studies provided conflicting results.

Leung and colleagues' study (one of six reviewed) examined 4-19 year old aged children's diet quality using consumption of food groups from NHANES 1999-2008 (Leung, C. W. et al. 2013). Both children from SNAP households and eligible non-participating households exceeded recommendations for SSBs, processed meats, saturated fat and sodium. However, children from SNAP households consumed 44% more servings of processed meats, 47% more servings of high-fat dairy products and 43% more servings of SSBs than eligible, non-participating children.

Similar inconsistencies with children from SNAP versus non-SNAP households have been provided from more recent NHANES data. Although diet quality did not differ significantly between SNAP participants and non-participants in Gu and Tucker's analysis, SNAP participants tended to have lower HEI scores compared to eligible non-participants (Gu & Tucker, 2017). However, it should be acknowledged that children from SNAP participating households may also benefit from participation in other food assistance programs such as school meal programs and additionally joint participation in WIC (Andreyeva et al., 2015)

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is a nutrition assistance program that includes checks or vouchers to purchase foods that are outlined to supplement dietary needs. WIC recipients include women that are pregnant, postpartum or breastfeeding, and infants and children ages 1-5 (USDA, 2015). The WIC participant must fall at or below the 185% poverty level; at which, a household of four would have a gross monthly income of \$3,793 or less. Moreover, the WIC participant must also be seen by a health professional at least four times per year. WIC differs from SNAP in that it has restrictions on what the vouchers provided can purchase and the voucher differs depending on the household WIC member. For example, the voucher would differ between a pregnant woman and an infant. Some of the foods allowed by a WIC voucher are formula (for infants), juice, milk, cheese, eggs, fruits and vegetables, whole wheat bread, canned fish and dry or canned legumes. The

WIC food packages are geared toward their target population consisting of low-income women, infants and children.

WIC is one of the programs that has been modified to provide food packages that align more closely with the DGAs (Yaktine & Murphy, 2013). In 2009, the WIC food package was altered to include more fruits, vegetables, whole grains & lower fat milk to correspond with adequate servings of a nutrient-dense diet (Tester et al., 2016).

Children from WIC Participating Households

Unlike SNAP, children participating in WIC have shown consistent higher diet qualities compared to children who are eligible, but non-participants (Tester et al. 2016; Ver Ploeg, 2009). Data from before the WIC food package revisions show the mean HEI score for WIC participating children was 52.4 compared to a mean of 50.0 for income eligible non-participants (Tester, 2016). This is possibly due to the fact that WIC vouchers include food groups that are part of nutrient-dense diets: fruit, vegetables, whole grains and milk options that include lower fat milk. Additionally, the WIC participant is mandated to participate in nutritional education unlike the SNAP participant.

Diets of Children from SNAP and WIC Participating Households

Because children may be from households dually enrolled in SNAP and WIC, it is important to look at diet quality of children who are in households that are participating in both. Liu and colleagues examined healthy and unhealthy diet patterns among children who are from households enrolled in WIC and SNAP versus children from households only enrolled in WIC (Liu et al. 2016). This analysis included 3248 children from the Los Angeles County; 1295 children were from a dually enrolled household and 1953 were from a WIC participating household. Results concluded that children from dually

enrolled households consumed more daily servings of fruit and vegetables, more sugar-sweetened beverages and more sweetened foods compared to children participating in only WIC. Therefore, dually enrolled participants consume more of nutrient-dense food groups, but also consumed more energy-dense foods and beverages compared to WIC only participants. Authors concluded a limitation in that there could be a ‘crossover’ effect where children from dual participating households may be influenced by WIC guidelines.

Qualitative Parental Perceptions

Because parents play a large role in influencing their children’s lifestyle and diet, there is the presumption that the role of the parent may work to prevent their child’s unhealthy dietary patterns (Adamo 2014; Wansink, 2006). Focus groups and interviews have shown parental perceptions about their child’s dietary patterns. Interviews with low-income, Hispanic parent-child dyads were conducted to describe perceptions about healthy eating, specifically fruit and vegetable consumption (Lilo et al., 2018). General perceptions from this exploratory analysis showed that parents are aware that unhealthy diets lead to health consequences such as obesity, diabetes and lack of energy or strength, especially as the child ages. When parents discussed what healthy eating should be, there were mixed responses regarding serving sizes and quantities, but all parents reported their child consumed less than five servings of fruit and vegetables daily. Additionally, children were aware of health benefits of fruit and vegetable consumption and limiting “junk food”.

A similar qualitative study examined 20 father’s perceptions of their young (1-5 years) child’s dietary behaviors (Walsh et al. 2017). Several themes emerged, but

interestingly fathers felt they lacked sufficient knowledge to properly handle their child's nutritional needs. One particular father spoke to the idea of proper quantities of food, "it'd be great to have a guide on what to expect at certain ages and what's okay and what's too much".

Perceptions by Demographics

Broilo and colleagues cross-sectionally examined a small sample of (n=464) Brazilian mothers and their perceptions on their own diets and also their young 2-3 year old children's diets (Broilo et al. 2017). Almost three-fourths of mothers (72%) believed their child had a healthy diet, where only 43% of mothers believed they (as themselves) had a healthy diet. Interestingly, mothers' perceptions that their child ate healthy were significantly associated with the mother having more education compared to having less education.

Dammann and colleagues examined low-income and homeless mothers' perceptions of their 9-13 year old children's diet quality (n=257) (Dammann et al. 2011). Approximately 90% of mothers had a family income of \$19,999 or less and almost 80% of participating mothers participated in SNAP. Although this study did not methodically measure diet quality of the children, it was found that low income mothers rated their children's diet significantly better than their own. Almost 60% of mothers felt their children's diet ranged from good to excellent whereas only 40% of mothers felt their own diet ranged from good to excellent. Interestingly, HEI, DED and consumption of key food groups measurements have all shown in other studies that parent and child dietary behaviors are significantly related (Robson, S. M. et al. 2016; SanGiovanni et al. 2018).

Adamo and colleagues examined path analysis relationships between parental education/income and parental perceptions of their 4-12 year old children's eating habits (n=1940) (Adamo et al. 2010). Correlational results showed that parents who were part of households with incomes more than \$60,000 per year (versus less than \$60,000) and parents with at least a high school education (versus parents lower than grade 12) were more likely to view their child's diet as healthier. Path analysis testing showed that parents from higher income households believed their child consumed more fruits and vegetables, which gave parents the perception that their child ate a healthy diet. Additionally, parents with higher education felt they had a greater influence over their child's weight, which gave them the perception their child ate healthy. Although both Broilo et al., Dammann et al., Adamo et al.'s studies provide insight to parental perceptions and what might generate such perceptions, they do not measure the child's actual dietary consumption.

Quantitative Parental Perceptions

Kourlaba and colleagues examined maternal perceptions of the healthfulness of their child's diet, but also measured the child's diet quality through HEI (Kourlaba et al. 2009). This is only study to quantitatively assess parental perceptions of their child's diet. The GENESIS study (Growth, Exercise and Nutrition Epidemiological Study In preSchoolers) is a Greek cohort of children aged 2-5 years and was used by Kourlaba and colleagues for their analysis. The GENESIS data were used to cross-sectionally analyze and assess maternal perceptions of their child's diet quality. Maternal perceptions of their child's diet quality were assessed and then characterized into groups: very good/good/healthy, not as good (needs improvement), or little good/no good (poor).

Results concluded that mothers overestimated their child's diet by almost 83%. There were not any significant associations found between overestimation and parent, child or household demographics. The strength of this study is that it measures the child's diet through HEI; however, there are several limitations in this study that leave room for further research. First, this study looks at SES by maternal education and employment status but does not examine income or nutrition assistance participation. Ethnicity and race of parent or child was also not examined within this analysis. Because this study is from Greece, household income, nutrition assistance and ethnicity may not be as relevant to children's diet quality as it is in the U.S.

Gaps in the Literature

There is very limited research quantitatively assessing parental perceptions of their child's measured diet. Research has provided descriptive percentages of parents who perceive their child to consume a healthy diet, but there is not substantial research assessing if parents' perception matches the child's actual diet quality. From the review of literature, it was found that only one study (Kourlaba et al. 2009) measured children's diet quality through HEI and compared to the parental perception in order to assess if the parent was correct or not. Few demographics were explored (age, sex and mother's education) to see if there were associations between these demographics and the mother's perception. Household income, the child's race and household participation in SNAP or WIC have yet to be explored when assessing if parent's perception that their child eats healthy matches the child's diet quality. In order to assess if parental perceptions of their child eating a healthy diet match the child's quantitatively measured diet, influential demographics must be included. This study first seeks to understand if parental

perception of their child eating a healthy diet is dependent on the child's consumption of healthy or unhealthy foods. Secondly, this study seeks to assess if parental perceptions match the child's reported dietary intake of specific food categories, but also examine if these patterns vary by age, sex, household income, mother's education, WIC participation or SNAP participation.

CHAPTER 3

METHODS

Participant Data

Data were collected as part of the New Jersey Child Health Study (NJCHS), a longitudinal study examining how the food and physical activity environment are associated with children's weight status and related behaviors. Data used for this analysis were collected from two cross-sectional panel surveys using random digit phone surveys (landline and cell phone) in 2009-2010 and 2014. These surveys were conducted in English and Spanish and included questions regarding demographics, dietary habits and physical activity behaviors. The survey respondent from each household was an adult that was most knowledgeable regarding the health status of a randomly chosen child between the ages 3-18 in the household. Because most of the respondents were either grandparents or parents of the child, the respondent will be referred to as the parent within this analysis. Participant data came from the respondents' answers to questions about themselves and a randomly selected child from their household.

The panel 1, 2009-2010 household survey included 1708 households across five cities in New Jersey: Camden, New Brunswick, Newark, Trenton and Vineland. The panel 2 household survey was conducted in 2013-2014 and included four cities: Camden, New Brunswick, Newark and Trenton and included 803 households. The final sample for analysis consisted of 2198 children, which excluded all cases with missing data.

Study Sample

This analysis included respondents who answered the panel 1 or panel 2 surveys regarding themselves and their randomly selected child and had non-missing responses for the dependent and independent variables.

Dependent Variables

Parental perception of the healthfulness of their child's diet was the dependent variable for research question 1. Concordance between parental perception and consumption frequency of energy-dense and nutrient-dense foods was the dependent variable for research questions 2-4. Parental perception of their child's diet quality was assessed using the following question: "In general, (Index Child) eats healthy?" This question had response options: "Strongly agree", "Somewhat agree", "Somewhat disagree", "Strongly disagree", or "Don't know and refused". The NJCHS collected information on frequency of consumption of key energy-dense and nutrient-dense foods using a series of questions summarized below.

Nutrient-Dense Foods: The child's nutrient-dense frequency consumption was measured from the following survey questions. For each of these listed questions, the respondent could reply in times per day, week or month. 1) "Not counting juice, how often did (Index Child) eat fruit? Count fresh, frozen or canned." 2) "How often did (Index Child) eat a green leafy or lettuce salad, with or without other vegetables?" 3) "Not including French fries or other fried potatoes, how often did (Index Child) eat any other kind of potatoes such as baked, boiled, mashed potatoes or potato salad?" 4) "How often did (Index Child) eat cooked or canned dried beans such as refried beans, baked beans, bean soup, tofu or lentils?" 5) "How often did (Index Child) eat other vegetables

such as tomatoes, green beans, carrots, corn, cooked greens, sweet potatoes, broccoli, or any other kinds of vegetables?” The above questions could be answered by reporting the number of times per day, per week or per month. For analysis, above questions 2, 3, 4 and 5 were combined to create a composite variable of total vegetables per day.

Energy-Dense Foods: The child’s energy-dense frequency consumption was measured from the following survey questions and the respondent could answer in times per day, week or month. 1) “How often did (Index Child) drink fruit flavored drinks such as lemonade, Sunny Delight, Kool-Aid, Gatorade, or sweet iced teas? Do not include 100% fruit juice.” 2) “How often did (Index Child) drink regular carbonated soda or soft drinks that are sweetened such as coke, Pepsi or 7-up? Do not include diet drinks.” 3) “How often did (Index Child) eat salty snacks like chips, Doritos and Nachos?” 4) “How often did (Index Child) eat sweet items like cookies, cakes, candy or pies?” 5) “How often did (Index Child) eat at a fast food restaurant?” These questions could be answered in the number of times per day, per week or per month. For analysis, questions 1 and 2 were combined to create a composite variable of sugar-sweetened beverages per day. Questions 3 and 4 were combined to create a composite variable of energy-dense snacks or also referred to sweet and salty snacks.

Independent Variables

Parents provided responses to questions regarding parent and child sex, age, ethnicity; mother’s education; household income; and participation in the Supplemental Nutrition Assistance Program (SNAP) and in the Special Nutrition Assistance Program for Women, Infants and Children (WIC) in the previous 12 months. These demographics were independent variables throughout the 4 research questions.

Statistical Analysis

SPSS version 24 was used to create the child's overall diet quality score (ODQS) and to create the concordance variable. To create ODQS to reflect the overall healthfulness of the child's diet, frequency of consumption was calculated on a per day basis for the above listed nutrient and energy-dense food categories. The frequency of consumption for each food category was divided into 10 groups (i.e. deciles). A summative score (total score) was created by adding the decile food categories (fruit and veg + SSBs + sweet/salty snacks + fast food). The energy-dense food categories were coded so that a decile score of 1 corresponds with the highest level of consumption, and a score of 10 with the lowest. Nutrient-dense food categories were coded in reverse of the energy-dense food categories. This ensured that lower scores corresponded to less healthy diets and higher scores corresponded to healthier diets. The ODQS was converted into four categories based on quartiles (least healthy to most healthy).

To create the concordance variable that is the dependent variable for research questions 2-4, the four quartiles of the ODQS and parental perception (child eats healthy- four categories- strongly disagree to strongly agree) were then compared to assess concordance. For example, a parent that strongly agreed that their child ate a healthy diet and had a child with a quartile 4 diet score would be considered concordant.

All bivariate and multivariate analyses were conducted using Stata 15. The total analytical sample included 2198 children, which included only non-missing cases. Crosstabulations were conducted to describe the levels of concordance (overestimate, concordant, underestimate) for the analytical sample. Ordered logistic regressions examined if parental perception (strongly disagree – strongly agree) was associated with

the child's consumption of healthy or unhealthy food categories. Odds ratios (OR) were calculated for consumption of fruits, vegetables, 100% fruit juice, SSBs, fast food, sweet and salty snacks and the child's ODQS. For example, an OR was calculated for when the child consumed fruit to examine if the parent's level of agreement to their child eating a healthy diet was higher or lower. This was applied to each consumption variable and was adjusted for the child's age, sex, race and the parent's education level.

Multinomial logistic regressions were used to examine if the three levels of concordance (underestimate, concordant or overestimation) were associated with parent, child or household demographics including participation in WIC or SNAP. Relative risk ratios (RRR) were calculated for parent and child demographics and compared underestimation to the base (concordance) and then compared overestimation to the base (concordance). This model was adjusted for the child's age, sex, race and the parent's education level. RRRs were then ran separately for participation in WIC and adjusted for the previously mentioned demographics. Finally, RRRs were ran separately for participation in SNAP and adjusted for previously mentioned demographics but also adjusted for WIC participation.

CHAPTER 4
MANUSCRIPT

Key Findings: Parental perceptions of their children's diet quality are motivated by their child's consumption of healthy or unhealthy foods. Parental perceptions of the overall healthfulness of their 3-18 year old children's diet do not align with quantitatively measured diet quality scores; there were no differences observed by demographic sub-groups.

Key words: Parental perception; children's diet qualities; concordance

Objective: Parents play a critical role in their child's diets, yet there is lack of research in the US comparing parental perception of their child's diet with quantitatively assessed diet quality. We examined the association between parent perception of their child's overall diet and the child's diet quality, as measured by frequency of consumption of key food categories.

Methods: Secondary analysis was conducted using data from two independent cross-sectional panels of surveys with parents of a 3-18 year old child. Data collection took place in 2009-2010 and 2014, the random sample was drawn from low-income cities. Well-established survey questions assessed parental perception of their child's diet and frequency of consumption of fruits, vegetables, sugar-sweetened beverages (SSB), fast food and unhealthy snacks. Diet quality scores were calculated for each child, with higher scores reflective of healthier diets (max score= 40). Ordered logistic regressions examined associations between parental perception and consumption of food categories. Multinomial logistic regressions examined associations between levels of concordance in parent perception and diet scores by demographic sub-groups.

Results: Almost half of children from our sample were non-Hispanic black (46%) and 40% were Hispanic (n=2198). Overall 52% of parents strongly agreed, 33% somewhat agreed, 10% somewhat disagreed, and 4% strongly disagreed that their child eats a healthy diet. The mean diet quality score for the sample was 20.58 ± 6.7 . Children from our sample with the unhealthiest diet had a mean frequency of fruit intake = 0.8 times/day and SSBs = 2.2 times/day. Children with the healthiest diet had a mean consumption of fruit=1.7/day, and SSBs= 0.4/day. Parental perception of their child's diet was significantly higher when their child consumed more fruit ($p<0.001$) and vegetables ($p<0.001$) and lower when their child consumed more fast food ($p<0.001$), SSBs ($p=0.01$) and unhealthy snacks ($p=0.02$). Over half of parents overestimated the healthfulness of their child's diet (61%). Parent, child and household demographics did not moderate this association.

Conclusions: Although parental perceptions that their child eats healthy are associated when their child eats more healthy foods and less unhealthy foods, parents' perceptions still do not align with their child's diet.

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Introduction

Every five years the United States Department of Agriculture (USDA) and the United States Department of Health and Human Services (DHHS) develop the Dietary Guidelines for Americans (DGAs) based on current scientific evidence (U.S. Department of Health and Human Services and U.S. Department of Agriculture {USDA}, 2015). The most recent guidelines, the 2015 DGAs, affirmed that nutrient-dense diets are those that include a variety of food groups from fruits, vegetables, whole grains, legumes, seafood and nuts and limit consumption of red and processed meats, sugar-sweetened beverages and foods, and refined grains.

Overall, children and adolescents in the United States do not meet recommendations set out in dietary guidance; and children from certain socio-demographic groups are particularly at risk of lower diet quality (Banfield et al., 2016; Gu & Tucker, 2017). Data from the National Health and Nutrition Examination Survey (NHANES) show that HEI component scores for older children (9-18 years old) are significantly lower compared to younger children (4-8 years) in the following food groups: total fruit, whole fruit, dairy and whole grains (Banfield et al., 2016). Non-Hispanic black and Hispanic children have a higher consumption of unhealthy foods compared to non-Hispanic white children (de Hoog et al., 2014). While diets of all children in the US have changed over time (between 1999 to 2012), children from higher income households saw a greater improvement compared to children from middle- and low-income households (Gu & Tucker, 2017).

The Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) are two of the

largest US federal food assistance programs designed to help low-income households eat healthy (United States Department of Agriculture, 2018). Children from low income households that participate in WIC have a higher diet quality compared to children from income eligible non-participant households (Gu & Tucker, 2017). However, this is not the case for children from SNAP participating households. Research shows that children and adolescents from SNAP households either have a similar diet quality (Andreyeva et al., 2015) or a lower diet quality compared to income eligible non-participants (Leung et al., 2017).

Examining the consumption of targeted energy and nutrient-dense foods and beverages has been proposed as an effective way to assess children's diet quality (Koplan, et al. 2005; Barlow & the Expert Committee, 2007). These food categories are selected based on their association with overall diet quality and health outcomes. High energy-dense foods such as sugar-sweetened beverages, pizza, high fat milk, breads, desserts, pasta and savory snacks were major sources of energy intake among U.S. children between the years 1989-2010 (Slining et al., 2013). Consumption of energy-dense foods can lead to excessive calorie consumption among children, which can lead to unhealthy changes in weight status (USDA, 2015).

A nutrient-dense diet for children includes consumption of fruits, vegetables, nuts, whole grains, legumes and seafood and can result in a lower energy intake. The recommended nutrient-dense diets promote healthy eating patterns for children and adults. These patterns are associated with a reduced risk for type 2 diabetes, overweight and obesity for all ages.

Improving children's diets require interventions in multiple settings including homes and schools. Parents play a large role in influencing their children's diet quality (Wansink, 2006). Researchers have argued that improving children's diets is dependent on parental perception and a parent must recognize when their children's diet is poor or needs changes (Adamo, 2014). Several variables contribute to parents' beliefs of their child's diets. In a racially diverse, low-income sample, mothers viewed their own children's diet quality healthier than their own (Dammann et al., 2011). A 2017 cross sectional analysis found similar results, but additionally, the mothers' perception of their children consuming a healthy diet was associated with more maternal education (Broilo et al., 2017). Statistical path analysis testing has shown that parental education and household income are two predictors of parents' perception of healthy eating for their children (Adamo et al., 2010).

Kourlaba and colleagues published the only known cross-sectional analysis comparing parental perception to the child's diet quality using the HEI (Kourlaba et al. 2009). In this study conducted in Greece, the authors argued that measuring parental perception of children's diet quality is important because the parent regulates the child's eating behaviors. In their study, 83% of mothers overestimated their preschoolers diet quality, while almost all of the children had a diet that needed improvement or was poor. There were no significant associations found between overestimation and socio-demographics.

