

Exploring the Weight Loss Strategies Adopted by Overweight and Obese Parent and
Child Dyads

by

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ABSTRACT

Objectives: This study examines weight loss strategies (eating, physical activity (PA), or both) adopted by overweight or obese (OWOB) parents and children in relation to age, income, gender, education, and race/ethnicity in a predominantly low-income and high minority sample. We also examine if OWOB parent-child dyads employed the same strategies to lose weight, and how these strategies vary by demographic variables.

Methods: Data was compiled from the New Jersey Childhood Obesity Study (NJCOB). A random digit dial household phone survey was used to select 1,708 households with at least one child aged 3-18 years from five cities in New Jersey. There were 231 OWOB parent-child dyads in this sample. Bivariate and multivariate analyses were performed to determine the demographic variables significantly associated with the type of weight loss strategy chosen.

Results: Males had higher odds of using PA and both eating and PA when compared to females. Higher income adults had higher odds of using all types of weight loss strategies compared to lower income adults. Adults with college education had higher odds of using eating and both eating and PA when compared to those with high school education. Older children (6-11 and 12-19 years) had higher odds of using PA when compared to younger children (2-5 years). Children of foreign-born parents (> 10 years in the US) had higher odds of using eating to lose weight compared to the children of US born parents. Children overall had higher odds of adopting a weight loss strategy if it was also adopted by the parent. In subgroup analysis, parent-child dyads had higher

odds of adopting similar strategies among older children (12-19) and among girls, but this association did not hold true for younger children (2-11 years) and among boys for PA.

Conclusion: Older OWOB children (12-19) and female children had higher odds of adopting their parents' weight loss strategies. Younger children did not follow the same pattern as their parents and among boys concordance was observed only for eating strategies. Results from the study may inform future family-based weight management interventions.

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GLOSSARY

Term	Definition
Overweight and obese (OWOB)	Overweight and obesity status was determined using BMI. OWOB is classified differently in adults and children.
Body Mass Index (BMI)	BMI is an indirect measure of body fat in humans based on height in meters and weight in kilograms. Its formula is $\text{weight}/\text{height}^2$. For example, an adult who is 1.77 meters tall and weighs 70 kilograms will have a BMI of 22.3.
BMI for Adults	A BMI in the 18.5-24.9 range is normal weight. A BMI in the 25-29.9 range is overweight, while any BMI above that is obese. Obesity is separated into three different categories. Class I obesity has a BMI ranging from 30.0-34.9, Class II obesity ranges from 35-39.9, and Class III obesity is all BMIs greater than or equal to 40 (Centers for Disease Control and Prevention, 2012).
BMI for Children	BMI charts for children also take age and gender into consideration. A child is normal weight if his or her BMI lies between the 5th and below the 85th percentile on the CDC BMI-for-age percentile growth chart (Centers for Disease Control and Prevention, 2015). An overweight child will lie between the 85th to less than 95th percentiles, and an obese child will fall at or above the 95th percentile.
Physical activity (PA)	PA will be a consistent acronym for physical activity in this paper
Socioeconomic status (SES)	Those who were fall below 200% of the Federal Poverty Level were considered low-income.

INTRODUCTION

Overview

Recent studies had revealed that amongst children and adolescents aged 2 to 19 years old in the United States, over 17% were obese in 2014. Almost 38% of adults aged 20 and above were obese in 2014 (Ogden et al., 2015). Obesity has in fact tripled between 1980--2002 in children and adolescents aged 6-17 years old, and while there has not been a significant increase in obesity rates since then, the numbers of overweight and obese children in the US remains staggering (Ogden et al., 2002). Further, obesity has affected all segments of the population in the US: males and females, high and low socio-economic status (SES), and all races/ethnicities albeit to different degrees (Caprio, et al., 2008).

The health risks associated with increased Body Mass Index (BMI) in adults include cancer, type II diabetes, hypertension, coronary artery disease, osteoarthritis, liver diseases, and reproductive diseases (Bhaskaran, et al., 2014; Rexrode, et al., 1998; Kopelman, 2007; Biro & Wien, 2010; National Institutes of Health, 2013). Compared to their normal weight peers, obese children have a higher risk of developing type II diabetes, impaired glucose tolerance, insulin resistance, and liver disease (Whitlock et al., 2005). They may also suffer from joint problems and heartburns (Han, Lawlor, & Kimm, 2010). Cardiovascular disease (CVD) has several risk factors including hypertension, high cholesterol, and diabetes; 70% of children who were obese had at least one of the listed CVD risk factors and 39% of obese children were shown to have 2 or more CVD risk factors (Freedman et al., 2005).

Previous studies had revealed that individuals from certain demographic groups were more susceptible to obesity than others. The prevalence of overweight and obesity (OWOB) in children of lower SES families were twice as that of children from high SES families (O'Dea & Caputi, 2001). Adults, particularly women, had higher BMIs with decreasing SES (Monteiro et al., 2004; Ogden et al., 2010). Families that belong to low SES groups primarily include non-Hispanic blacks and Hispanics (KewalRamani et al., 2007). The prevalence of obesity was higher in non-Hispanic blacks and Hispanic youth compared to non-Hispanic whites and non-Hispanic Asian whereas non-Hispanic black adults had the highest prevalence of grade III obesity (Ogden et al., 2014). It is essential to design interventions aimed at populations which were most vulnerable to being OWOB in order to encourage them lead a healthier lifestyle.

Altering eating habits and increasing physical activity (PA) were the two attempted lifestyle changes people looking to lose weight often implement. For adults the most common methods of weight loss were (in order from most prevalent to least prevalent): 1) altering eating habits 2) engaging in PA and, 3) a combination of eating habits and PA. (Serdula, et al., 1999; Kruger et al., 2004; Kruger, Blanck, & Gillespie, 2006; Weiss et al., 2006; Field et al., 2009; Zhao et al., 2009). In all studies, women had been shown to be more likely to attempt to lose weight than men. Compared to men, women were more likely to alter their eating habits (Felts et al., 1996; Serdula, et al., 1999; Bish, et al., 2007; Julia, et al., 2014), and compared to women, men were more likely to engage in PA to lose weight (Weiss et al., 2006; Bish, et al., 2007). While Julia et al found that adult dieters were more likely to be younger in age, Zhao et al. found that prevalence of attempting to lose weight increased from 18-59 years old and then

plummeted, and Weiss et al. showed no strong associations between age and weight loss prevalence in men and women. Non-Hispanic blacks were less likely than non-Hispanic whites to attempt to lose weight (Weisset al., 2006; Zhao et al., 2009) and those with a higher level of education were more likely than those of a lesser education to attempt to lose weight (Kruger et al., 2004; Zhao et al., 2009).

In adolescents, altering eating habits and PA were the most commonly used weight loss strategies. Like in adults, females were more likely than