There is lack of research in the U.S. comparing children's reported diet with quantitatively assessed diet quality of children. The proposed study aims to fill this gap and examine how parents perceive their children's diet quality in comparison to the

reported intake of energy-dense and nutrient-dense foods and investigates if parent and child level socio-demographic factors and participation in nutrition assistance programs moderate these associations.

Methods

Participant Data

Data were collected as part of the New Jersey Child Health Study (NJCHS), a longitudinal study examining how the food and physical activity environment are associated with children's weight status and related behaviors. Data used for this analysis were collected from two cross-sectional panels using random digit phone surveys (landline and cell phone) in 2009-2010 and 2013-2014. These surveys were conducted in English and Spanish and included questions regarding demographics, dietary habits and physical activity behaviors. The survey respondent from each household was an adult that was most knowledgeable regarding the health status of a randomly chosen child between the ages 3-18 in the household. Because most of the respondents were either grandparents or parents of the child, the respondent will be referred to as the parent within this analysis. Participant data came from the respondents' answers to questions about themselves and a randomly selected child from their household.

The panel 1, 2009-2010 household survey included 1708 households across five cities in New Jersey: Camden, New Brunswick, Newark, Trenton and Vineland. The panel 2 household survey was conducted in 2013-2014 and included 803 households from four cities: Camden, New Brunswick, Newark and Trenton and included 803 households.

Study Sample

The analytical sample (n=2198) for this analysis included respondents who answered the panel 1 or panel 2 surveys regarding themselves and their randomly chosen child and had non-missing responses for the dependent and independent variables.

Measures

Parental perception of the healthfulness of their child's diet is one of the two dependent variables for this analysis. Parental perception of their child's dietary quality was assessed using the following question: "In general, (Index Child) eats healthy?" This question had response options: "Strongly agree", "Somewhat agree", "Somewhat disagree", "Strongly disagree", or "Don't know and refused".

The NJCHS collected information on frequency of consumption of key energy-dense and nutrient-dense foods. Frequency of consumption questions for these foods are summarized below.

Nutrient-Dense Foods: Consumption of nutrient-dense foods were measured from the following questions and the respondent could answer in times per day, week or month. 1) "Not counting juice, how often did (Index Child) eat fruit? Count fresh, frozen or canned." 2) "How often did (Index Child) eat a green leafy or lettuce salad, with or without other vegetables?" 3) "Not including French fries or other fried potatoes, how often did (Index Child) eat any other kind of potatoes such as baked, boiled, mashed potatoes or potato salad?" 4) "How often did (Index Child) eat cooked or canned dried beans such as refried beans, baked beans, bean soup, tofu or lentils?" 5) "How often did (Index Child) eat other vegetables such as tomatoes, green beans, carrots, corn, cooked greens, sweet potatoes, broccoli, or any other kinds of vegetables?" The above questions

could be answered by reporting the number of times per day, per week or per month. For analysis, the consumption questions listed above (questions: 2, 3, 4 and 5) were combined to create a composite variable of total vegetables per day.

Energy-Dense Foods: Consumption of energy-dense foods were measured from the following questions and the respondent could answer in times per day, week or month. 1) “How often did (Index Child) drink fruit flavored drinks such as lemonade, Sunny Delight, Kool-Aid, Gatorade, or sweet iced teas? Do not include 100% fruit juice.” 2) “How often did (Index Child) drink regular carbonated soda or soft drinks that are sweetened such as coke, Pepsi or 7-up? Do not include diet drinks.” 3) “How often did (Index Child) eat salty snacks like chips, Doritos and Nachos?” 4) “How often did (Index Child) eat sweet items like cookies, cakes, candy or pies?” 5) “How often did (Index Child) eat at a fast food restaurant?” These questions could be answered in the number of times per day, per week or per month. For analysis, consumption questions listed above (questions: 1 and 2) were combined to create a composite variable of sugar-sweetened beverages per day. Consumption questions listed above (questions: 3 and 4) were combined to create a composite variable of energy-dense snacks or also referred to sweet and salty snacks.

To create the child’s overall diet quality score (ODQS) to reflect the overall healthfulness of the child’s diet, frequency of consumption was calculated on a per day basis for the listed nutrient and energy-dense food categories. The frequency of consumption for each food category was divided into 10 groups, based on deciles for each child. A summative score (total score) was created by adding the decile food categories (fruit and veg + SSBs + sweet/salty snacks + fast food). The energy-dense

food categories were coded so that a decile score of 1 corresponds with the highest level of consumption, and a score of 10 with the lowest. Nutrient-dense food categories were coded in reverse of the energy-dense food categories. This ensured that lower scores corresponded to less healthy diets and higher scores corresponded to healthier diets. The ODQS was converted into four categories based on quartiles (least healthy to most healthy).

To create the concordance variable that is our second dependent variable for analysis, the ODQS quartiles and parental perception (child eats healthy-four categories-strongly disagree to strongly agree) were then compared to assess concordance.

Parents provided responses to questions regarding parent and child sex, age, ethnicity; mother's education; household income; and participation in the Supplemental Nutrition Assistance Program (SNAP) and in the Special Nutrition Assistance Program for Women, Infants and Children (WIC) in the previous 12 months.

Statistical Analysis

All bivariate and multivariate analyses were conducted using Stata 15. The total analytical sample included 2198 children, which included only non-missing cases. Crosstabulations were conducted to describe the levels of concordance (overestimate, concordant, underestimate) for the analytical sample. Ordered logistic regressions examined if parental perception (strongly disagree – strongly agree) was associated with the child's consumption of healthy or unhealthy food categories. Odds ratios (OR) were calculated for consumption of fruits, vegetables, 100% fruit juice, SSBs, fast food, sweet and salty snacks and the child's ODQS. Odds ratios were used for examining if parental perception of their child's diet is higher or lower based on the child's consumption of key

food categories. For example, an OR of 1.64 indicated that for every unit increase in the child's frequency of fruit consumption, the odds of the parent in a higher perception was 64% higher. This was applied to each consumption variable and was adjusted for the child's age, sex, race, poverty level and the parent's education level.

Multinomial logistic regressions were performed to examine if the three levels of concordance (underestimate, concordant or overestimation) were associated with parent, child or household demographics including participation in WIC or SNAP. Relative risk ratios (RRR) were calculated for parent and child demographics and compared underestimation to the base (concordance) and then compared overestimation to the base (concordance). This model was adjusted for the child's age, sex, race and the parent's education level. RRRs were then ran separately for participation in WIC and adjusted for the previously mentioned demographics. Finally, RRRs were ran separately for participation in SNAP and adjusted for previously mentioned demographics but also adjusted for WIC participation.

Results

Parent, child and household demographics of the study sample are summarized in Table 1. Most children were non-Hispanic black (46.5%), 40.7% were Hispanic and 9.7% were white. Over half of children were part of households that were below the 200% FPL (68.5%) and over three-fourths of children had a parent that had graduated high school or completed at least some college (81.3%).

Table 1: Demographic Characteristics of the Analytical Sample (n=2198)

Demographic Variables	n	%
Sex		
Male	1120	50.9
Female	1078	49.0
Age		
3-5 years old	352	16.0
5-11 years old	919	41.8
12-18 years old	927	42.2
Race/Ethnicity		
Non-Hispanic White	212	9.7
Non-Hispanic Black	1021	46.5
Hispanic	895	40.7
Other	70	3.2
Mother's Education		
Less than High School	413	18.8
High School or Equivalent	865	39.4
Some College	558	25.4
College degree or more	362	16.5
Poverty level		
< 200% FPL	1506	68.5
> 200% FPL	692	31.5
WIC Status		
Participating	428	19.5
Non-participating	1770	80.5
SNAP Status		
Participating	733	33.4
Non-participating	1465	66.6
Residence		
Newark	679	30.8
Camden	520	23.7
Trenton	484	22.0
New Brunswick	244	11.1
Vineland	271	12.3

Table 2 provides the mean frequency of consumption for different food categories. Children on an average consumed fruits 1.23 times per day and vegetables 1.84 times per day. Regards to unhealthy items, they most frequently consumed SSBs, with a frequency of 1.13 times per day. The mean ODQS for the sample was 20.58, with a range score between 3 to 40. The ODQS scores were divided into four quartiles and the mean scores for each quartile are presented in Table 2.

Table 2: Description of Child’s Dietary Consumption Frequency and Overall Diet Quality Score (ODQS) (n=2198)

Food categories	Mean	Std. Error
Fruits	1.23	0.04
Vegetables	1.84	0.04
100% Juice ^a	1.53	0.05
Sugar-Sweetened Beverages	1.13	0.05
Sweet and Salty Snacks	0.98	0.05
Fast food per week	1.06	0.05
Overall Diet Quality Score (ODQS) ^b		
ODQS (Range: 3.4 - 40.0)	20.58	0.23
1st Quartile ODQS	13.47	0.19
2nd Quartile ODQS	20.55	0.10
3rd Quartile ODQS	25.46	0.10
4th Quartile ODQS	30.71	0.22

^a 100% fruit juice

^b ODQS was calculated by creating decile scores for each consumption variable (1. Fruits & vegetables 2. Sugar-sweetened beverages 3. Sweet + salty snacks 4. Fast food). Each consumption variable decile score was added to create a variable of representing overall diet score.

The frequency of parent’s perception that their child is eating a healthy diet is presented in Table 3. Over half of parents strongly agreed that their child consumed a healthy diet (52.3%) and 33.5% of parents somewhat agreed. A small percentage of parents somewhat disagreed (10%) and strongly disagreed (4.2%) that their child consumed a healthy diet.

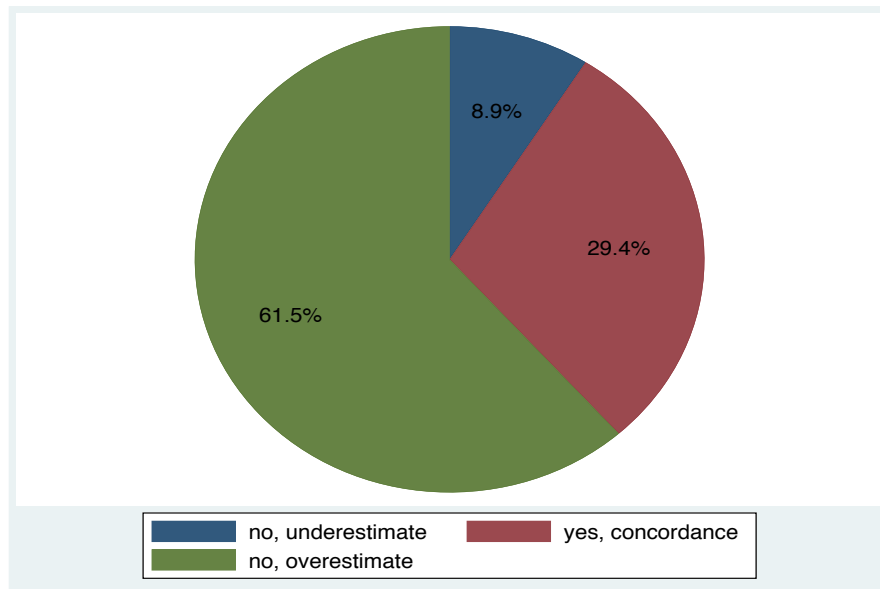
Table 3: Description of Parent’s Perception of the Healthfulness of their Child’s Diet (n=2198)

Parental Perception of the Healthfulness of Child’s Diet^a	n	%
Strongly Disagree	93	4.2
Somewhat Disagree	219	10.0
Somewhat Agree	736	33.5
Strongly Agree	1150	52.3

^a Measured using parent’s level of agreement to the statement “In general, my child eats healthy” with response options: 1. Strongly disagree 2. Somewhat disagree 3. Somewhat agree 4. Strongly agree

Based on the concordance variable, that compared the four levels of parent’s perception (low to high) with the ODQS quartile (low to high), Figure 1 shows that compared to the diet scores based on consumption data, 61.5% of parents overestimated and 8.9% of parents underestimated the healthfulness of their child’s diets. Less than one-third of parental perceptions were concordant with their child’s diets scores that represented the healthfulness of the child’s diet. Appendix A shows a figure similar to Figure 1, however, the concordance levels are broken up by the age categories: 3-5, 6-11 and 12-19. We found that parents of younger (3-5) children had lower rates of underestimation and overestimation compared to parents of older children (6-11 and 12-19 age categories). Almost 54% of parents of 3-5 year old children overestimated their child’s diet qualities compared to 64% of parents of the 6-11 age group and 62% of parents of 12-18 age group. Similarly, less than 8% of parents of 3-5 year old children underestimated their child’s diet qualities compared to almost 9% of parents of the 6-11 age group and almost 10% of parents of the 12-19 age group.

Figure 1: Percentage of Parents Whose Perception of the Healthfulness of their Child’s Diet is an Underestimate, Overestimate or is Concordant Compared to the Child’s Overall Diet Quality Score Based on Reported Consumption (n=2198)



Results from ordered logistic regression analysis of the associations between parental perception and the reported frequency of specific nutrient-dense and energy-dense foods and beverages, adjusting for demographic covariates are presented in Table 4. Parental perception was significantly higher when their child consumed fruit ($p<0.001$) and vegetables ($p<0.001$) more frequently, and when their child’s ODQS was higher ($p<0.001$). Parental perception was significantly lower when their child consumed fast food ($p<0.001$), sugar-sweetened beverages ($p=0.01$) and sweet and salty snacks ($p=0.02$) more frequently. No significant associations were found with frequency of 100% fruit juice consumption.

Table 4: Results from Ordered Logistic Regressions Examining the Associations Between Parental Perception ^c and the Reported Consumption of Specific Nutrient-Dense and Energy-Dense Foods and Beverages (n=2198)

Food Items ^a	Odds Ratio (95% CI) ^b	p-value
Fruits	1.64 (1.37; 1.96)	<0.001
Vegetables	1.74 (1.49; 2.03)	<0.001
100% Juice	1.06 (0.94; 1.19)	0.27
Fast Food	0.66 (0.56; 0.79)	<0.001
Sugar-Sweetened Beverages	0.87 (0.78; 0.96)	0.01
Sweet and Salty Snacks	0.79 (0.65; 0.96)	0.02
Total Diet Quality Score	1.11 (1.08; 1.13)	<0.001

^a Food items are frequencies per day

^b Separate models were run for each food item; models were adjusted for sex, age, mother’s education, household poverty level and child’s race

^c Parental perception refers to their level of agreement with the following statement “In general, my child eats healthy” with response options: 1. Strongly disagree 2. Somewhat disagree 3. Somewhat agree 4. Strongly agree

Results from multinomial logistic regression analysis of the associations between demographics and the level of concordance (underestimation, concordant and overestimation) in parental perceptions of the healthfulness of their child’s diet are presented in Table 5. The ratio of a parent of an older child (12-19 years) underestimating the healthfulness of the child’s diet was 2.14 (p=0.04) compared to a parent of a younger child (3-5 years). Although it did not reach statistical significance, the ratio of a parent of an older child overestimating was 1.48 (p=0.06) compared to parents of younger children. No significant differences were seen across other parent, child and household demographics. Results from multinomial logistic regression analysis of the associations between WIC or SNAP participation and the levels of concordance are presented in Table 6. No significant differences across concordance levels were seen for parents participating in WIC or SNAP.

Table 5: Results from Multinomial Logistic Regression Presenting Associations of the Level of Concordance ^a in Parent Perception of the Healthfulness of Their Child’s Diet with Parent and Child Demographics ^b (n=2198)

	Underestimate Relative Risk Ratio (95% CI)	p-value	Concordant Relative Risk Ratio (95% CI)	Overestimate Relative Risk Ratio (95% CI)	p- value
Mother's education					
Less than H.S.	(Reference)				
H.S.	1.27 (0.63;2.55)	0.49	Reference	0.93 (0.58;1.47)	0.76
Some college	2.04 (0.97;4.29)	0.06	Reference	0.85 (0.51;1.42)	0.56
4 year college or more	0.91 (0.34;2.45)	0.87	Reference	0.78 (0.43;1.39)	0.40
Poverty level ^c					
<200% FPL	1.82 (0.94;3.50)	0.07	Reference	1.06 (0.73;1.54)	0.72
Ethnicity/race					
White	(Reference)				
Non-Hispanic black	1.2 (0.52;2.76)	0.66	Reference	1.15 (0.66;2.03)	0.61
Hispanic	0.89 (0.37;2.12)	0.80	Reference	0.86 (0.49;1.51)	0.60
Other	0.72 (0.19;2.63)	0.62	Reference	0.8 (0.31;2.09)	0.66
Sex ^d					
Female	1.49 (0.87;2.26)	0.16	Reference	0.92 (0.67;1.25)	0.62
Age					
3-5 age	(Reference)				
6-11 age	1.26 (0.60;2.62)	0.53	Reference	1.30 (0.85;1.99)	0.22
12-19 age	2.14 (1.04;4.42)	0.04	Reference	1.48 (0.98;2.25)	0.06

^a Levels of concordance refer to the parent’s perception as an overestimate, underestimate or is concordant about the healthfulness of their child’s overall diet quality (see Figure A)

^b Model was adjusted for sex, age, mother’s education, household poverty level and child’s race

^c Compared to households % 200% Federal Poverty Line

^d Compared to males

Table 6: Results from Multinomial Logistic Regression Presenting Association of the Level of Concordance ^a in Parent Perception of the Healthfulness of Their Child’s Diet with Household Participation in Nutrition Assistance Programs (SNAP and WIC) (n=2198)

	Underestimate Relative Risk Ratio (95% CI)	p- value	Concordant Relative Risk Ratio (95% CI)	Overestimate Relative Risk Ratio (95% CI)	p-value
Non-SNAP	(Reference)				
SNAP ^b	1 (0.56; 1.77)	0.99	Reference	1.09 (0.74; 1.61)	0.64
Non-WIC	(Reference)				
WIC ^c	0.92 (0.45; 1.91)	0.84	Reference	0.95 (0.62; 1.46)	0.83

^a Levels of concordance refer to the parent’s perception as an overestimate, underestimate or is concordant about the healthfulness of their child’s overall diet quality (see Figure A)

^b SNAP model compares to a SNAP non-participant (0); model was adjusted for sex, age, mother’s education, household poverty level, WIC participation and child’s race

^c WIC model compares to a non-participant of WIC (0); model was adjusted for sex, age, mother’s education, household poverty level and child’s race

Discussion:

This is the first study to compare children's quantitatively measured diet quality to parental perceptions in a sample of U.S. children and also include comparisons by parent, child and household demographics, that have been shown to influence U.S. children's diet quality. In a sample of 3-18 year old children from low-income cities in New Jersey, over half of the parents strongly agreed that their child ate a healthy diet. Meanwhile, the quantitatively measured diets were far from adequate. For example, children with the highest diet score quartile did not meet fruit or vegetable recommendations and frequently consumed sugar-sweetened beverages. We found that while parental perceptions of the healthfulness of their child's diet were associated with their child eating more healthy foods (fruits and vegetables) and less unhealthy foods (SSBs, fast food and sweet and salty snacks), over 60% of parents overestimated the healthfulness of their child's diet compared to quantitatively assessed overall diet quality. Parental perception aligned with the quantitatively assessed diet quality for only 30% of cases (i.e. were concordant).

Similar to previous research, we found that a majority of parents perceived their child's diet as healthy. Broilo et al. showed that almost 75% of their sample of Brazilian mothers believed their child consumed a healthy diet (Broilo et al. 2017). Dammann et al.'s results showed that almost 60% of their sample of low-income Minnesotan mothers perceived their child's diets as good to excellent (Dammann et al. 2010).

Most studies examining parental perceptions of their child's diet have been qualitatively designed with focus groups and/or interviews with the parent and/or their child. Lilo et al.'s exploratory analysis of parent-child dyad interviews showed that

parents were generally aware of the consequences of their child eating an unhealthy diet, yet parents were unaware of proper quantities for healthy consumption (Lilo et al. 2018). Although our study did not assess parent's knowledge of health implications of their child's poor diets, we find that consumption of specific healthy and unhealthy food categories were strong predictors of parental perception of the healthfulness of their children's diets.

However, our study revealed a large portion of parents overestimated the healthfulness of their child's diet. This suggests that even though parents know which foods are healthy and which foods are unhealthy, they likely lack the assessment of how much more or less their child should consume of healthy or unhealthy foods to have an overall healthy diet. This is similar to what qualitative interviews with Australian socio-economic diverse fathers showed. Fathers described that they would be open to resources that explain healthy amounts of foods for their child especially as their child develops (Walsh et al. 2017).

Only one study so far has compared parental perception with quantitatively assessed diet quality. Kourlaba et al. in their study of Greek mothers and children found that more than 80% of the mothers overestimated their child's diet compared to quantitatively assessed HEI scores (Kourlaba et al. 2009). The authors from this study did not find significant differences in the associations observed by demographic characteristics (child's age and sex and the mother's education). Interestingly, we found children's age was associated with parents being discordant in their perception of their child's diet quality. Parents of older children were more likely to have perceptions that were discordant with their child's diet compared to parents of younger children. This

suggests that parents of older children may have even less knowledge of how much more or less of a food group their child should consume to have the healthiest diet. Parents of younger children may have greater access to nutrition education through more regular appointments with a healthcare provider compared to parents of adolescents and teenagers. Additionally, the nutrition assistance program WIC offers nutrition education several times per year to parents of 1-5 year old children. Yet, parents of older children would not be eligible for this opportunity unless they were pregnant, breastfeeding, postpartum or had another child in the household under age 5.

While no studies in the U.S. have compared parental perception to measured diet quality, a number of studies examine parents' perceptions of their child's diet by demographic differences. For instance, Broilo et al. found that the mother's perception that her child was eating a healthy diet was associated with more maternal education (Broilo et al. 2017). Adamo et al. have shown that parents from higher income households perceived their child ate more fruits and vegetables which gave parents the perception that their child was eating a healthy diet (Adamo et al. 2010). While we found no differences were observed by demographic sub-groups including the child's sex, race, household income and mother's education, we found significant differences between the child's age.

Strengths and Limitations

The major strength of this study was the large sample size (n=2198). This study is also the first in the U.S. to compare parental perceptions of their child's diet to the child's quantitatively measured diet quality. Additionally, validated survey questions measured the child's frequency of consumption of these key food categories, which were used for

our diet scores that were used to create concordance. Finally, this study measured a group of children from several low-income cities from New Jersey that are ethnically diverse.

This study is not without limitations. Because our study did not have the child's detailed dietary intake, we could not create a standard diet quality variable such as an HEI score. Secondly, the child's consumption of food categories included fruits, vegetables, SSBs, fast food and sweet and salty snacks, but did not measure frequency of consumption of other key food categories recommended by MyPlate such as protein, whole grains and dairy (USDA, 2019). The child's quantitatively measured diet of these food categories was collected from their parent's self-report. Although parental self-report of their child's diet has noted limitations, previous research has shown accuracy between parental self-report and their child's consumption of fruits and vegetables (Byers et al. 1993). Additionally, parental report assessed not only young children, but also assessed older children's diets. This could be a limitation because an older child may have greater access to foods outside of school or the home that the parent is unaware of. Finally, this study is cross-sectionally designed and cannot infer causality but can infer associations.

Conclusion:

This study shows that parental perceptions that their child eats healthy are associated with their child eating healthy foods more frequently and eating unhealthy foods less frequently. However, parental perception of the healthfulness of their child's diet is not aligned with the quantitatively measured overall diet quality scores, with a large percentage of parents overestimating the healthfulness of their children's diet.

Implications for Research and Practice

We find that parents lack the ability to correctly assess the healthfulness of their child's diet, with a large majority of parents overestimating. Common messages from the MyPlate guide directed to parents or caregivers recommend specific servings (in cups) for fruits and vegetables and to overall limit added sugars including sugar-sweetened beverages for children (USDA, 2018). While we see from our results that parents know which foods are healthy, they are unable to assess how frequently or how much of foods from different categories should be consumed. Interventions should place an emphasis on helping parents become aware of specific recommendations for amounts or frequencies of foods to be consumed so they are better equipped to assess their child's overall diet, and to continue to promote healthful eating for their child.

Further research should measure if parental perceptions are dependent on other food groups including dairy, protein and whole grain consumption. Additionally, studies should aim to include other U.S. populations including white and higher income populations. Finally, parent concordance levels should be measured through other standardized measurements of diet quality such as the child's HEI score or energy intake.

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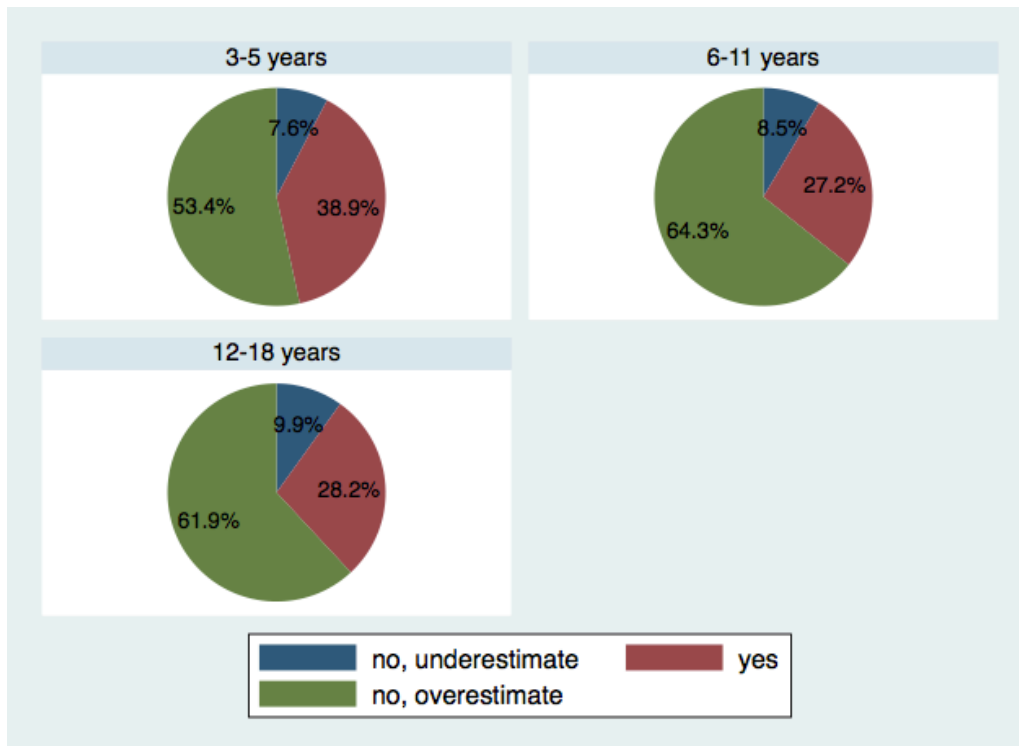
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APPENDIX A

RESULTS FROM BIVARIATE ANALYSIS- PIE CHART

Figure 2: Percentage of Parents of Children Across Different Ages Whose Perception of the Healthfulness of their Child's Diet is an Underestimate, Overestimate or is Concordant (n=2198)



APPENDIX B

RESULTS FROM MULTIVARIATE ANALYSES-INTERACTIONS

Table 4.1: Results from Ordered Logistic Regressions Examining Associations for Parental Perception and Interactions Between SNAP Participation and Reported Consumption of Specific Nutrient-Dense and Energy-Dense Foods and Beverages ^a

	Non-Participant		SNAP Participant		Difference p-value ^d
	OR ^b (95% CI)	p-value	OR ^c (95% CI)	p-value	
Fruit	1.73 (1.42; 2.11)	<0.001	1.50 (1.07; 2.09)	0.02	0.46
Vegetable	1.87 (1.53; 2.28)	<0.001	1.53 (1.22; 1.93)	<0.001	0.20
Fruit Juice	1.03 (0.88; 1.21)	0.62	1.11 (0.94; 1.30)	0.20	0.58
Sweet & Salty Snacks	0.67 (0.55; 0.81)	<0.001	0.93 (0.77; 1.12)	0.48	0.02
Fast Food	0.66 (0.56; 0.78)	<0.001	0.68 (0.45; 1.02)	0.06	0.91
SSBs	0.79 (0.71; 0.89)	<0.001	0.95 (0.82; 1.11)	0.55	0.06

^a Interactions individually ran for SNAP + each consumption variable; adjusted for sex, age, mother's education, household poverty level and child's race

^b Non-participant coded as (0) for interaction model

^c SNAP participant coded as (1) for model; linear combination estimation used to test model for SNAP participation (1)

^d Non-participant (0) – SNAP (1) participant = difference between non-participants and participants

Table 4.2: Results from Ordered Logistic Regressions Examining Associations for Parental Perception and Interactions Between WIC Participation and Reported Consumption of Specific Nutrient-Dense and Energy-Dense Foods and Beverages ^a

	Non-Participant		WIC Participant		Difference p-value ^d
	OR ^b (95% CI)	p-value	OR ^c (95% CI)	p-value	
Fruit	1.75 (1.43; 2.14)	<0.001	1.38 (1.00; 1.92)	0.05	0.23
Vegetable	1.89 (1.58; 2.25)	<0.001	1.36 (1.03; 1.81)	0.03	0.06
Fruit Juice	1.03 (0.90; 1.18)	0.64	1.23 (1.00; 1.51)	0.04	0.15
Sweet & Salty Snacks	0.82 (0.68; 1.01)	0.06	0.62 (0.47; 0.82)	0.001	0.11
Fast Food	0.69 (0.57; 0.83)	<0.001	0.59 (0.44; 0.79)	0.001	0.37
SSBs	0.87 (0.78; 0.98)	0.02	0.77 (0.60; 0.97)	0.03	0.32

^a Interactions individually ran for WIC + each consumption variable; adjusted for sex, age, mother's education, household poverty level and child's race

^b Non-participant coded as (0) for interaction model

^c WIC participant coded as (1) for model; linear combination estimation used to test model for WIC participation (1)

^d Non-participant (0) – WIC (1) participant = difference between non-participants and participants

Table 4.3: Results from Ordered Logistic Regressions Examining Associations for Parental Perception and Interactions Between Federal Poverty Level (FPL) and Reported Consumption of Specific Nutrient-Dense and Energy-Dense Foods and Beverages ^a

	Above 200%		Less than 200%		Difference
	FPL		FPL		
	OR ^b (95% CI)	p-value	OR ^c (95% CI)	p-value	p-value ^d
Fruit	2.34 (1.67; 3.28)	<0.001	1.49 (1.23; 1.81)	<0.001	0.02
Vegetable	2.32 (1.68; 3.21)	<0.001	1.58 (1.34; 1.87)	<0.001	0.04
Fruit Juice	1.00 (0.74; 1.35)	0.98	1.09 (0.97; 1.22)	0.13	0.60
Sweet & Salty Snacks	0.60 (0.43; 0.83)	0.002	0.85 (0.70; 1.02)	0.08	0.07
Fast Food	0.61 (0.49; 0.76)	<0.001	0.70 (0.55; 0.88)	0.002	0.41
SSBs	0.86 (0.75; 0.99)	0.04	0.87 (0.77; 0.98)	0.02	0.95

^a Interactions individually ran for poverty level + each consumption variable; adjusted for sex, age, mother's education, household poverty level and child's race

^b Above FPL (>200% FPL) coded as (0) for interaction model

^c Below FPL (<200% FPL) coded as (1) for model; linear combination estimation used to test model for <200% FPL (1)

^d Above FPL (0) – FPL (1) = difference between poverty levels

Table 4.4: Results from Ordered Logistic Regressions Examining Associations Between Parental Perception and Interactions Between Sex and Reported Consumption of Specific Nutrient-Dense and Energy-Dense Foods and Beverages ^a

	Male		Female		Difference
	OR ^b (95% CI)	p-value	OR ^c (95% CI)	p-value	p-value ^d
Fruit	1.66 (1.29; 2.13)	<0.001	1.63 (1.27; 2.08)	<0.001	0.91
Vegetable	1.82 (1.44; 2.29)	<0.001	1.67 (1.37; 2.03)	<0.001	0.58
Fruit Juice	1.02 (0.85; 1.22)	0.79	1.11 (0.97; 1.27)	0.11	0.44
Sweet & Salty Snacks	0.70 (0.54; 0.92)	0.01	0.89 (0.68; 1.17)	0.42	0.21
Fast Food	0.62 (0.51; 0.75)	<0.001	0.75 (0.58; 0.97)	0.03	0.32
SSBs	0.87 (0.76; 0.99)	0.05	0.87 (0.75; 1.01)	0.06	0.98

^a Interactions individually ran for child's sex + each consumption variable; adjusted for sex, age, mother's education, household poverty level and child's race

^b Males coded as (0) for interaction model

^c Females coded as (1) for model; linear combination estimation used to test model for females (1)

^d Males (0) – Females (1) = difference between sexes

APPENDIX C
IRB APPROVAL

APPROVAL:CONTINUATION

Punam Ohri-Vachaspati
 Nutrition
 602/827-2270 Punam.Ohri-Vachaspati@asu.edu

Dear Punam Ohri-Vachaspati:
 On 7/21/2018 the ASU IRB reviewed the following protocol:

Type of Review:	Continuing Review
Title:	Impact of Environmental Changes on Children's BMI and Behaviors: A Panel Study
Investigator:	Punam Ohri-Vachaspati
IRB ID:	1107006669
Category of review:	(4) Noninvasive procedures, (7)(a) Behavioral research
Funding:	Name: HHS: National Institutes of Health (NIH), Funding Source ID: HHS-NIH-National Institutes of Health; Name: Robert Wood Johnson Foundation
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • corner store intro letter, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Farmer's Market survey - Spanish, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • instructions for weight measurement, Category: Participant materials (specific directions for them); • Rutgers approval.pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Revised Consent Language, Category: Recruitment materials/advertisements /verbal scripts/phone scripts; • NJCH_NursesPaperBaseCopy.pdf, Category: Measures (Survey questions/Interview questions

<ul style="list-style-type: none"> /interview guides/focus group questions); • non-contact letter panel 1 time 2, Category: Recruitment materials/advertisements
--

/verbal scripts/phone scripts;

- Rutgers IRB approval amend 9-22-14, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);
- instruction for height measurements, Category: Participant materials (specific directions for them);
- phone survey panel 1 time 2, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- Supermarket survey - English, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- NJCHS Panel 2.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- IRB-amendment-form-2014a 5-20-14_worksheet cover letter-corner store checklist (1).pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);
- Rutgers_IRB approval - Amend 5 28 14_worksheet Cover-letter (1).pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);
- NJCHS store audit, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- ASU Subcontract with The Food Trust on RWJF funded project, Category: Sponsor Attachment;
- Parent measurement reminder letter, Category: Recruitment materials/advertisements /verbal scripts/phone scripts;
- Rutgers_IRB approval - amend 4 16 14_worksheet (1).pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);
- Parent measurement invitation letter, Category: Recruitment materials/advertisements /verbal scripts/phone scripts;
- Supermarket survey - Spanish, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- ASU Subcontract with The Food Trust on RWJF funded project, Category: Sponsor Attachment;

- Farmer's Market survey - Back-translated from Spanish, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- COSS non-contact email panel 1 time 2, Category: Recruitment materials/advertisements /verbal scripts/phone scripts;
- Rutgers IRB amendment.pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);
- ASU Subcontract with The Food Trust on RWJF funded project, Category: Sponsor Attachment;

- ASU Subcontract with The Food Trust on RWJF funded project, Category: Sponsor Attachment;
- Supermarket survey - Back-translated from Spanish, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- Farmer's Market survey - English, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);
- ASU_July_2011_SocialBehavioralapplication_july_2 2.docx, Category: IRB Protocol;
- Translation Certification Form, Category: Translations;

The IRB approved the protocol from 7/21/2018 to 7/20/2019 inclusive. Three weeks before 7/20/2019 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 7/20/2019 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

APPENDIX D

NEW JERSEY CHILD HEALTH STUDY SURVEY

4462 - Childhood Obesity Questionnaire
5-28-09 FINAL

Introductory script

Hello, this is _____ and I am calling for Rutgers University. We are conducting a survey of New Jersey families in order to understand and improve the health of their children. I need to speak with an adult, 18 years or older, who lives here and makes most decisions about food shopping for this household.

IF ROOMMATES /NO FAMILY MEMBERS, SAY: In that case I can continue with you if you are 18 years of age or older.

IF NO ONE 18 YEARS OF AGE OR OLDER EVER: Is this a dormitory, a medical institution or hospital, some other type of institution, a place of business, or is this your home?

IF HOME: What is the age of the oldest person living in this home? (AS LONG AS THE OLDEST HOUSEHOLD MEMBER IS AT LEAST 18 YEARS OF AGE, WE CAN INTERVIEW THEM.)

IF DORMITORY, INSTITUTION, ETC. RECORD APPROPRIATELY AND END CONVERSATION.

(INT: IF NO ONE IN HH IS 18 YEARS OF AGE OR OLDER ENTER DISPO AS “NO ONE IN HH IS 18 YEARS OF AGE OR OLDER”)

IF NEW RESPONDENT COMES TO PHONE SAY:

Hello, this is _____ and I am calling from Rutgers University. We are conducting a survey of New Jersey families in order to understand and improve the health of their children. I need to speak with an adult, 18 years or older, who lives here and makes most decisions about food shopping for this household.

(IF EXPRESSES CONCERN ABOUT CONFIDENTIALITY READ:)

You as an individual will not be linked to any reports using the data. Only information for groups of people will be reported.

(IF ASKED LENGTH OF INTERVIEW READ:) The first part of the conversation will last only a few minutes. If the computer selects you to continue with a longer interview I'll explain at that time.

(IF RESPONDENT HAS OTHER QUESTIONS ABOUT THE SURVEY...WHETHER THEY AGREE TO CONTINUE OR NOT...READ:) If you have additional questions, you can contact someone at our firm by either calling a toll-free number during normal business hours, or e-mailing us anytime of the day. Would you like the toll free number and/or the e-mail address? Do you have something to write this down? The number is 1-800-772-9287. Ask to speak to Mr. Munjack. The e-mail address is: njhealth@srbi.com. Would you like me to repeat that/either of them? [IF RESPONDENT WANTS TO MAKE THIS CALL BEFORE CONTINUING...ARRANGE CALLBACK DATE AND TIME.] If you still have questions about this survey, please contact Susan Brownlee at the Center for State Health Policy at Rutgers University, 55 Commercial Avenue, New Brunswick, NJ, 08901-1340, or by telephone at 732-932-4666. If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey
Institutional Review Board for the Protection of Human Subjects

Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559
Tel: 732-932-0150, ext. 2104
Email: humansubjects@orsp.rutgers.edu

INTRO2. Rutgers and
(IF SC1a=1 OR SC1baa=1:) Hello, this is _____ and I am calling for University. We are conducting a survey of New Jersey families in order to understand and improve the health of their children.

(SHOW FOR ALL:) The survey is confidential and its findings will help shape policies and programs that impact children's health in New Jersey. You have been randomly selected to participate in this study.
We are not selling anything or asking for donations. This study is sponsored by the Robert Wood Johnson Foundation, a non-profit organization. Our goal is to understand and improve the health of New Jersey children. Your participation in the study is voluntary and confidential.
If you are eligible to participate in the full interview we will send you a check for \$10.00 as a token of our appreciation for your time and cooperation.

1 = CONTINUE

SC1. First let me just verify that you are 18 years of age or older? (NASF,SINTRO_1)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF SC1=1, GO TO SC1ba. ELSE GO TO SC1a.)

SC1a. I need to speak to an adult 18 years of age or older, who lives in this household and makes most decisions about food shopping for this household.

- 1 = Qualified respondent came to phone
- 2 = Qualified respondent not available
- 3 = Qualified respondent Refused

(IF SC1a=1, GO BACK TO INTRO2. IF SC1a=2, schedule CB. IF SC1a=3, dispo as Refusal.)

SC1ba. And I just want to verify that you make most decisions about food shopping for this household.

(IF THEY ARE AS KNOWLEGEABLE AS ANYONE ELSE OR EQUALLY AS KNOWLEDGEABLE RECORD AS "YES")

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF SC1ba=1, GO TO SC2a. ELSE GO TO SC1baa.)

SC1baa. I need to speak to an adult 18 years of age or older, who lives in this household and makes most decisions about food shopping for this household.

- 1 = Qualified respondent came to phone
- 2 = Qualified respondent not available
- 3 = Qualified respondent Refused

dispo (IF SC1baa=1, GO BACK TO INTRO2. IF SC1baa=2, schedule CB. IF SC1baa=3, as Refusal.)

SC2a. In what city do you currently live? (DO NOT READ LIST)

- 1 = Camden
- 2 = Newark
- 3 = New Brunswick
- 4 = Trenton
- 5 = Vineland
- 6 = Other (Do NOT Specify)
- 9 = (VOL) Refused

as (Programmer: If SC2a=6, TERMINATE (“S/O SC2a – Not in 1 of 5 cities). If SC2a=7, dispo as Refusal. Else go to SC2a1.)

SC2a1. Do you live within the city limits of (*insert from SC2a*), or do you live outside the city limits?

- 1 = Inside the city limits
- 2 = Outside the city limits
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

4, (Programmer: If SC2a1=2 TERMINATE (“S/O SC2a1 – Not in 1 of 5 cities). If SC2a1=3 or dispo as Refusal. Else go to SC2c.)

(IF (V4=2 or 3), read: “I must have entered some of your previous answers incorrectly. I need to re-ask about the number of family members living in your household.”)

Display: Please tell me how many people are currently living in your household that are in the following age groups.

SC2ca. How many people in your household are currently...Under 3 years of age?

(RANGE = 0 to 10; 10=10 or more; 11=DK; 12=REF)

—————
(IF SC2ca=1 through 10, ASK SC2ca1. ELSE GO TO SC2cb.)

SC2ca1. (IF SC2ca=1, read:) Is this child related to you by blood, through marriage or living as married? (INTERVIEWER: If “Yes,” enter “1.” If “No,” enter “0.”)

blood, **(IF SC2ca=2 through 10, read:)** How many of them are related to you by
through marriage or living as married?

(RANGE = 0 to 10; 10=10 or more; 11=DK; 12=REF)

—————
(Programmer: Answer to SC2ca1 can NOT exceed answer to SC2ca.)

SC2cb. How many people in your household are currently...3 to 18 years of age? Please INCLUDE yourself if you happen to be 18 years of age.

(RANGE = 0 to 10; 10=10 or more; 11=DK; 12=REF)

—————
(Programmer: If ((SC2cb=0 or 11 or 12), TERMINATE (“S/O SC2cb - No 3 to 18 children in HH”). ELSE GO TO SC2b1.)

SC2cb1. **(IF SC2cb=1, read:)** Is this child related to you by blood, through marriage or living as married? (INTERVIEWER: If “Yes,” enter “1.” If “No,” enter “0.”)

blood, **(IF SC2cb=2 through 10, read:)** How many of them are related to you by
through marriage or living as married?

Please COUNT YOURSELF, if applicable.

(RANGE = 0 to 10; 10=10 or more; 11=DK; 12=REF)

—————
(Programmer: Answer to SC2cb1 can NOT exceed answer to SC2cb.)

SC2cc. How many people in your household are currently...OVER the age of 18? Be sure to INCLUDE yourself, if applicable.

(RANGE = 0 to 10; 10=10 or more; 11=DK; 12=REF)

—————
(IF SC2cc=1 through 10, ASK SC2cc1. ELSE GO TO INSTRUCTS BEFORE SC2d1.)

SC2cc1. **(IF SC2cc=1, read:)** Is this person related to you by blood, through marriage or living as married? (INTERVIEWER: If “Yes,” enter “1.” If “No,” enter “0.”)

(IF SC2cc=2 through 10, read:) How many of them are related to you by blood, through marriage or living as married?

Please COUNT YOURSELF, if applicable.

(RANGE = 0 to 10; 10=10 or more; 11=DK; 12=REF)

(Programmer: Answer to SC2cc1 can NOT exceed answer to SC2cc.)

(IF (SC2cb1=1) AND (SC2cc=0 or SC2cc1=0), TERMINATE (“S/O SC2c – No Adults/Only 1 Child”).

(IF (SC2ca1=11 or 12) OR (SC2cb1=11 or 12) OR (SC2cc1=11 or 12), dispo as Refusal.)

(IF SC2cb1=0, ASK SC2d1. ELSE GO TO SC4b.)

SC2d1. Being that you are NOT related to *(the 3 to 18 year old child / any of the 3 to 18 year old children)*, I am unable to conduct the interview with you. Instead, I will need to speak with the adult in your household who IS related to *(that child / those children)* and makes most decisions about food shopping for the *child / children*. Is that person available?

1 = Came to Phone/Brought to Phone

2 = Not Available

3 = Refused to Come to Phone / Refused to Bring to Phone

(IF SC2d1=1, ask SC2e. IF SC2d1=2, Schedule CB. IF SC2d1=3, dispo as Refusal.)

SC2e. Hello, this is _____ and I am calling for Rutgers University. We are conducting

a survey of New Jersey families in order to understand and improve the health of their children. I have already spoken with one of the other adults in your household and they indicated that you are related to *(if sum from SC2cb > 1, insert: “at least 1 of the 3 to 18 year old children” / if sum from SC2cb =1, insert: “the 3 to 18 year old child”)* in this household. Is that correct?

1 = Yes

2 = No

9 = (VOL) Refused

(IF (SC2e=1), go back to SC2ca. IF SC2e=2, go back to SC2d1. If SC2e=9, dispo as Refusal.)

SC4b. Let me verify that there is a total of *(INSERT SUM FROM SC2ca/SC2cb/SC2cc)* people, INCLUDING YOURSELF, in your household. Is that correct?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF SC4b=1, GO TO SC5. IF SC4b=2, go back and re-ask SC2ca through SC2cc. ELSE dispo as Refusal.)

(Programmer: Create the following variables:

➤ “TOTHH” = Sum of SC2ca/SC2cb/SC2cc.

➤ “TOTFAM” = Sum of SC2ca1/SC2cb1/SC2cc1.

➤ “TOTNFAM” = “TOTHH” minus “TOTFAM”

➤ “NONFAMAD” = “SC2cc” minus “SC2cc1”

➤ “NONFAMCH” = “SC2cb” minus “SC2cb1”

To complete this section, I just need to have YOUR first name or initials.

SC5. First you...what is YOUR first name or initials?

____ Record Verbatim

SC5a. (INTERVIEWER: RECORD GENDER BY OBSERVATION)

1 = Male
2 = Female

SC5b. What is your age?

(RANGE = 18 to 99; 98 = DK; 99 = REF)

(IF SC5b=98 or 99, ASK SC5b1. ELSE GO TO INSTRUCTS BEFORE SC6.)

SC5b1. Can you please tell me if your age is...(READ LIST)?

(ONLY SHOW CODES 5 through 11)

1 = 3 to 4,
2 = 5 to 9,
3 = 10 to 13,
4 = 14 to 16,
5 = 17 to 18,
6 = 19 to 30,
7 = 31 to 49,
8 = 50 to 61,or
9 = 62 or older?
10 = (VOL) Don't Know
11 = (VOL) Refused

(IF SC5b=18 or SC5b1=5, THEN THE # OF TIMES TO ASK THE SC6/SC7/SC7a/SC7a1 LOOP WILL BE EQUAL TO THE TOTAL FROM SC2cb1.

IF SC5b<>18 AND SC5b1<>5, THEN THE # OF TIMES TO ASK THE SC6/SC7/SC7a/SC7a1 LOOP WILL BE EQUAL TO THE TOTAL FROM SC2cb1 PLUS 1.)

**(AUTOPUNCH THE ANSWER FROM SC5 INTO ITERATION #1 OF SC6 (i.e. – the RESP).
AUTOPUNCH THE ANSWER FROM SC5a INTO ITERATION #1 OF SC7 (i.e. – the RESP).
AUTOPUNCH THE ANSWER FROM SC5b INTO ITERATION #1 OF SC7a (i.e. – the RESP).
AUTOPUNCH THE ANSWER FROM SC5b1 (if applicable) INTO ITERATION #1 of SC7a1 (i.e. – the RESP).)**

SC6. ***[READ FOR REMAINING ITERATIONS]***
And what is the first name or initials of the oldest child age 3 to 18 that is related to you? And the next oldest child age 3 to 18 that is related to you?

(ASK SC6 UNTIL WE HAVE CAPTURED THE SUM FROM (SC2cb1) or (SC2cb1 PLUS Resp)...whichever is applicable.

(Read if necessary: The goal of this survey is to understand and improve children's health. All information is confidential.)

(ASK SC7 to SC7a1 CONSECUTIVELY FOR RESPONDENT AND EACH PERSON FROM SC6.)

SC7. ***(Is name or initials)*** a male or female?

1 = male
2 = female

SC7a. What is ***(name or initials)***'s age?

(RANGE for RESP = 18 to 99; 98 = DK; 99 = REF)
(RANGE for Children = 3 to 18; 98 = DK; 99 = REF)

(ASK IF SC7a IS DK OR REF... OTHERS TO FR1.)

SC7a1. Can you please tell me if ***(name or initials)*** age is (READ LIST)

(ONLY SHOW CODES 1 through 5, and 10 and 11)

1 = 3 to 4,
2 = 5 to 9,
3 = 10 to 13,
4 = 14 to 16,
5 = 17 to 18,
6 = 19 to 30,
7 = 31 to 49,
8 = 50 to 61,or
9 = 62 or older?
10 = (VOL) Don't Know
11 = (VOL) Refused

SECTION FR1 (HOUSEHOLD/FAMILY ROSTER)

(ASK FR1a FOR EACH CHILD MENTIONED AT SC6 SERIES. IF NO OTHERS GO TO BOX A.)

FR1a. What relation is ***(name/initials)*** to you?

(NOTE: YOU ARE ALWAYS RECORDING WHAT RELATIONSHIP THE CHILD HAS TO THE RESPONDENT.)

[IF CHILD MENTIONED: “Is that your natural or legally adopted child, your stepchild, your foster child, or a child for whom you are the legal guardian?”]

- 1 = my spouse/husband/wife
- 2 = my unmarried partner/boyfriend/girlfriend/domestic partner
- 3 = my natural or legally adopted child/son/daughter
- 4 = my stepdaughter/son
- 5 = my foster child
- 6 = my grandchild/grandson/granddaughter
- 7 = my child for whom I am the legal guardian
- 8 = partner’s natural or legally adopted child/son/daughter
- 9 = partner’s stepdaughter/son
- 10 = partner’s foster child
- 11 = partner’s grandchild/grandson/granddaughter
- 12 = partner’s child for whom I am the legal guardian
- 13 = my brother/sister/sibling
- 14 = my sister/brother-in-law
- 15 = my daughter/son-in-law
- 16 = my niece/nephew
- 17 = my cousin
- 18 =my great grandchild
- 19 = my other relative, specify: _____
- 20 = other, specify: _____

(NOW GO BACK AND ASK FRI FOR THE NEXT PERSON. IF NO OTHERS GO TO BOX A.)

BOX A:

Please compile 2 separate Rosters:

- 3. Family Roster: - Show the name/initials, gender and age of the Respondent, AND each HH member listed at the SC6 series that is related to the Respondent (i.e. – FRI=1).***
- 4. 3-18 Family Roster: - Show the name/initials, gender and age of each 3 to 18 year old HH member listed at the SC6 series that is related to the Respondent (i.e. – FRI=1). Do NOT include Respondent if he/she is 18.***

(PROGRAMMER NOTE: When creating ALL sub-lists for use throughout the survey, make sure that each HH member always occupies the SAME iteration # on ALL sub-lists. The order in which the HH members are inventoried at the SC6 series can be used as the key for determining to which iteration each HH member is to be assigned.)

BOX B:

- > **IF “3-18 Family Roster” IS EMPTY, GO TO V4.**
- > **IF ALL OF THE PEOPLE IN THE “3-18 Family Roster” ARE EITHER (FR1a=1 or 2,) TERMINATE (“S/O BOX B – Spouse/Partner of Resp.”).**
- > **ELSE GO TO INSTRUCTS BEFORE SC9a.**

V4. The answers that I recorded previously indicate that there is/are (*insert # from SC2cb1*) children in your household between the ages of 3 to 18 years old who are related to you. However, based upon your subsequent answers, it appears that none of these 3 to 18 year old children in your household are related to you. So, I need to know which of the

following

most accurately describes your household situation? (READ LIST)

- 1 = There are NO 3 to 18 year old children living in this household AT ALL,
- 2 = YOU are over the age of 18 AND there is at least one 3 to 18 year old child living in this household who is RELATED to YOU,
- 3 = YOU are currently 18, but there is also at least one other 3 to 18 year old child living in this household who is RELATED to YOU, or
- 4 = YOU are currently 18 years old, and there are NO other 3 to 18 year olds living in this household who are RELATED to YOU?
- 9 = (VOL) Refused

(IF V4=1 or 4, TERMINATE (“S/O V4 – NO 3 to 18 IN HH”). IF V4=2 or 3, GO BACK TO SC2c. IF

V4=3, dispo as Refusal.)

(IF “NONFAMAD” > 0 AND “NONFAMCH” > 0, ask SC9a. ELSE GO TO SC8a.)

SC9a. Do any of the other UNRELATED ADULTS currently living there use the same land line phone as you?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don’t Know3
- 9 = (VOL) Refused

(IF SC9a=1, ASK SC9b. ELSE GO TO SC8a.)

SC9b. Do they have any children ages 3-18 who are RELATED TO THEM, but are NOT related TO YOU living in this household? (INTERVIEWER: If “Yes,” probe with,

“How many?” If “No,” record as “0.”)

(RANGE=0 to 14; 14=14 or more; 15=DK; 6=REF)

:

_____ Record #

(IF SC9b=0 or 15 or 16, go to SC8a. Else go to SC9c.)

SC9c. What is the name of the adult who makes the food shopping decisions for (*this 3-18 year old child / those 3-18 year old children*)?

1 = Gave Response
9 = (VOL) Refused

SC8a. Do you have more than one landline telephone number in your household?

[IF "NO" ENTER "1"...IF YES ASK: How many different landline telephone numbers do you or anyone else in the household have at this residence at which you NORMALLY receive incoming phone calls? Do NOT include modem or fax lines, beepers, pagers or cell phones.]

(RANGE=1 to 12; 10=10 or more; 11=DK; 12=REF)

_____ Record #

SC8b. At any time during the past twelve months has your household been without any telephone service (working telephone number) for a week or longer?

1 = Yes
2 = No
8 = (VOL) Don't Know
9 = (VOL) Refused

(IF SC9=1, GO BOX C. IF SC9=2, SCHEDULE CB. IF SC9=3, DISPO AS REFUSAL.)

(INSERT TIME STAMP)

BOX C:

> RANDOMLY SELECT ONE INDEX CHILD FROM THE "3-18 FAMILY ROSTER" (see Box A) ACCORDING TO THE FOLLOWING RULES:

1 -- RANDOMLY SELECT ONE OF RESPONDENT'S CHILDREN AGES 3-18 (i.e. -- FR1a=3 or 4 or 5 or 7 or 8 or 9 or 10 or 12).

2 -- IF RESPONDENT DOES NOT HAVE ANY CHILDREN (i.e. -- (FR1a<3 AND FR1a<4 AND FR1a<5 AND FR1a<7 AND FR1a<8 AND FR1a<9 AND FR1a<10 AND FR1a<12)

FROM THE "3-18 Family Roster."

3 -- IF A CHILD IN THE "3-18 FAMILY ROSTER" IS THE SPOUSE OR PARTNER OF THE RESPONDENT (i.e. -- FR1a=1 OR 2), THEN THAT CHILD IS NOT ELIGIBLE TO BE SELECTED AS THE INDEX CHILD.

(AA12 through AA16 IS ASKED ONLY OF EACH CHILD FROM THE "3-18 Family Roster." ALWAYS START WITH THE INDEX CHILD.)

(IF (SC7=2 for Resp) AND (FR1a=3), AUTOPUNCH "1" TO AA12 AND GO TO INSTRUCTS BEFORE AA14. ELSE ASK AA12.)

AA12. Does (**CHILD**)'s mother live in the household? (NSAF D7A)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF (SC7=1 for Resp) AND (FR1a=3), AUTOPUNCH "1" TO AA14 AND GO TO INSTRUCTS BEFORE

AA16. ELSE ASK AA14.)

AA14. Does (**CHILD**)'s father live in the household? (NSAF D7C)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF AA12=2 and AA14=2, ASK AA15. ELSE GO TO INSTRUCTS BEFORE AA16.)

AA15. Does (**CHILD**)'s legal guardian live in the household?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF MORE THAN ONE CHILD AGES 3-18 IN HOUSEHOLD, ASK AA16. Else go back to AA12 and ask

for next child. If no others, go to Section A.)

AA16. Do all the remaining children AGES 3 to 18 THAT ARE RELATED TO YOU in the household have the same (**parents/legal guardians**)?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(If AA16=1, go Section A. Else go back to AA10 and ask for next child. If no others, go to Section A.)

SECTION A - HEALTH STATUS

(ASK A1, A2 & A3 CONSECUTIVELY...FIRST FOR RESPONDENT, THEN FOR INDEX CHILD.)

(Read only if "Entire 3-18 Roster" contains MORE THAN 1 individual: "Most of the remaining questions are for you and (INDEX CHILD)." This child was selected randomly from the children in your household.)

The first questions are about health.

A1. Would you say (*your/INDEX CHILD'S*) health is (READ LIST): (CTSp78, e401; NSAFpgF-1, F1)

- 1 = Excellent,
- 2 = Very good,
- 3 = Good,
- 4 = Fair, or
- 5 = Poor?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

A2. Would you say (*your/INDEX CHILD'S*) DENTAL health is (READ LIST):

- 1 = Excellent,
- 2 = Very good,
- 3 = Good,
- 4 = Fair, or
- 5 = Poor?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

A3. Would you say (*your/INDEX CHILD'S*) MENTAL health is (READ LIST):

- 1 = Excellent,
- 2 = Very good,
- 3 = Good,
- 4 = Fair, or
- 5 = Poor?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(NOW GO BACK AND RE-ASK A1-A3 SERIES FOR INDEX CHILD. IF RESP and INDEX CHILD

ALREADY ASKED A1-A3, continue to A4.)

A4. Has a doctor or other health professional ever said that you had asthma? (modified BRFSSpg9, 3.1)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

A5. What about (*INDEX CHILD*)? (modified BRFSSpg9, 3.1)

(IF NEEDED: "Has a doctor or other health professional ever said that (*INDEX CHILD*) had asthma?")

- 1 = Yes
- 2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

A6. Has a doctor or other health professional ever said that you had diabetes? (modified BRFSSpg10, 4.1)

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

A7. What about (*INDEX CHILD*)? (modified BRFSSpg10, 4.1)

(IF NEEDED: "Has a doctor or other health professional ever said that (*INDEX CHILD*) had diabetes?")

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(ASK A8 IF ANY FEMALES AGE 14-49 IN "Family Roster." ELSE GO TO INSTRUCTS BEFORE A9.)

A8. (*If Resp. female & 14 to 49, insert:* "Are you or") I/is anyone in your family pregnant?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF A8=1, ASK A8b. ELSE GO TO INSTRUCTS BEFORE A9.)

A8b. Who? Anyone else?

INSERT ALL FEMALE, 14 to 49 YEAR OLDS FROM FAMILY ROSTER

Add the following codes: "19 = Other Related HH member"

"20 = Other non-related HH member"

(IF INDEX CHILD UNDER 5 YEARS OF AGE ASK A9...ELSE GO TO A10.)

A9. Is (*INDEX CHILD*) limited in any way in activities, including play activities, because of an impairment or a physical or mental health problem?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

A10. Are you limited in any way in your ability to care for yourself, to work at a job, do housework, school work, or go to school because of an impairment or a physical or mental health problem?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(ASK A11 IF INDEX CHILD AGE 5-18...ELSE GO TO SECTION B.)

A11. What about ***(INDEX CHILD)***?

(IF NEEDED: "Is (INDEX CHILD) limited in any way in his/her ability to care for him/herself, do housework, do school work, or go to school because of an impairment or a physical or mental health problem?)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION B: HEIGHT/WEIGHT – All children AGED 3-18)

(B1-B12a ARE ASKED ONLY OF CHILDREN FROM THE "3-18 Family Roster." FIRST START WITH THE INDEX CHILD, THEN GO BACK AND ASK B1-B12a FOR REMAINING CHILDREN FROM THE "3-18 Family Roster," IF ANY. B6-B12a ARE TO BE ASKED ONLY OF THE INDEX CHILD.)

B1. How tall is ***(INDEX CHILD/CHILD NAME)*** now without shoes?

(ONLY IF NEEDED SAY: "Your best guess is fine")

- 1 = Answer in feet/inches (INTERVIEWER: RECORD WHOLE NUMBER ONLY)
- 2 = Answer in meters/centimeters (INTERVIEWER: RECORD 2 DECIMAL PLACES IF NEEDED)
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

(IF B1=8 or 9, SKIP TO B3. ELSE CONTINUE.)

B2. When was the last time ***(INDEX CHILD/CHILD NAME)***'s height was measured?

(IF NECESSARY: Your best estimate is fine.)

- 1 = 1 month or less ago
- 2 = 2 months ago
- 3 = 3 months ago
- 4 = 4-6 months ago
- 5 = over 6 months to 1 year ago
- 6 = More than a year ago
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

B3. How much does (*INDEX CHILD/CHILD NAME*) weigh now without shoes?

(ONLY IF NEEDED SAY: "Your best guess is fine")

- 1 = Answer in pounds (INTERVIEWER: RECORD 1 DECIMAL PLACE IF NEEDED)
- 2 = Answer in kilograms (INTERVIEWER: RECORD 1 DECIMAL PLACE IF NEEDED)
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

(IF B3=8 or 9, SKIP TO B5. ELSE CONTINUE.)

B4. When was the last time (*INDEX CHILD/CHILD NAME*)'s weight was measured?
(IF NECESSARY: Your best estimate is fine.)

- 1 = 1 month or less ago
- 2 = 2 months ago
- 3 = 3 months ago
- 4 = 4-6 months ago
- 5 = over 6 months to 1 year ago
- 6 = More than a year ago
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

B5. What is the year and month of birth of (*INDEX CHILD/CHILD NAME*)?

- 1 = Gave Response
- 9 = (VOL) Refused

(IF B5=1, ASK B5a and B5b. ELSE GO TO INSTRUCTS BEFORE B6.)

B5a. (INTERVIEWER: ENTER YEAR OF BIRTH) (RANGE = 1990 to 2006)

_____ Enter Year

B5b. (INTERVIEWER: SELECT MONTH OF BIRTH)

- | | |
|--------------|---------------|
| 1 = January | 7 = July |
| 2 = February | 8 = August |
| 3 = March | 9 = September |
| 4 = April | 10 = October |
| 5 = May | 11 = November |
| 6 = June | 12 = December |

(IF INDEX CHILD, CONTINUE TO B6.)

IF NOT INDEX CHILD, DISPLAY THE FOLLOWING: "Now I need to get the heights and weights of your

other children" ...***THEN GO BACK TO B1 FOR REMAINING CHILDREN BEGINNING WITH THE***

OLDEST CHILD WHO IS NOT INDEX CHILD.

IF NO MORE CHILDREN, GO TO INSTRUCTS BEFORE B13.)

B6. Compared to what you would like (*him/her*) to be, would you say (*INDEX CHILD*) is very underweight, slightly underweight, about the right weight, slightly overweight, or very overweight? (Modified from CHIS adolescent survey)

- 1 = Very underweight
- 2 = Slightly underweight
- 3 = About the right weight
- 4 = Slightly overweight
- 5 = Very overweight
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF B6=1 or 2 or 3, GO TO B11. ELSE ASK B7.)

B7. Are you trying to have (*INDEX CHILD*) lose weight?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF CHILD > 10 Yrs, ASK B8. ELSE GO TO INSTRUCTS BEFORE B9.)

B8. Is (*INDEX CHILD*) doing anything to lose weight?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(If B7 = Yes or B8 = Yes Go to B9 else go to B11.)

B9. Is (*INDEX CHILD*) eating differently to lose weight?

(IF NEEDED: For example, is (*INDEX CHILD*) eating less fat, less calories, or eating more fruits and vegetables, etc.?)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't know / Not sure
- 9 = (VOL) Refused

B10. Is (*INDEX CHILD*) using any form of physical activity to lose weight?

(IF NEEDED: For example is (*INDEX CHILD*) playing more actively, running, biking, etc.?)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't know / Not sure

9 = (VOL) Refused

B11. In the past 12 months, has a doctor, nurse or other health professional given you advice about **(INDEX CHILD)**'s weight? (IF YES: "Did they suggest **(INDEX CHILD)** lose weight, gain weight, or maintain current weight?")

- 1 = Yes, lose weight
- 2 = Yes, gain weight
- 3 = Yes, maintain current weight
- 4 = No, no advice given about weight
- 8 = (VOL) Don't Know/Not sure
- 9 = (VOL) Refused

(IF B11=1 or 2 or 3, ASK B12. ELSE GO BACK TO B1 FOR REMAINING CHILDREN BEGINNING WITH THE OLDEST CHILD WHO IS NOT THE INDEX CHILD; IF NO MORE CHILDREN, GO TO INSTRUCTS BEFORE B13.)

B12. Did they help you develop a plan to follow the advice about **(INDEX CHILD)** (if B11=1, read: "losing" / if B11=2, read: "gaining" / if B11=3, read: "maintaining") weight?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF B12=1, ASK B12a. ELSE GO TO INSTRUCTS BEFORE B13.)

B12a. Did the doctor, nurse or other health professional follow up with you at subsequent visits to see how **(INDEX CHILD)** was doing with the plan to (if B11=1, read: "lose" / if B11=2, read: "gain" / if B11=3, read: "maintain") weight?

- 1 = Yes
- 2 = No
- 8 = Don't know / Not sure
- 9 = Refused

(GO BACK TO B1 FOR REMAINING CHILDREN BEGINNING WITH THE OLDEST CHILD WHO IS NOT THE INDEX CHILD; IF NO MORE CHILDREN, GO TO INSTRUCTS BEFORE B13.)

HEIGHT/WEIGHT – RESPONDENT

(ASK FOR RESPONDENT ONLY)

B13. How tall are you without shoes?

(IF NEEDED SAY: "Your best guess is fine")

- 1 = Answer in feet/inches (INTERVIEWER: RECORD WHOLE NUMBER ONLY)
- 2 = Answer in meters/centimeters (INTERVIEWER: RECORD 2 DECIMAL PLACES IF NEEDED)
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

B14. How much do you weigh now without shoes?

(IF NEEDED SAY: "Your best guess is fine")

1 = Answer in pounds (INTERVIEWER: RECORD 1 DECIMAL PLACE IF NEEDED)

2 = Answer in kilograms (INTERVIEWER: RECORD 1 DECIMAL PLACE IF NEEDED)

8 = (VOL) Don't know

9 = (VOL) Refused

B15. Compared to what you would like to be, would you say you are very underweight, slightly underweight, about the right weight, slightly overweight, or very overweight?

1 = Very underweight

2 = Slightly underweight

3 = About the right weight

4 = Slightly overweight

5 = Very overweight

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF B15=1 or 2 or 3, go to B19. ELSE ASK B16.)

B16. Are you doing anything to lose weight?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF B16=2, GO TO B19. ELSE ASK B17.)

B17. Are you trying to eat differently to lose weight?

(IF NEEDED: For example, are you eating less fat, less calories, or eating more fruits and vegetables, etc.)

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

B18. Are you using any form of physical activity to lose weight?

(IF NEEDED: For example, are you walking, running, going to the gym etc.?)

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

B19. In the past 12 months, has a doctor, nurse or other health professional given you advice about your weight? **(IF RESP IS FEMALE (SC7=2) AND LESS THAN 50 YEARS OF AGE (SC7a<50) OR**

SC7a1=5, 6, OR 7) AND NOT CURRENTLY PREGNANT (A8=2 or A8b<>1), READ:

“Exclude any advice given if you were pregnant in the past year.”)

(IF YES: “Did they suggest you lose weight, gain weight, or maintain current weight?”)

- 1 = Yes, lose weight
- 2 = Yes, gain weight
- 3 = Yes, maintain current weight
- 4 = No, no advice given about weight
- 8 = (VOL) Don’t Know/Not sure
- 9 = (VOL) Refused

(IF B19=1 or 2 or 3, ASK B20. ELSE GO TO SECTION C.)

B20. Did they help you develop a plan to follow the advice about **(if B19=1, read: “losing” / if B19=2, read: “gaining” / if B19=3, read: “maintaining”)** weight?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don’t Know
- 9 = (VOL) Refused

(IF B20=2, GO TO SECTION C. ELSE ASK B21.)

B21. Did the doctor, nurse or other health professional follow up with you at subsequent visits to see how you were doing with the plan to **(if B19=1, read: “lose” / if B19=2, read: “gain” / if B19=3, read: “maintain”)** weight?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don’t Know
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION C: Food Environment Questions – Respondent only

READ SLOWLY: Okay, in the next section, please think of your neighborhood as the area within a 20 minute walk, a 5 minute drive, or about 1 mile in all directions around your home.

C1. How long have you lived in this neighborhood?

- 1 = Less than a year
- 2 = 1 to less than 2 Years
- 3 = 2 to less than 5 years
- 4 = 5 to less than 10 years
- 5 = 10 years or more
- 8 = (VOL) Don't know / Not sure
- 9 = (VOL) Refused

C2. Who does most of the food shopping for your family?

- 1 = respondent
- 2 = someone else
- 3 = respondent and someone else
- 8 = (VOL) Don't know / Not sure
- 9 = (VOL) Refused

C3. **(If C2=1 or 3, read: "Do you" / If C2=2 or 8 or 9, read: "Does your family shopper")** usually do most of the food shopping in YOUR neighborhood?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF C3=2, ASK C4. ELSE GO TO INSTRUCTS BEFORE C5.)

C4. What would you say is the main reason that **(you do/your family shopper does)** not shop for most of your food in your neighborhood? (READ LIST)

- 1 = No food stores in the neighborhood
- 2 = Not convenient
- 3 = Higher cost
- 4 = Poor Quality
- 5 = Lack of variety
- 6 = Lack of healthy choices
- 7 = (VOL) OTHER (Specify): _____
- 8 = (VOL) Don't know / Not sure
- 9 = (VOL) Refused

(If C3=2 or 8 or 9, say: In the next set of questions, I will ask you about the store where (you do/your family shopper does) MOST of your food shopping.

C5. Is this store a...(READ LIST)?

(Note: If Resp. says they shop at 2 or more stores equally, ask about the one that is easiest to get to.)

(Note: Target, K-Mart, Costco, Price Club and BJ's are considered "Superstores")

- 1 = Supermarket (like Shop Rite, Pathmark),
- 2 = Superstore like Wal-Mart or Sam's Club,
- 3 = Small grocery store,
- 4 = Ethnic store or bodega,
- 5 = Corner store or convenience stores like 7-11,
- 6 = or some other type of store (Specify): _____

- 8 = (VOL) Don't know / Not sure
- 9 = (VOL) Refused

C6. What would you say is the main reason that *(you shop/your family shopper shops)* for most of your food at this *(INSERT C5 RESPONSE / if C5=DK/REF, insert "store")*? Is it...(READ LIST)?

- 1 = Convenience,
- 2 = Better prices,
- 3 = Better quality, or
- 4 = A larger selection?
- 5 = (VOL) Other (SPECIFY): _____
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

C7. How easy is it for *(you/your food shopper)* to get to this store? Would you say it is very easy, somewhat easy, somewhat difficult, or very difficult?

- 1 = Very easy
- 2 = Somewhat easy
- 3 = Somewhat difficult
- 4 = Very difficult
- 8 = Don't know
- 9 = Refused

C8. How available are fresh fruits and vegetables at this store? Would you say very available, somewhat available, somewhat unavailable, or very unavailable?

- 1 = Very Available
- 2 = Somewhat Available
- 3 = Somewhat Unavailable
- 4 = Very Unavailable
- 5 = (VOL) Store does NOT sell fresh fruits and vegetables
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF C8=5, SKIP TO C12. ELSE CONTINUE.)

C9. Is there a large selection of good quality fresh fruits and vegetables at this store? Would you say a very large selection, somewhat large selection, somewhat limited selection, or very limited selection?

- 1 = Very large selection
- 2 = Somewhat large selection
- 3 = Somewhat limited selection
- 4 = Very limited selection
- 8 = (VOL) Don't Know / Not sure

9 = (VOL) Refused

C10. How expensive are fresh fruits and vegetables at this store? Would you say very expensive, somewhat expensive, somewhat inexpensive, or very inexpensive?

- 1 = Very Expensive
- 2 = Somewhat Expensive
- 3 = Somewhat Inexpensive
- 4 = Very Inexpensive
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF C10=1 or 2, ASK C11. ELSE GO TO C12.)

C11. How often does the cost of fresh fruits and vegetables at this store keep *(you/your food shopper)* from buying them? (READ LIST)

- 1 = Always,
- 2 = Often,
- 3 = Sometimes,
- 4 = Rarely, or
- 5 = Never?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

C12. How available are low-fat foods such as low fat milk and lean cuts of meat at this store? Would you say very available, somewhat available, somewhat unavailable, or very unavailable?

- 1 = Very Available
- 2 = Somewhat Available
- 3 = Somewhat Unavailable
- 4 = Very Unavailable
- 8 = (VOL) Don't know / Not sure
- 9 = (VOL) Refused

C13. Is there a large selection of good quality low-fat foods at this store? Would you say a very large selection, somewhat large selection, somewhat limited selection, or very limited selection?

- 1 = Very large selection
- 2 = Somewhat large selection
- 3 = Somewhat limited selection
- 4 = Very limited selection
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

C14. How expensive are low-fat foods at this store? Would you say very expensive, somewhat expensive, somewhat inexpensive, or very inexpensive?

- 1 = Very Expensive
- 2 = Somewhat Expensive
- 3 = Somewhat Inexpensive

- 4 = Very Inexpensive
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF C14=1 or 2, ASK C15 ELSE GO TO C16.)

C15. How often does the cost of low-fat foods at this store keep *(you/your food shopper)* from buying them? **(READ LIST)**

- 1 = Always
- 2 = Often
- 3 = Sometimes
- 4 = Rarely
- 5 = Never
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

C16. How *(do you/does your family shopper)* usually travel to this **(INSERT C5 RESPONSE / if C5=DK/REF, insert "store")**? **(DO NOT READ LIST)**

- 1 = Drive a car
- 2 = Get a ride
- 3 = Take the bus
- 4 = Take the train
- 5 = Take a taxi
- 6 = Walk
- 7 = Bike
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

C17. How long does it usually take *(you/your food shopper)* to get there when *(you/they)* **(INSERT C16 RESPONSE / if C16=DK/REF, insert "go to this store")**?

(RANGE = 1 to 120; 1=Less than 1 minute; 120= 120 minutes or more; 121=DK; 122=REF)

_____ minutes

(IF C16<>1 and C16<>2, ASK C18. ELSE GO TO C20.)

C18. Is there ever a car available for your family's food shopping?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

(IF C18=1, ASK C19. ELSE GO TO C20.)

C19. Is it usually or only sometimes available?

- 1 = Usually

- 2 = Sometimes
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

(IF C8=5, SKIP TO INSTRUCTS BEFORE C21. ELSE ASK C20.)

C20. In the past month, did ***(you/your family shopper)*** usually buy most of your fruits and vegetables at the same store where ***(you/they)*** do most of your shopping?

(IF NEEDED, STATE THAT WE MEAN ALL KINDS of fruits and Vegetables -- fresh, canned, frozen)

- 1 = Yes, same store
- 2 = Somewhere Else
- 3 = (VOL) Buy 50/50 from same store and Somewhere Else
- 4 = (VOL) Don't buy fruits and vegetables
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF (C8=5) or (C20=2 or 3), ASK C21. ELSE GO TO C24.)

C21. ***(If C20=2 or 3, read:*** Other than your usual food shopping store, what kind of place is that?)

(IF C8=5, read: In the past month, where did you usually buy fruits and vegetables, or did you not buy any?)

(IF NEEDED, SAY:) Would you say at a supermarket, a superstore like Wal-Mart or Sam's Club, small grocery store, market, bodega, ethnic store (like an Asian market); or a convenience store such as a gas station, a corner store; or a farmer's market or fruit and vegetable store?

(Note: Target, K-Mart, Costco, Price Club and BJ's are considered "Superstores")

- 1 = Supermarket (like Shop Rite, Pathmark),
- 2 = Superstore like Wal-Mart or Sam's Club,
- 3 = Small grocery store,
- 4 = Ethnic store or bodega,
- 5 = Corner store or convenience stores like 7-11,

- 6 = Farmer's market or fruit and vegetable store/produce store
- 7 = or some other type of store (Specify): _____
- 8 = (VOL) Did NOT buy fruits and vegetables
- 9 = (VOL) Don't know / Not sure
- 10 = (VOL) Refused

C22. How often (*do you/does your family shopper*) shop at this store for fruits and vegetables?

- 1 = Gave times per week (RANGE 1-7)
- 2 = Gave times per month (RANGE 1-31)
- 3 = Gave times per year (RANGE 1-365)
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

C23. What is the main reason (*you shop/your family shopper shops*) at this store? Is it...(READ LIST)?

- 1 = Convenience,
- 2 = Better prices,
- 3 = Better quality, or
- 4 = A larger selection?
- 17 = (VOL) Other (SPECIFY) _____
- 18 = (VOL) Don't Know
- 19 = (VOL) Refused

C24. Still thinking about your neighborhood, that is the area within a 20 minute walk, a 5 minute drive, or about 1 mile in all directions around your home, are there any fast-food restaurants, delis, pizza, burger, taco or chicken places where you pay before you eat in your neighborhood?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

C26. Are there any full-service restaurants in your neighborhood?

(ONLY IF NEEDED: "Examples include a diner, Denny's, or Friendly's")

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

I will now ask you a few questions about food items available in your home. Please answer yes or no for each of the questions. In the last week, did you have...

(RANDOMIZE ORDER OF C28a-C28e; ALWAYS ASK C28f LAST)

C28a. Fresh, frozen, or canned vegetables available in your home?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't know

9 = (VOL) Refused

C28b. 1% or skim milk available in your home?

1 = Yes

2 = No

8 = (VOL) Don't know

9 = (VOL) Refused

C28c. Whole grain bread or whole grain pasta available in your home?

(IF NEEDED: "Include any whole grain, whole wheat, rye, etc. bread or pasta.")

1 = Yes

2 = No

8 = (VOL) Don't know

9 = (VOL) Refused

C28d. Cookies, cakes, or candy that were available in your home?

1 = Yes

2 = No

8 = (VOL) Don't know

9 = (VOL) Refused

C28e. Chips or Nachos or Doritos available in your home?

1 = Yes

2 = No

8 = (VOL) Don't know

9 = (VOL) Refused

C28f. Fresh, canned or dried fruit on the kitchen counter or somewhere easy for your child to get to?

(IF NEEDED, PROBE WITH: "In your home?")

1 = Yes

2 = No

8 = (VOL) Don't know

9 = (VOL) Refused

Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

C29a. In general, I eat healthy. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

C29b. In general, (*INDEX CHILD*) eats healthy. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

C30. Which one of the following statements best describes the food eaten by your family? Do you have...(READ LIST)?

- 1 = Enough food to eat,
- 2 = Sometimes NOT enough to eat, or
- 3 = Often NOT enough to eat?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION D: PHYSICAL ENVIRONMENT FOR ACTIVITY – Respondent only unless otherwise noted

For the next few agree/disagree statements, as before, please think of your neighborhood as the area within a 20 minute walk, a 5 minute drive, or about 1 mile in all directions around your home.

(RANDOMIZE ORDER OF D1a-D1f...do NOT rotate D1g or D1h)

D1a. My neighborhood offers many opportunities to be physically active. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1b. My neighborhood is a close-knit or unified neighborhood. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1c. People around here are willing to help their neighbors. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1d. People in this neighborhood generally don't get along with each other. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1e. I trust people in this neighborhood. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1f. People in this neighborhood do not share the same values. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1g. On the whole, I get enough exercise or physical activity. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree
- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D1h. On the whole, (*INDEX CHILD*) gets enough exercise or physical activity. Do you Agree or Disagree? Strongly or Somewhat?

- 1 = Strongly agree
- 2 = Somewhat agree
- 3 = Somewhat disagree

- 4 = Strongly disagree
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

D3. Thinking about TRAFFIC, how safe is it to walk, run, bike, or play in your neighborhood? Would you say very safe, somewhat safe, somewhat unsafe, or very unsafe?

- 1 = Very Safe
- 2 = Somewhat Safe
- 3 = Somewhat Unsafe
- 4 = Very Unsafe
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D2. Thinking about CRIMINAL ACTIVITY, how safe is it to walk, run, bike, or play in your neighborhood? Would you say very safe, somewhat safe, somewhat unsafe, or very unsafe?

(NOTE: If ask whether we mean "at night" or "during the day," probe..."We simply mean in general or overall.")

- 1 = Very Safe
- 2 = Somewhat Safe
- 3 = Somewhat Unsafe
- 4 = Very Unsafe
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D4. How pleasant is it to walk, run, bike, or play in your neighborhood? For example, are there trees and proper lighting, no graffiti, or abandoned buildings? Would you say very pleasant, somewhat pleasant, somewhat unpleasant, or very unpleasant?

- 1 = Very Pleasant
- 2 = Somewhat Pleasant
- 3 = Somewhat Unpleasant
- 4 = Very Unpleasant
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D5. For walking after dark, are there working street lights on most streets in your neighborhood?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D6. Are there sidewalks in most areas of your neighborhood?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF D6=2, GO TO D10. ELSE ASK D7.)

D7. Are the sidewalks generally in good, fair, or poor condition?

- 1 = Good
- 2 = Fair
- 3 = Poor
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D8. How often does (**INDEX CHILD**) use sidewalks in your neighborhood to walk, run, bike, or play? Often, sometimes, rarely, or never?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D9. How often do you use sidewalks in your neighborhood to walk, run, or bike? Often, sometimes, rarely, or never?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D10. Are there parks in your neighborhood where children can walk, run, bike, or play?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF D10=2, GO TO D15. ELSE ASK D11.)

D11. Thinking about CRIMINAL ACTIVITY, how safe are these parks? Would you say very safe, somewhat safe, somewhat unsafe, or very unsafe?

- 1 = Very Safe
- 2 = Somewhat Safe
- 3 = Somewhat Unsafe
- 4 = Very Unsafe
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D12. How pleasant are the parks in your neighborhood? For example, are there trees, proper lighting, no graffiti or trash. Would you say very pleasant, somewhat pleasant, somewhat unpleasant, or very unpleasant?

- 1 = Very Pleasant

- 2 = Somewhat Pleasant
- 3 = Somewhat Unpleasant
- 4 = Very Unpleasant
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D13. How often does (*INDEX CHILD*) use parks in your neighborhood to walk, run, bike, or play?
Often,
sometimes, rarely, or never?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D14. How often do you use parks in your neighborhood to walk, run, or bike? Often, sometimes,
rarely,
or never?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D15. Are there indoor or outdoor exercise facilities such as walking or running tracks, basketball or
tennis
courts, swimming pool, or school gym in the parks or elsewhere in your neighborhood?

(IF NEEDED: Include public or private facilities)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF D15=2, GO TO D22. ELSE ASK D16.)

D16. How convenient are the hours during which these exercise facilities are available for use? Would
you say very convenient, somewhat convenient, somewhat inconvenient, or very inconvenient?

(NOTE: If asked "convenient for ME, or for the KIDS, say, "Just in general.")

- 1 = Very Convenient
- 2 = Somewhat Convenient
- 3 = Somewhat Inconvenient
- 4 = Very Inconvenient
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D17. Thinking about CRIMINAL ACTIVITY, how safe are these facilities? Would you say very safe,
somewhat safe, somewhat unsafe, or very unsafe?

- 1 = Very Safe
- 2 = Somewhat Safe
- 3 = Somewhat Unsafe
- 4 = Very Unsafe
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D18. In what kind of condition are these facilities (clean, well-maintained, proper lighting, etc)? Would you say very good condition, somewhat good condition, somewhat poor condition, or very poor condition?

- 1 = Very Good Condition
- 2 = Somewhat Good Condition
- 3 = Somewhat Poor Condition
- 4 = Very Poor Condition.
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D19a. Do these facilities charge a fee?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF D19a=1, ASK D19. ELSE GO TO D20.)

D19. How affordable are these exercise facilities? Would you say very affordable, somewhat affordable, somewhat unaffordable, very unaffordable?

- 1 = Very affordable
- 2 = Somewhat affordable
- 3 = Somewhat unaffordable
- 4 = Very unaffordable
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D20. Other than during regular school hours, how often does ***(INDEX CHILD)*** use these indoor or outdoor exercise facilities in your neighborhood? Often, sometimes, rarely, or never?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D21. How often do you use these indoor or outdoor exercise facilities in your neighborhood? Often,

sometimes, rarely, or never?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

D22. How often does (**INDEX CHILD**) walk to stores, libraries, or recreational facilities in your neighborhood? Often, sometimes, rarely, or never, or are there no such places to walk in the neighborhood? (IF NEEDED: "This can be either alone or with someone else.")

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 5 = No such places in the neighborhood
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF D22=5, GO TO SECTION E. ELSE ASK D23.)

D23. How often do you walk to stores, libraries, or recreational facilities in your neighborhood? Often, sometimes, rarely, or never, or are there no such places to walk in the neighborhood?

- 1 = Often
- 2 = Sometimes
- 3 = Rarely
- 4 = Never
- 5 = No such places in the neighborhood
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION E: BEHAVIOR – CHILD - FOOD

E1. What grade in school is (**INDEX CHILD**)?

- 1 = 1st Grade
- 2 = 2nd Grade
- 3 = 3rd Grade
- 4 = 4th Grade
- 5 = 5th Grade
- 6 = 6th Grade
- 7 = 7th Grade
- 8 = 8th Grade

- 9 = 9th Grade
- 10 = 10th Grade
- 11 = 11th Grade
- 12 = 12th Grade
- 13 = Pre-school
- 14 = Kindergarten
- 15 = Graduated HS/Entering College or Tech/Trade/Nursing School
- 16 = (VOL) Not in school
- 17 = (VOL) Home Schooled
- 18 = Other, (SPECIFY)
- 19 = (VOL) Don't Know
- 20 = (VOL) Refused

(IF E1=15 or 16 or 17 or 19 or 20, GO TO E4. ELSE GO TO INSTRUCTS BEFORE E1a.)

(IF SC2a=1 (CAMDEN), ASK E1a. ELSE GO TO INSTRUCTS BEFORE E1b.)

E1a. What is the name of the school that ***(INDEX CHILD)*** currently attends?

(IF CHILD HAS CLASSES AT MULTIPLE LOCATIONS, PROBE: "At which one does ***(INDEX CHILD)*** have MOST of his/her classes?")

(ENTER APPROPRIATE CODE FROM BLUE "TACK UP" SHEET)

- 1 = BONSCALL
- 2 = BRIMM MEDICAL ARTS HIGH SCHOOL
- 3 = CAMDEN ACADEMY CHARTER HIGH SCHOOL
- 4 = CAMDEN CAP
- 5 = CAMDEN FORWARD SCHOOL
- 6 = CAMDEN HIGH SCHOOL
- 7 = CAMDEN HOUSE
- 8 = CAMDEN SIP
- 9 = CAMDEN VIRTUA KIDS IN TRANSITION
- 10 = CAMDEN'S PROMISE CS
- 11 = CATTO DEMONSTRATION SCHOOL
- 12 = COOPERS POYNT
- 13 = CRAMER
- 14 = CREATIVE & PRFRMG ARTS HIGH SCHOOL
- 15 = D.U.E. SEASON CS
- 16 = DAVIS ELEMENTARY
- 17 = DUDLEY
- 18 = EARLY CHILDHOOD DEVEL CENTER
- 19 = EAST CAMDEN MIDDLE SCHOOL
- 20 = ENVIRONMENT COMMUNITY CS
- 21 = FOREST HILL
- 22 = FREEDOM ACADEMY CS
- 23 = HATCH MIDDLE SCHOOL

- 24 = HOLY NAME SCHOOL
- 25 = JRC ALTERNATIVE SCHOOL
- 26 = LANNING SQUARE
- 27 = LEAP ACADEMY UNIVERSITY CS
- 28 = THE LEARNING TREE
- 29 = MCGRAW
- 30 = MET EAST HIGH SCHOOL
- 31 = MORGAN VILLAGE MIDDLE SCHOOL
- 32 = MT OLIVET SEVENTH-DAY ADV SCHOOL
- 33 = OLD CATTO ELEMENTARY
- 34 = PARKSIDE
- 35 = POWELL
- 36 = PYNE POYNT FAMILY SCHOOL
- 37 = R C MOLINA ELEM SCHOOL
- 38 = RILETTA CREAM ELEM SCHOOL
- 39 = RIVERFRONT STATE PRISON
- 40 = SACRED HEART GRADE SCHOOL
- 41 = THE SAN MIGUEL SCHOOL
- 42 = SHARP
- 43 = SO CAMDEN ALTERNATIVE SCHOOL
- 44 = ST ANTHONY OF PADUA SCHOOL
- 45 = ST JOSEPH PRO-CATHEDRAL SCHOOL
- 46 = SUMNER
- 47 = U. S. WIGGINS
- 48 = URBAN PROMISE ACADEMY
- 49 = VETERANS MEMORIAL MIDDLE SCHOOL
- 50 = WASHINGTON
- 51 = WHITTIER
- 52 = WILSON
- 53 = WOODROW WILSON HIGH SCHOOL
- 54 = YORKSHIP
- 197 = OTHER (SPECIFY)
- 198 = (VOL) DON'T KNOW
- 199 = (VOL) REFUSED

(NOW GO TO E2.)

(IF SC2a=2 (NEWARK), ASK E1b. ELSE GO TO INSTRUCTS BEFORE E1c.)

E1b. What is the name of the school that ***(INDEX CHILD)*** currently attends?

(IF CHILD HAS CLASSES AT MULTIPLE LOCATIONS, PROBE: "At which one does (INDEX CHILD) have MOST of his/her classes?")

(ENTER APPROPRIATE CODE FROM GREEN "TACK UP" SHEET)

- 1 = ABINGTON AVE
- 2 = ACADEMY OF ST. BENEDICT
- 3 = ACADEMY OF VOC CAREERS
- 4 = ALEXANDER ST
- 5 = AMERICAN HISTORY HIGH
- 6 = ANN ST
- 7 = ARTS
- 8 = AVON AVE
- 9 = BARRINGER
- 10 = BELMONT RUNYON
- 11 = BETHANY CHRISTIAN ACADEMY
- 12 = BETHEL CHRISTIAN ACADEMY
- 13 = BLESSED SACRAMENT SCHOOL
- 14 = BOYLAN EARLY CHILDHOOD CT
- 15 = BRAGAW AVE
- 16 = BRANCH BROOK SCHOOL
- 17 = BROADWAY
- 18 = BRUCE ST
- 19 = BURNET ST
- 20 = CALVARY CHRISTIAN SCHOOL
- 21 = CAMDEN MIDDLE
- 22 = CAMDEN ST
- 23 = CENTRAL
- 24 = THE CHAD SCHOOL/THE BLACK YOUT
- 25 = CHAD SCIENCE ACADEMY
- 26 = CHANCELLOR AVE
- 27 = CHANCELLOR AVE ANNEX
- 28 = CHEN SCHOOL
- 29 = THE CHILDRENS ACADEMY
- 30 = CLEVELAND
- 31 = CLINTON AVE
- 32 = DAYTON ST
- 33 = DELIVERANCE CHRISTIAN SCHOOL
- 34 = DISCOVERY CS
- 35 = DR E ALMA FLAGG
- 36 = DR WILLIAM H HORTON
- 37 = EARLY CHILDHOOD PROGRAM
- 38 = EAST NEWARK PUBLIC
- 39 = EAST SIDE
- 40 = EIGHTEENTH AVE

41 = ELLIOTT ST
42 = ESSEX CO. YOUTH HOUSE
43 = ESSEX CTY V N 13TH ST NWK
44 = ESSEX REGIONAL SCHOOL
45 = ESSEX RGC
46 = FIFTEENTH AVE
47 = FIRST AVENUE
48 = FOURTEENTH AVENUE
49 = FRANKLIN
50 = FULL GOSPEL CHRISTIAN ACADEMY
51 = GEORGE WASHINGTON CARVER
52 = GRAY CS
53 = GREATER NEWARK ACADEMY CS
54 = GROWING GARDEN PRE-SCH & KNG
55 = HARRIET TUBMAN
56 = HAWKINS ST
57 = HAWTHORNE AVE
58 = JERSEY PREPARATORY SCHOOL
59 = JOHN F KENNEDY
60 = JUST US KIDS DAY CARE CENTER
61 = LADY LIBERTY ACADEMY CS
62 = LAFAYETTE ST
63 = LINCOLN
64 = LINK COMMUNITY SCHOOL
65 = LOUISE A. SPENCER
66 = LOVE CENTER DAY CARE CENTER
67 = LUIS MUNOZ MARIN MIDDLE
68 = MADISON ELEM.
69 = MALCOLM X SHABAZZ HIGH
70 = MAPLE AVE SCHOOL
71 = MARIA L. VARISCO-ROGERS CS
72 = MARION P. THOMAS CS
73 = MARTIN LUTHER KING JR
74 = MCKINLEY
75 = MILLER ST
76 = MIRACLE TEMPLE DAY CARE CENTER
77 = MORTON ST
78 = MT VERNON
79 = NJ REGIONAL DAY SCH-NEWARK
80 = NEW HORIZONS COMM. CS
81 = NEW LIFE CHILD CARE LEARNING CENTER
82 = NEWARK BOYS CHORUS SCHOOL

83 = NEWARK CHRISTIAN SCHOOL
84 = NEWARK DAY CENTER
85 = NEWARK VOCATIONAL H S
86 = NEWTON ST
87 = NORTH STAR ACAD. CS OF NEWARK
88 = NORTH WARD CHILD DEVELOPMENT CENTER
89 = NORTHERN STATE PRISON
90 = OLIVER ST
91 = OUR LADY-GOOD COUNSEL SCHOOL
92 = OUR LADY OF GOOD COUNSEL HIGH SCHOOL
93 = PESHINE AVE
94 = PROVISION OF PROMISE ACADEMY
95 = QUEEN OF ANGELS
96 = QUITMAN COMMUNITY SCHOOL
97 = RAFAEL HERNANDEZ SCHOOL
98 = RENAISSANCE ACADEMY
99 = RIDGE ST
100 = RISING STAR LEARNING CENTER
101 = ROBERT TREAT ACADEMY CS
102 = ROBERTO CLEMENTE
103 = ROSEVILLE AVE SCHOOL
104 = REFUGE OF HOPE
105 = SACRED HEART ELEMENTARY SCHOOL
106 = SAMUEL L BERLINER
107 = SCIENCE HIGH
108 = SHILOH RAINBOW ACADEMY INC.
109 = SOUTH SEVENTEENTH ST
110 = SOUTH ST
111 = SPEEDWAY AVE
112 = ST BENEDICT'S PREP SCHOOL
113 = ST CASIMIE ACADEMY
114 = ST FRANCIS XAVIER
115 = ST JAMES PREPARATORY SCHOOL
116 = ST JOHN THE BAPTIST UKRAINI
117 = ST LUCY FILIPPINI ACADEMY
118 = ST LUCY SCHOOL
119 = ST MARY ELEMENTARY SCHOOL
120 = ST MICHAEL SCHOOL
121 = ST PATRICK'S SCHOOL
122 = ST PHILIPS ACADEMY
123 = ST ROCCO SCHOOL
124 = ST ROSE OF LIMA SCHOOL
125 = ST VINCENT ACADEMY

- 126 = SUSSEX AVE
- 127 = TEAM ACADEMY CHARTER SCHOOL
- 128 = TECHNOLOGY HIGH
- 129 = TENDER CARE
- 130 = THIRTEENTH AVE
- 131 = UNITED ACADEMY
- 132 = UNIVERSITY HEIGHTS CS
- 133 = UNIVERSITY HIGH
- 134 = VAILSBURG CHRISTIAN ACADEMY
- 135 = VAILSBURG MIDDLE SCHOOL
- 136 = WEEQUAHIC
- 137 = WEEQUAHIC DAY NURSERY & SCHOOL
- 138 = WEST MARKET STREET CENTER
- 139 = WEST SIDE HIGH
- 140 = WILLIAM H BROWN ACADEMY
- 141 = WILSON AVE
- 142 = ZION LEARNING CENTER
- 197 = OTHER (SPECIFY)
- 198 = (VOL) DON'T KNOW
- 199 = (VOL) REFUSED

(NOW GO TO E2.)

(IF SC2a=3 (NEW BRUNSWICK), ASK E1c. ELSE GO TO INSTRUCTS BEFORE E1d.)

E1c. What is the name of the school that ***(INDEX CHILD)*** currently attends?

(IF CHILD HAS CLASSES AT MULTIPLE LOCATIONS, PROBE: "At which one does ***(INDEX CHILD)*** have MOST of his/her classes?")

(ENTER APPROPRIATE CODE FROM PINK "TACK UP" SHEET)

- 1 = A CHESTER REDSHAW
- 2 = ALTERNATIVE SCHOOL
- 3 = THE CHILDREN'S CENTER
- 4 = GREATER BRUNSWICK CS
- 5 = GREATER NEW BRUNSWICK DAY CARE
- 6 = JOHNSON & JOHNSON CHILD DEVELOPMENT
- 7 = LINCOLN
- 8 = LIVINGSTON
- 9 = LIVINGSTON AVE CHILD DEVELOPMENT CENTER
- 10= LORD STIRLING
- 11 = MAE J STRONG CHILD DEVELOPMENT CENTER
- 12 = MCKINLEY COMM
- 13 = MIDDLESEX CO. YOUTH CTR.

- 14 = N.B HEALTH AND TECHNOLOGY
- 15 = N.B. MIDDLE SCHOOL
- 16 = NEW BRUNSWICK HIGH
- 17 = PAUL ROBESON COMM
- 18 = REDSHAW
- 19 = ROOSEVELT ELEM
- 20 = ST MARY OF MT VIRGIN SCHOOL
- 21 = ST PETER HIGH SCHOOL
- 22 = ST PETER THE APOSTLE ELEMENTARY
- 23 = WOODROW WILSON
- 197 = OTHER (SPECIFY)
- 198 = (VOL) DON'T KNOW
- 199 = (VOL) REFUSED

(NOW GO TO E2.)

(IF SC2a=4 (TRENTON), ASK E1d. ELSE GO TO INSTRUCTS BEFORE E1e.)

E1d. What is the name of the school that ***(INDEX CHILD)*** currently attends?

(IF CHILD HAS CLASSES AT MULTIPLE LOCATIONS, PROBE: "At which one does (INDEX CHILD) have MOST of his/her classes?")

(ENTER APPROPRIATE CODE FROM YELLOW "TACK UP" SHEET)

- 1 = AFRIKAN PEOPLES ACTION SCHOOL
- 2 = ALBERT E GRICE MIDDLE
- 3 = ANNE KLIEN FORENSIC CENTER
- 4 = CADWALADER
- 5 = CENTRAL RECEPTION AND ADJUSTMENT FACILITY
- 6 = COLUMBUS
- 7 = DAYLIGHT/TWILIGHT H S
- 8 = EDISON PREP
- 9 = EMILY C REYNOLDS MIDDLE
- 10 = EMILY FISHER CS OF ADV. STUDIE
- 11 = EWING RESIDENTIAL TREATMENT CENTER
- 12 = FAMILY GUIDANCE CENTER-CHILDREN
- 13 = FRANKLIN
- 14 = GEORGE E. WILSON
- 15 = GRACE A DUNN MIDDLE SCH
- 16 = GRANT
- 17 = GREENWOOD
- 18 = GREGORY
- 19 = HAMILTON EAST-STEINERT
- 20 = HAMILTON NORTH-NOTTINGHAM

21 = HARRISON
22 = HEDGEPEETH-WILLIAMS SCH
23 = HOLY ANGELS SCHOOL
24 = HOLY CROSS SCHOOL
25 = IMMACULATE CONCEPTION SCHOOL
26 = INCARNATION ELEMENTARY SCHOOL
27 = INTERNATIONAL CS OF TRENTON
28 = JEFFERSON
29 = JOSEPH F CAPPELLO SCHOOL
30 = JOYCE KILMER
31 = KISTHARDT
32 = KLOCKNER
33 = KUSER
34 = LALOR
35 = LANGTREE
36 = LUIS MUNOZ-RIVERA ELEM
37 = MCGALLIARD
38 = MCVS ASSUNPINK CENT
39 = MCVS PERFORMING ARTS
40 = MEADOW VIEW JUNIOR ACADEMY
41 = MERCER CO. YOUTH DET. CTR.
42 = MERCER JR/SR HIGH SCHOOL
43 = MERCER REGIONAL SCHOOL
44 = MERCERVILLE
45 = MONUMENT
46 = MORGAN
47 = MOTT
48 = MT SINAI SEVENTH-DAY ADVENTIST SCHOOL
49 = N J REG DAY-HAMILTON
50 = NEW JERSEY STATE PRISON
51 = OFFICE OF EDUCATION ADMINISTRATIVE OFFICE
52 = OFFICE SYSTEMS
53 = OUR LADY OF SORROWS SCHOOL
54 = P.J. HILL
55 = PARKER
56 = PERKINS CHRISTIAN INSTITUTE
57 = RICHARD C CROCKETT MIDDLE
58 = RING KINDERGARTEN
59 = ROBBINS
60 = ROBINSON
61 = SACRED HEART SCHOOL-TRENTON
62 = SAYEN

- 63 = SR GEORGINE SCHOOL
- 64 = ST GREGORY THE GREAT
- 65 = ST RAPHAEL SCHOOL
- 66 = STOKES
- 67 = SUNNYBRAE
- 68 = TRENTON CENTRAL HIGH
- 69 = TRENTON COMMUNITY CS
- 70 = TRENTON PSYCHIATRIC HOSPITAL
- 71 = TRINITY EPISCOPAL ACADEMY
- 72 = UNI HTS/HOWARD D MORRISON
- 73 = VILLA VICTORIA ACADEMY
- 74 = VILLAGE CS
- 75 = WASHINGTON
- 76 = WILSON
- 77 = YARDVILLE
- 197 = OTHER (SPECIFY)
- 198 = (VOL) DON'T KNOW
- 199 = (VOL) REFUSED

(NOW GO TO E2.)

(IF SC2a=5 (VINELAND), ASK E1e. ELSE GO TO E2.)

E1e. What is the name of the school that ***(INDEX CHILD)*** currently attends?

(IF CHILD HAS CLASSES AT MULTIPLE LOCATIONS, PROBE: "At which one does ***(INDEX CHILD)*** have MOST of his/her classes?")

(ENTER APPROPRIATE CODE FROM WHITE "TACK UP" SHEET)

- 1 = ANTHONY ROSSI INTER. SCH
- 2 = CAA GRAPE ST PROGRAM
- 3 = CAA WOOD STREET PROGRAM
- 4 = CREATIVE ACHIEVEMENT ACD#1
- 5 = CREATIVE ACHIEVEMENT ACADEMY #3
- 6 = CUMBERLAND CHRISTIAN SCHOOL
- 7 = CUMBERLAND REGIONAL SCHOOL
- 8 = CUNNINGHAM
- 9 = DANE BARSE
- 10 = D'IPPOLITO INTERMEDIATE
- 11 = DR. WILLIAM MENNIES
- 12 = EARLY LEARNING CENTER
- 13 = EAST VINELAND
- 14 = THE ELLISON SCHOOL

- 15 = EMMANUEL DAY SCHOOL
- 16 = JOHN H WINSLOW
- 17 = JOHNSTONE
- 18 = LANDIS INTERMEDIATE SCH
- 19 = LITTLE ACRES LEARNING CENTER
- 20 = MARIE DURAND
- 21 = MAURICE FELS
- 22 = NASH EDUCATION CENTER
- 23 = OAK AND MAIN
- 24 = PAULINE J. PETWAY
- 25 = SACRED HEART HIGH SCHOOL
- 26 = SACRED HEART REGIONAL GRAMMAR
- 27 = SOUTH VINELAND
- 28 = ST. FRANCIS OF ASSISI
- 29 = ST MARY'S REGIONAL SCHOOL
- 30 = T.W. WALLACE MIDDLE SCH
- 31 = VETERANS MEMORIAL INT SCH
- 32 = VINELAND CHILDREN'S RESIDENTIAL CENTER
- 33 = VINELAND MENNONITE SCHOOL
- 34 = VINELAND SR HIGH-NORTH/SOUTH
- 197 = OTHER (SPECIFY)
- 198 = (VOL) DON'T KNOW
- 199 = (VOL) REFUSED

E2. Regardless of whether or not (*INDEX CHILD*) eats food provided by his/her school, how would you rate the nutritional quality of foods offered at (*INDEX CHILD*)'s school? Would you say very unhealthy, somewhat unhealthy, somewhat healthy, or very healthy?

- 1 = Very Unhealthy
- 2 = Somewhat Unhealthy
- 3 = Somewhat Healthy
- 4 = Very Healthy
- 5 = (VOL) School does not provide food
- 8 = (VOL) Don't Know / Not sure
- 9 = (VOL) Refused

(IF E2 > 5, ASK E3a. ELSE GO TO INSTRUCTS BEFORE E3.)

E3a. On most school days, does (*INDEX CHILD*) have a lunch served by the school?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF E3a=1, GO TO E4. ELSE ASK E3.)

E3. On most school days, does (**INDEX CHILD**) bring lunch from home, buy lunch at an outside restaurant or store, or buy it at a vending machine?

(IF NEEDED: Which of these ways does (**he/she**) get lunch at school most often?)

- 1 = Brings lunch from home
- 3 = Buys at an outside restaurant or store (whether before school or at lunch time)
- 4 = Buys at vending machine (whether on or off campus)
- 5 = (VOL) Does not eat lunch
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

The next few questions are about different kinds of foods (**INDEX CHILD**) ate or drank during the past month. Your best guess is fine. You can tell me number of times per day, per week, or per month.

E4. How often did (**INDEX CHILD**) drink 100% PURE fruit juices such as orange, apple, or grape juice? Do NOT include fruit-flavored drinks with added sugar like Hi-C, Gatorade, or fruit punch. You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E5. Not counting juice, how often did (**INDEX CHILD**) eat fruit? Count fresh, frozen, or canned fruit.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: “Your best guess is fine. Include apples, bananas, applesauce, oranges, fruit salad, watermelon, cantaloupe or musk melon, papaya, mangos, grapes, and berries such as blueberries and strawberries.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E6. How often did (**INDEX CHILD**) eat a green leafy or lettuce SALAD, with or without other vegetables?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: “Such as American or Western-type RAW salads with leaf lettuce, romaine, mixed-greens, and spinach.”)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E7. NOT INCLUDING FRENCH FRIES OR OTHER FRIED POTATOES, how often did (**INDEX CHILD**) eat any other kind of POTATOES such as baked, boiled, mashed potatoes, or potato salad? You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: Fried potatoes include French fries, potato chips, tater tots, home fries, and hash brown potatoes. This includes potatoes prepared in any fashion such as baked, boiled, mashed, au-gratin, or scalloped. It includes potatoes prepared in other dishes such as potato salad. Include white, yellow, red-skinned, yams, and sweet potatoes.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E8. How often did (**INDEX CHILD**) eat cooked or canned DRIED beans, such as refried beans, baked

beans, bean soup, tofu, or lentils?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: Include round or oval beans such as navy, Northern, kidney, black, pinto, soy beans, split peas, cow peas, garbanzo beans, or lentils cooked this way. Do NOT include long green beans such as string beans or pole beans.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

- E9. Still thinking about the past month...Not including what you just told me about, how often did (**INDEX CHILD**) eat OTHER vegetables such as tomatoes, green beans, carrots, corn, cooked greens, sweet potatoes, broccoli, or any other kinds of vegetables?

(IF ASKED: Do not count any of the following as vegetables: lettuce salads, potatoes, beans, or anything you have already counted.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

- E13. How often did (**INDEX CHILD**) eat at a fast food restaurant, deli, pizza, burger, taco or chicken place where you pay before you eat?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: You can tell me number of times per day, per week, or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 - 3)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month

- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF E13=1 or 2 or 3, ASK E13a. IF E13=4, ASK E13b. ELSE GO TO E14.)

E13a. How many of these (*insert from E13*) times per (*day/week/month*) did (*INDEX CHILD*) eat healthy choices, such as low-calorie or low-fat items or salads at these places?

- 1 = Gave Response (RANGE=0 to 30) (*can not exceed answer from E13*)
- 2 = (VOL) No such option available
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(NOW GO TO E14.)

E13b. Did (*INDEX CHILD*) eat healthy choices, such as low-calorie or low-fat items or salads at these places?

- 1 = Yes
- 2 = No
- 3 = (VOL) No such option available
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E14. How often did (*INDEX CHILD*) eat out at a full service restaurant?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: You can tell me number of times per day, per week, or per month.)

(INTERVIEWER: If answer is "every day" or "7 days a week", probe with "How many times a day?")

- 1 = Gave answer times per day (RANGE 1 - 3)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF E14=1 or 2 or 3, ASK E14a. IF E14=4, ASK E14b. ELSE GO TO E12.)

E14a. How many of these (*insert from E14*) times per (*day/week/month*) did (*INDEX CHILD*) eat healthy choices, such as low-calorie or low-fat items or salads at these places?

(IF RESP SAYS, "A salad comes with the meal," then this counts as a healthy choice.)

- 1 = Gave Response (RANGE=0 to 30) (*can not exceed answer from E14*)
- 2 = (VOL) No such option available
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(NOW GO TO E12.)

E14b. Did (***INDEX CHILD***) eat healthy choices, such as low-calorie or low-fat items or salads at these places?

(IF RESP SAYS, "A salad comes with the meal," then this counts as a healthy choice.)

- 1 = Yes
- 2 = No
- 3 = (VOL) No such option available
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

[ROTATE ORDER OF E12, E15, E16, E17, E19...E10, E11 and E18 WERE MOVED AFTER E19.]

E12. How often did (***INDEX CHILD***) eat fruits and vegetables as a snack at home or at school? You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(INTERVIEWER NOTE: It doesn't matter if it is fruits or vegetables)

(INTERVIEWER: If answer is "every day" or "7 days a week", probe with "How many times a day?")

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E15. How often did (***INDEX CHILD***) drink fruit flavored drinks such as lemonade, Sunny Delight, Kool-aid, Gatorade, or sweet iced teas? Do not include 100% fruit juice.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: You can tell me number of times per day, per week, or per month.)

(INTERVIEWER: If answer is "every day" or "7 days a week", probe with "How many times a day?")

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know

9 = (VOL) Refused

- E16. How often did (**INDEX CHILD**) drink regular carbonated soda or soft drinks that are sweetened such as coke, pepsi, or 7-up? Do not include diet drinks. You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
2 = Gave answer times per week (RANGE 1 - 7)
3 = Gave answer times per month (RANGE 1 - 30)
4 = Less than once a month
5 = Never
8 = (VOL) Don't Know
9 = (VOL) Refused

- E17. How often did (**INDEX CHILD**) eat salty snacks like chips, Doritos, and Nachos?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
2 = Gave answer times per week (RANGE 1 - 7)
3 = Gave answer times per month (RANGE 1 - 30)
4 = Less than once a month
5 = Never
8 = (VOL) Don't Know
9 = (VOL) Refused

- E19. How often did (**INDEX CHILD**) eat sweet items like cookies, cakes, candy, or pies?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
2 = Gave answer times per week (RANGE 1 - 7)
3 = Gave answer times per month (RANGE 1 - 30)
4 = Less than once a month
5 = Never
8 = (VOL) Don't Know

9 = (VOL) Refused

E18. In a usual week in the past month, how many days a week did (*INDEX CHILD*) eat breakfast?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ # DAYS

E10. How often did (*INDEX CHILD*) eat at least two different kinds of fruits IN A DAY, including 100% fruit juice? DO NOT include fruit flavored drinks like lemonade, Hi-C, or fruit punch.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: For example, a banana at lunch and an apple for a snack.)

[IF NEEDED, SAY: You can tell me number of days per week or per month.]

- 1 = Gave answer times per week (RANGE 1 - 7)
- 2 = Gave answer times per month (RANGE 1 - 30)
- 3 = Less than once a month
- 4 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E11. How often did (*INDEX CHILD*) eat at least two different kinds of vegetables IN A DAY, including 100% vegetable juice?. DO NOT include fried potatoes.

(IF NEEDED: This is IN THE PAST MONTH.)

[IF NEEDED, SAY: You can tell me number of days per week or per month.]

- 1 = Gave answer times per week (RANGE 1 - 7)
- 2 = Gave answer times per month (RANGE 1 - 30)
- 3 = Less than once a month
- 4 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

PHYSICAL ACTIVITY

E20. Now think of all (*INDEX CHILD*)'s physical activity in the past 7 days. Adding up all the time (*he/she*) spent in any kind of physical activity that increased (*his/her*) heart rate and made (*him/her*) breathe hard, on how many days was (*he/she*) physically active for a total of AT LEAST 30 MINUTES

PER
DAY?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ # DAYS

(IF E20=0, SKIP TO INSTRUCTS BEFORE E22. ELSE ASK E21.)

E21. **(IF E20=1, read:** Was **(INDEX CHILD)** physically active for a total of AT LEAST 60 MINUTES on that day? (If “Yes,” enter “1.” If “No,” enter “0.”)

(IF E20>1, read: On how many of these (# from E20) days was **(INDEX CHILD)** physically active for a total of AT LEAST 60 MINUTES PER DAY?

(READ ONLY IF NEEDED: Add up all the time **(INDEX CHILD)** spent in any kind of physical activity that increases heart rate and makes (him/her) breathe hard some of the time.)

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ # DAYS **(Answer to E21 can NOT exceed answer from E20.)**

(IF E1= 16 or 17, GO TO E24. ELSE ASK E22.)

E22. Now thinking about the school year, on how many days during a typical week does **(INDEX CHILD)**

walk, bicycle, or skateboard to or from school? (Do not include motor scooters)

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ # DAYS

E23. During the school year, how often does **(INDEX CHILD)** get any type of physical activity or exercise at school (for example, PE class, recess)? You can tell me number of days per week or per month.

- 1 = Gave answer times per week (RANGE 1 - 5)
- 2 = Gave answer times per month (RANGE 1 – 20; 20=20 OR MORE)
- 3 = Less than once a month
- 4 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E24. **(IF E1 <> 16 or 17, READ:)** During the school year, on an average school day, how many hours does **(INDEX CHILD)** watch TV, play video games, or use a computer outside of school? This does not include using the computer for school work.

(IF E1=16 or 17, READ:) On an average weekday, how many hours does **(INDEX CHILD)** watch TV, play video games, or use a computer

- 1 = Gave answer in minutes (RANGE 1-59)
- 2 = Gave answer in hours (RANGE 1-10)
- 3 = (VOL) Does not watch TV/Use computer/Play video games
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

E25. **(IF E1 < 16 or 17, READ:)** During the school year, on a typical weekend DAY, how many hours does **(INDEX CHILD)** watch TV, play video games, or use a computer? This does not include using the computer for school work.

(IF E1=16 or 17,, READ:) On a typical weekend DAY, how many hours does **(INDEX CHILD)** watch TV, play video games, or use a computer?

day out (INTERVIEWER: ALWAYS PROBE WITH: "Is that for the whole weekend, or just 1 of the weekend?" If resp says "whole weekend", re-ask about hours for just ONE DAY)

- 1 = Gave answer in minutes (RANGE 1-59)
- 2 = Gave answer in hours (RANGE 1-10)
- 3 = (VOL) Does not watch TV/Use computer/Play video games
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION F: BEHAVIOR - ADULT

(QUESTIONS FOR RESPONDENT ONLY)

F1. How many days a week do you usually sit down with your whole family for the dinner meal?

(RANGE 0-7, LESS THAN ONCE/WEEK = 8; DK=9, REF=10)

____ Record #

The next few questions are about different kinds of foods you ate or drank during the past month. Your best guess is fine. You can tell me number of times per day, per week, or per month.

F2. How often did you drink 100% PURE fruit juices such as orange, apple, or grape juice? Do NOT include fruit-flavored drinks with added sugar like Hi-C, Gatorade, or fruit punch. You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(INTERVIEWER: If answer is "every day" or "7 days a week", probe with "How many times a day?")

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F3. Not counting juice, how often did you eat fruit? Count fresh, frozen, or canned fruit.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: Your best guess is fine. Include apples, bananas, applesauce, oranges, fruit salad, watermelon, cantaloupe or musk melon, papaya, mangos, grapes, and berries such as blueberries and strawberries.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F4. How often did you eat a green leafy or lettuce SALAD, with or without other vegetables

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: Such as American or Western-type RAW salads with leaf lettuce, romaine, mixed-greens, and spinach.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F5. NOT INCLUDING FRENCH FRIES OR OTHER FRIED POTATOES, how often did you eat any

other kind of POTATOES such as baked, boiled, mashed potatoes, or potato salad? You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: Fried potatoes include French fries, potato chips, tater tots, home fries, and hash brown potatoes. This includes potatoes prepared in any fashion such as baked, boiled, mashed, au-gratin, or scalloped. It includes potatoes prepared in other dishes such as potato salad. Include white, yellow, red-skinned, yams, and sweet potatoes.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)

- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F6. How often did you eat cooked or canned DRIED beans, such as refried beans, baked beans, bean soup, tofu, or lentils?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: Include round or oval beans such as navy, Northern, kidney, black, pinto, soy beans, split peas, cow peas, garbanzo beans, or lentils cooked this way. Do NOT include long green beans such as string beans or pole beans.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is "every day" or "7 days a week", probe with "How many times a day?")

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F7. Not including what you just told me about, how often did you eat OTHER vegetables such as tomatoes, green beans, carrots, corn, cooked greens, sweet potatoes, broccoli, or any other kinds of vegetables?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF ASKED: Do not count any of the following as vegetables: lettuce salads, potatoes, beans, or anything you have already counted.)

(IF NEEDED, SAY: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F11. How often did you eat at a fast food restaurant, deli, pizza, burger, taco or chicken place where you pay before you eat?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: You can tell me number of times per day, per week, or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 - 4)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 – 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF F11=1 or 2 or 3, ASK F11b. IF F11=4, ASK F11c. ELSE GO TO F12.)

F11b. How many of these (*insert from F11*) times per (*day/week/month*) did you eat healthy choices, such as low-calorie or low-fat items or salads at these places?

- 1 = Gave Response (RANGE=0 to 30) (*can not exceed answer from F11*)
- 2 = (VOL) No such option available
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(NOW GO TO F12.)

F11c. Did you eat healthy choices, such as low-calorie or low-fat items or salads at these places?

- 1 = Yes
- 2 = No
- 3 = (VOL) No such option available
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F12. How often did you eat at a full service restaurant?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: You can tell me number of times per day, per week, or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

1 = Gave answer times per day (RANGE 1 - 3)

2 = Gave answer times per week (RANGE 1 - 7)

3 = Gave answer times per month (RANGE 1 - 30)

4 = Less than once a month

5 = Never

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF F12=1 or 2 or 3, ASK F12a. IF F12=4, ASK F12b. ELSE GO TO F10.)

F12a. How many of these (*insert from F12*) times per (*day/week/month*) did you eat healthy choices, such as low-calorie or low-fat items or salads at these places?

(IF RESP SAYS, “A salad comes with my meal,” then this counts as a healthy choice.)

1 = Gave Response (RANGE=0 to 30) (*can not exceed answer from F12*)

2 = (VOL) No such option available

8 = (VOL) Don't Know

9 = (VOL) Refused

(NOW GO TO F10.)

F12b. Did you eat healthy choices, such as low-calorie or low-fat items or salads at these places?

(IF RESP SAYS, “A salad comes with my meal,” then this counts as a healthy choice.)

1 = Yes

2 = No

3 = (VOL) No such option available

8 = (VOL) Don't Know

9 = (VOL) Refused

[ROTATE ORDER OF F10, F13, F14, F15, F17...F8, F9 and F16 WERE MOVED AFTER F17.]

F10. How often did you eat fruits and vegetables as a snack? You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(INTERVIEWER NOTE: It doesn't matter if it is fruits or vegetables)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F13. How often did you drink fruit flavored drinks such as lemonade, Sunny Delight, Kool-aid, Gatorade, or sweet iced teas? Do not include 100% fruit juice.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: You can tell me number of times per day, per week, or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F14. How often did you drink regular carbonated soda or soft drinks such as coke, pepsi, or 7-up? Do not include diet drinks. You can tell me number of times per day, per week or per month.

(IF NEEDED: This is IN THE PAST MONTH.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a

day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F15. How often did you eat salty snacks like chips, Doritos, and Nachos?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is “every day” or “7 days a week”, probe with “How many times a day?”)

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)

- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F17. How often did you eat sweet items like cookies, cakes, candy, or pies?

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: You can tell me number of times per day, per week or per month.)

(INTERVIEWER: If answer is "every day" or "7 days a week", probe with "How many times a day?")

- 1 = Gave answer times per day (RANGE 1 – 10: 10=10 OR MORE)
- 2 = Gave answer times per week (RANGE 1 - 7)
- 3 = Gave answer times per month (RANGE 1 - 30)
- 4 = Less than once a month
- 5 = Never
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

F16. In a usual week in the past month, how many days a week did you eat breakfast?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ # DAYS

F8. How often do you eat at least two different kinds of fruits IN A DAY, including 100% fruit juice NOT include fruit flavored drinks like lemonade, Hi-C, or fruit punch.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED: For example, a banana at lunch and an apple for a snack.)

(IF NEEDED, SAY: You can tell me number of days per week or per month.)

- 1 = Gave answer times per week (RANGE 1 - 7)
- 2 = Gave answer times per month (RANGE 1 - 30)
- 3 = Less than once a month
- 4 = Never

8 = (VOL) Don't Know

9 = (VOL) Refused

F9. How often did you eat at least two different kinds of vegetables IN A DAY, including 100% vegetable juice? DO NOT include fried potatoes.

(IF NEEDED: This is IN THE PAST MONTH.)

(IF NEEDED, SAY: You can tell me number of days per week or per month.)

1 = Gave answer times per week (RANGE 1 - 7)

2 = Gave answer times per month (RANGE 1 - 30)

3 = Less than once a month

4 = Never

8 = (VOL) Don't Know

9 = (VOL) Refused

F19a. Now think about your physical activity both at work and at home in the past 7 days. Adding up all the time you spent in any kind of physical activity that increased your heart rate and made you breath hard, on how many days were you physically active for a total of AT LEAST 15 MINUTES PER DAY?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ DAYS

(IF F19a>0, ASK F19. ELSE GO TO F20.)

F19. **(IF F19a=1, read:** Were you physically active for a total of AT LEAST 30 MINUTES PER DAY on _____ that day? (If "Yes," enter "1." If "No," enter "0.")

(IF F19a>1, read: On how many of these (# from F19a) days were you physically active for a total of AT LEAST 30 MINUTES PER DAY?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ DAYS

(Answer to F19 can NOT exceed answer from F19a.)

F20. Now think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any walking that you might do for exercise, or leisure.

During the last 7 days, on how many days did you walk for at least 10 minutes at a time?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ DAYS

(IF F20=0, SKIP TO F22a; ELSE ASK F21)

F21. **(IF F20=2 through 7, read:)** “On average, how much time did you usually spend walking on one of those **(insert from F20)** days?”

(IF F20=1, read:) “How much time did you spend walking on that day?”

(IF F20=8 or 9, read:) “On average, how much time did you usually spend walking on a typical day?”

- 1 = Gave hours per day
- 2 = Gave minutes per day
- 3 = Time Varies Widely
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF F21=1 or 2, GO TO F22a. ELSE ASK F21a.)

F21a. What is the total amount of time you spent walking over THE LAST 7 DAYS?

- 1 = Gave hours per week [Range = 0 - 112]
- 2 = Gave minutes per week [Range = 0 - 6720]
- 8 = (VOL) Don't Know/Not Sure
- 9 = (VOL) Refused

F22a. Have you ridden a bicycle in the past week?

(INTERVIEWER: Does NOT include using a stationary bike.)

- 1 = Yes
- 2 = No
- 3 = (VOL) Don't Know
- 4 = (VOL) Refused

(IF F22a=2, SKIP TO G1. ELSE CONTINUE.)

F22. Now think only about the BICYCLING you did to travel to and from work, to go from place to place, or solely for exercise, or leisure. Do NOT include time spent on a stationary bike.

During the last 7 days, on how many days did you bicycle for at least 10 minutes at a time?

(RANGE 0-7; 8=(VOL) DON'T KNOW; 9=(VOL) REFUSED)

_____ DAYS

(IF F22=9, GO TO SECTION G. ELSE ASK F23.)

F23. How much time did you usually spend bicycling on a typical day?

(INTERVIEWER: An average time for one of the days on which you bicycle is being sought)

- 1 = Gave hours per day
- 2 = Gave minutes per day
- 3 = Time Varies Widely
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF F23=1 or 2, GO TO SECTION G. ELSE ASK F23a.)

F23a. What is the total amount of time you spent bicycling over the last 7 days?

- 1 = Gave hours per week [Range = 0 - 112]
- 2 = Gave minutes per week [Range = 0 - 6720]
- 8 = (VOL) Don't Know/Not Sure
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION G – HEALTH CARE COVERAGE

Display: Now, we're going to talk about health insurance.

G1. Do you have some form of health insurance or health care coverage, or not? (ABC, #7)

- 1 = Yes, have insurance
- 2 = No insurance
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(If G1=1, ask G2. Else go to G4.)

G2. Are you mainly covered by Medicare, Medicaid, NJ FamilyCare, insurance through a current or former job or other private insurance, or do you have coverage from some other source? (ABC, #8)

(IF NEEDED: Medicare is the government health insurance program for people 65 and over and some younger people with disabilities. Medicaid and NJ FamilyCare are government health

insurance programs for low-income families.)

- 1 = Medicare
- 2 = Medicaid
- 3 = NJ Family Care
- 4 = Insurance through a current or former job
- 5 = Other private insurance
- 6 = Coverage from some other source
- 8 = (VOL) Don't Know

9 = (VOL) Refused

(IF G2=2 through 6, ASK G2a. ELSE GO TO INSTRUCTS BEFORE G4.)

G2a. Is **(INDEX CHILD)** covered by your health insurance?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(If G2=5 or 6, ask G3. Else go to G4.)

G3. Is that coverage part of a program such as NJ FamilyCare or Medicaid?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF G2a=1, SKIP TO SECTION H. ELSE ASK G4.)

G4. Does **(INDEX CHILD)** currently have some form of health insurance or health care coverage?

1 = Yes

2 = No

8 = (VOL) Don't Know

9 = (VOL) Refused

(IF G4=1, ASK G5. ELSE GO TO SECTION H.)

G5. Is **(INDEX CHILD)** covered by health insurance through the current or former employer of a parent

or guardian or some other private insurance, is **(he/she)** covered by a program such as Medicare, Medicaid, or NJ FamilyCare, or does **(he/she)** have some other kind of health insurance?

(IF NEEDED: Medicare sometimes covers younger people who have certain disabilities).

(IF NEEDED: Medicaid and NJ FamilyCare are government health insurance programs for low-income families)

- 1 = insurance through current or former employer of parent/guardian
- 2 = Other private insurance
- 3 = Medicare
- 4 = Medicaid
- 5 = NJ FamilyCare
- 6 = other coverage
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(If G5= 2 or 6, ask G6. Else go to SECTION H.)

G6. Is that coverage part of a program such as NJ FamilyCare or Medicaid?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION H - EMPLOYMENT AND EARNINGS

The next section is about employment.

(IF (((SC5b=18 or SC5b1=5) and (SC2cc=0)) or ((SC5b>18 or SC5b1>5) and (SC2cc=1))) and ((SC7a_2 through SC7a_14 are ALL NOT 18) and (SC7a1_2 through SC7a1_14 are ALL NOT punch 5)), ASK H1. ELSE GO TO INSTRUCTS BEFORE H2.)

H1. Are you working for pay?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF (((SC5b=18 or SC5b1=5) and (SC2cc>0)) or ((SC5b>18 or SC5b1>5) and (SC2cc>1))) or ((SC7a_2 through SC7a_14 are ALL > 17) or (SC7a1_2 through SC7a1_14 are ALL > punch 4)), ASK H2. ELSE GO TO H3.)

H2. How many people in your household age 18 and over are working for pay? Please be sure to include yourself, if applicable.

(RANGE: 0 to 16; 15=DK; 16=REF)

_____ Record #

H3. The next questions are about income that your family received during 2008. Again, by family, include all family members living there related by blood, marriage, living as married, and any children of those people.

During 2008, what was your family's total income from all sources, before taxes and other deductions? Include job wages, public assistance, social security, child support, and any other sources of income. (FHIS 7.1)

- 1 = Gave Annual Salary
- 2 = Gave Weekly Salary
- 3 = Gave Bi-Weekly Salary
- 4 = Gave Monthly Salary
- 5 = Gave Bi-Monthly Salary
- 6 = (VOL) No income whatsoever in 2008 **(GO TO H9)**
- 8 = (VOL) Don't Know **(GO TO H5)**
- 9 = (VOL) Refused **(GO TO H5)**

(IF H3=8 or 9, GO TO H5. IF H3=6, GO TO H9. ELSE ASK H4.)

H4. ENTER INCOME: (DO NOT READ:)

(RANGE = 0-999999; 999999 = 999,999 OR MORE)

_____ Record #

(ALL ASKED H4 GO TO H9)

H5. Was your family's 2008 total income from all sources, before taxes: (READ LIST)

(READ PROBES ONLY IF RESPONDENT REFUSES TO ANSWER)

(a) Answers to questions on earnings are important to our survey because they help explain whether people can afford the health care they need. Also, the information you provide will be kept confidential and will only be used in statistical summaries).

(b) Total income includes wages and salaries from jobs, net income from farms or businesses, interest or dividends, pensions or social security, income from rental property, estates or trusts, public assistance or welfare, social security, child support, other sources.

(c) Your best estimate would be fine.

- 1 = Under \$20,000,
- 2 = \$20,000 to \$49,999, or
- 3 = \$50,000 or greater?
- 8 = (VOL) Don't know
- 9 = (VOL) Refused

(IF H5=1, ASK H6. IF H5=8 or 9, GO TO H9. ELSE GO TO INSTRUCTS BEFORE H7.)

H6. Is it...(READ LIST)?

- 1 = Under \$10,000, or
- 2 = \$10,000 - \$19,999?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(ALL ASKED H6, GO TO H9)

(IF H5=2, ASK H7. ELSE GO TO INSTRUCTS BEFORE H8.)

H7. Is it...(READ LIST)?

- 1 = Between \$20,000 and \$29,999,
- 2 = Between \$30,000 and \$39,999 or
- 3 = Between \$40,000 and \$49,999?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(ALL ASKED H7, GO TO H9)

(IF H5=3, ASK H8. ELSE GO TO H9.)

H8. Is it...(READ LIST)?

- 1 = Between \$50,000 and \$74,999,
- 2 = Between \$75,000 and \$99,999,
- 3 = Between \$100,000 and 149,999, or
- 4 = \$150,000 or more?
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

H9. During the year 2008, did anyone in your family living there receive government assistance such as SSI, SSDI, or TANF (TANIF)?

(IF NEEDED: "SSI=Supplemental Security Income"
"SSDI=Social Security Disability Insurance"
"TANF=Temporary Assistance for Needy Families")

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

H10. Did anyone in your family living there receive food stamps in 2008? (FHS 7.13)

(IF NEEDED: "Food Stamps" are also referred to as SNAP (Supplemental Nutrition Assistance Program) or as having an EBT card (Electronic Benefits Transfer.)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

H11. Did anyone in your family living there receive WIC in 2008?

and (IF NEEDED: "WIC=Special Supplemental Nutrition Program for Woman, Infants
Children.)

- 1 = Yes
- 2 = No

8 = (VOL) Don't Know
9 = (VOL) Refused

H12. Does (*INDEX CHILD*) receive free or reduced-cost breakfast or lunch at school/daycare?

1 = Yes
2 = No
3 = (VOL) Not in school/daycare
8 = (VOL) Don't know
9 = (VOL) Refused

H14. Do you own or rent your home? (DO NOT READ UNLESS NECESSARY) (NSAF M-1)

1 = Owned or being bought by you/someone in your household
2 = Rented for cash, or
3 = Occupied without payment of cash rent?
8 = (VOL) Don't know
9 = (VOL) Refused

(INSERT TIME STAMP)

SECTION I - DEMOGRAPHICS

i1. Are you of Spanish, Hispanic, or Latino origin or descent?

[PROBE FOR REFUSALS: "I understand that these questions may be sensitive. We are asking these questions to help understand different health care problems and needs people have."]
(Probe used in CTS, not NASF) (NASF O1, CTS p106)

1 = Yes
2 = No
8 = (VOL) Don't Know
9 = (VOL) Refused

i2. Is (*INDEX CHILD*) of Spanish, Hispanic or Latino origin or descent?

1 = Yes
2 = No
8 = (VOL) Don't Know
9 = (VOL) Refused

(ASK i3 IF i1=1. ELSE GO TO INSTRUCTS BEFORE i4.)

i3. What group are you? Would you say you are Mexican, Mexican-American, Puerto Rican, Central or South American, Cuban or some other group?

1 = Mexican/ Mexican-American
2 = Puerto Rican
3 = Cuban

- 4 = Central or South American
- 5 = Dominican
- 6 = Haitian
- 10 = Other (SPECIFY)
- 11 = (VOL) Don't Know
- 12 = (VOL) Refused

(IF (i3=1 through 10) and (i2<>2), ask i4. ELSE GO TO INSTRUCTS BEFORE i5.)

i4. Is (**INDEX CHILD**) also (*insert response to i3*)?

- 1 = Yes, we are the same
- 2 = No, we are not the same
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF (i4=2) or (i1<>1 and i2<>2) or ((i3=11 or 12) and (i2<>2)), ASK i5. ELSE GO TO i6.)

i5. What group is (**INDEX CHILD**)? Would you say (**INDEX CHILD**) is Mexican, Mexican-American, Puerto Rican, Central or South American, Cuban or some other group?

[NOTE: If anyone is a combination put the answer as "other" and list the combination – i.e., Mexican and South American]

- 1 = Mexican/ Mexican-American
- 2 = Puerto Rican
- 3 = Cuban
- 4 = Central or South American
- 5 = Dominican
- 6 = Haitian
- 10 = Other (SPECIFY)
- 11 = (VOL) Don't know
- 12 = (VOL) Refused

i6. What is your race? (DO NOT READ LIST)

(IF "HISPANIC", PROBE: Are you Hispanic and black, or Hispanic and white?) (NASF, O3)

- 1 = Black/African American
- 2 = White
- 3 = American Indian/Native American/Aleutian or Eskimo
- 4 = Asian/Pacific Islander
- 5 = (VOL) Hispanic (ACCEPT ONLY AFTER PROBE)
- 9 = Other (SPECIFY)
- 10 = (VOL) Don't Know
- 11 = (VOL) Refused

i7. What is (**INDEX CHILD**)'s race?

- 1 = Black/African American

- 2 = White
- 3 = American Indian/Native American/Aleutian or Eskimo
- 4 = Asian/Pacific Islander
- 5 = (VOL) Hispanic (ACCEPT ONLY AFTER PROBE)
- 9 = Other (SPECIFY)
- 10 = (VOL) Don't Know
- 11 = (VOL) Refused

i8. Were you or (**INDEX CHILD**) born outside of the United States, Puerto Rico, or other U.S. territories?

[IF NECESSARY: Puerto Rico and other U.S. territories (Guam, U.S. Virgin Islands, American Samoa, Northern Marianas Islands, or Marshall Islands) are considered inside the United States. If born in a U.S. military family, that is considered born in the U.S. regardless of

the

country.] (NASF O4)

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF i8=1, GO TO i9. ELSE GO TO i12.)

i9. Who was born outside of the United States? (MULTIPLE RECORD) (PROBE: Anyone else?) (NASF, O5)

- 1 = respondent (*read-in Resp name/initials*)
- 2 = index child (*read-in Index Child name/initials*)
- 3 = Other HH member(s)
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF i9=1 and/or 2, ASK i10 THROUGH i11NYR CONSECUTIVELY FOR EACH. DO NOT ASK FOR CODE 3 FROM i9. IF i9= 4 or 5, GO to i12.)

i10. (*Are you / Is INDEX CHILD*) a citizen of the United States? (NASF, O7)

- 1 =Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

i11. When did (*you/INDEX CHILD*) come to live in the United States? (NASF, O9)

- 1 = Gave SPECIFIC Year
- 2 = Gave Number of Years
- 8 = (VOL) DON'T KNOW
- 9 = (VOL) REFUSED

(IF i11=1, ASK i11syr. ELSE GO TO INSTRUCTS BEFORE i11nyr.)

i11syr. [INTERVIEWER: ENTER SPECIFIC YEAR; ENTER AS 4 DIGITS, EX: 1970]

“When did (*he/she*) come to live in the United States?”

(RANGE = 1900 – 2009)

(NOW GO BACK TO i10 FOR THE NEXT PERSON. IF NO ONE ELSE, GO TO i12.)
(IF i11=2, ASK i11nyr. ELSE GO BACK TO i10 FOR THE NEXT PERSON. IF NO ONE ELSE, GO TO i12.)

i11nyr. [INTERVIEWER: ENTER NUMBER OF YEARS]

“When did *(he/she)* come to live in the United States?”

(RANGE = 1 TO 100)

(NOW GO BACK TO i10 FOR THE NEXT PERSON. IF NO ONE ELSE, GO TO i12.)

i12. What is the primary language spoken in your home?

- 1 = English
- 2 = Spanish
- 11 = Other (Specify)
- 12 = (VOL) Don't Know
- 13 = (VOL) Refused

i13. What is the highest grade or level of school that you have completed?

- 1 = 8th GRADE OR LESS
- 2 = 9th TO 11TH
- 3 = 12TH GRADE, GED OR HIGH SCHOOL DIPLOMA
- 4 = Some voc//tech/business/trade school
- 5 = Some voc.tech/business/trade school certificate or diploma
- 6 = Some college/no degree
- 7 = Associate's degree
- 8 = Bachelor's degree
- 9 = Some graduate/professional school/no degree
- 10 = Graduate/professional degree (MA;MS;PHD;EDD;MD;DDS;JJ/LLB, ETC)
- 16 = (VOL) Don't Know
- 17 = (VOL) Refused

(If i13=4 OR 5, ASK i14. ELSE GO TO INSTRUCTS BEFORE i13a.)

i14. Do you have a high school diploma or GED?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(If Resp is the Mother of the Index Child (i.e. – (SC7=2 for Resp) AND (FR1a=3 or 4 or 5 or 7 or 8 or 9 or 10 or 12 for Index Child), then go to i15. Else ask i13a.)

i13a. What is the highest grade or level of school that (*INDEX CHILD*)'s mother has completed?

- 1 = 8th GRADE OR LESS
- 2 = 9th TO 11TH
- 3 = 12TH GRADE, GED OR HIGH SCHOOL DIPLOMA
- 4 = Some voc//tech/business/trade school
- 5 = Some voc.tech/business/trade school certificate or diploma
- 6 = Some college/no degree
- 7 = Associate's degree
- 8 =Bachelor's degree
- 9 = Some graduate/professional school/no degree
- 10 = Graduate/professional degree (MA;MS;PHD;EDD;MD;DDS;JJ/LLB, ETC)
- 16 = (VOL) Don't Know
- 17 = (VOL) Refused

(If i13a=4 OR 5, ASK i14a. ELSE GO TO i15.)

i14a. Does (*INDEX CHILD*)'s mother have a high school diploma or GED?

- 1 = Yes
- 2 = No
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF (Sc2cc=1), GO TO CLOSING. ELSE ASK i15.)

i15. Are you the Head of the Household?

(IF NEEDED: This would be the person in your household who provides 50% or more of the financial support and maintenance to 1 or more other people in that household who are closely related to him/her by blood, marriage or adoption.)

(INTERVIEWER: THIS INCLUDES SINGLE PERSON HHs.)

- 1 = Yes
- 2 = No
- 3 = (VOL) Respondent shares joint head of household
- 8 = (VOL) Don't Know
- 9 = (VOL) Refused

(IF i15=1 or 3, GO TO CLOSING. ELSE ASK i16.)

i16. How is the head of the household related to (*INDEX CHILD*)?

- 1 = his/her father
- 2 = his/her mother
- 3 = his/her step-father
- 4 = his/her step-mother

- 5 = his/her foster father
- 6 = his/her foster mother
- 7 = his/her grandfather
- 8 = his/her grandmother
- 9 = his/her legal guardian (male)
- 10 = his/her legal guardian (female)
- 11 = his/her legally adopted father
- 12 = his/her legally adopted mother
- 13 = partner of respondent
- 14 = partner of other household member
- 15 = his/her uncle
- 16 = his/her aunt
- 17 = his/her brother
- 18 = his/her sister
- 19 = his/her cousin
- 20 = his/her father-in-law
- 21 = his/her mother-in-law
- 22 = his/her great grandfather
- 23 = his/her great grandmother
- 24 = his/her other relative, specify: _____
- 25 = other, specify: _____
- 26 = Don't Know
- 27 = Refused

(INSERT TIME STAMP)

CLOSING. Thank you very much for your time. I want to get your name and your mailing address so I can send you the check as a token of our appreciation.

(INTERVIEWER: IF RESP. REFUSES, FIRST PROBE WITH... "Please know that this information will be held in strictest confidence and will NOT be shared beyond the research team.")

- 1 = Gave Response
- 9 = (VOL) Refused

(IF CLOSING=1, GO TO MYGETA. IF CLOSING=2, GO TO CS1.)

(PROGRAMMER: SHOW CONTACT INFO AS A GRID ON 1 SCREEN. UPDATE GRID AS INFORMATION IS BEING ENTERED FROM "MYGETA.")

RESPONDENT NAME -:
 STREET -:
 APT NUMBER -:
 CITY *:
 STATE -:
 ZIPCODE -:

MYGETA. INTERVIEWER: RECORD RESPONDENT NAME

- 1 = Gave RESPONDENT NAME
- 3 = (VOL) DON'T KNOW
- 4 = (VOL) REFUSED

MYGETA. INTERVIEWER: RECORD STREET

- 1 = Gave STREET
- 3 = (VOL) DON'T KNOW
- 4 = (VOL) REFUSED

MYGETA. INTERVIEWER: RECORD APT NUMBER

- 1 = Gave APT NUMBER
- 2 = No Apartment Number
- 3 = (VOL) DON'T KNOW
- 4 = (VOL) REFUSED

MYGETA. INTERVIEWER: RECORD CITY

- 1 = Gave CITY
- 3 = (VOL) DON'T KNOW
- 4 = (VOL) REFUSED

MYGETA. INTERVIEWER: RECORD STATE

- 1 = Gave STATE
- 3 = (VOL) DON'T KNOW
- 4 = (VOL) REFUSED

MYGETA. INTERVIEWER: RECORD ZIPCODE

- 1 = Gave ZIPCODE
- 3 = (VOL) DON'T KNOW
- 4 = (VOL) REFUSED

(NOW GO TO W1.)

(IF CLOSING=9, ASK CS1. ELSE GO TO INSTRUCTS BEFORE W1.)

CS1. Would you at least be able to provide us with the cross streets that are nearest to your home?

- 1 = Yes / Gave Response (Record Verbatim): _____
- 2 = No / Refused

WORKSHEET INSTRUCTIONS

(IF CLOSING=1, ASK W1. ELSE GO TO R2.)

W1. In addition to the \$10 we will be sending you, we will also be sending you a tape measure and worksheet to record you and your children's height and weight. If you complete and send back the worksheet, we will send you an additional \$10 as a token of our appreciation.

- 1 = CONTINUE

RE-CONTACT INFO

R2. Thank you for your cooperation and for taking the time to participate in this important study. In the future, we may be contacting you again to collect some follow-up information on health care issues and concerns. Like the interview today, your participation to a follow-up interview will be voluntary and your responses will remain confidential.

Would you be willing to provide us with the name or initials and phone number of 2 friends or family members who would know how to contact you in the event that we would be unable to reach you at this phone number?

- 1 = Yes, willing to provide names/numbers
- 2 = No, refuses to provide names/numbers

(IF R2=1, GO TO R2a. ELSE GO TO W2.)

R2a. What is the name or initials of the 1st family member or friend?

- 1 = Gave Response
- 9 = (VOL) Refused

(IF R2a=9, GO TO W2. ELSE GO TO R2b.)

R2b. And what is the phone number for the 1st family member or friend?

- 1 = Gave Response
- 9 = (VOL) Refused

(IF R2b=9, GO TO W2. ELSE GO TO R3a.)

R3a. What is the name or initials of the 2nd family member or friend?

- 1 = Gave Response
- 9 = (VOL) Refused

(IF R3a=9, GO TO W2. ELSE GO TO R3b.)

R3b. And what is the phone number for the 2nd family member or friend?

- 1 = Gave Response
- 9 = (VOL) Refused

W2. Finally, before we say good-bye if you would like to have more information about Medicaid, NJ Family Care or NJ Ease I can give you the phone numbers.

(PROVIDE NUMBERS REQUESTED: Medicaid: 1-800-356-1561; NJ Ease: 1-877-222-3737; NJ FamilyCare: 1-800-701-0710) (MULTIPLE RECORD)

- 1 = Didn't want numbers
- 2 = Gave Medicaid
- 3 = Gave KidCare/FamilyCare
- 4 = Gave NJ Ease

CLOSING 2 Thank you for your cooperation and for taking the time to participate in this important study.

LANG. INTERVIEWER PLEASE ENTER THE LANGUAGE OF INTERVIEW

- 1 = ENGLISH
- 2 = SPANISH

(INSERT TIME STAMP)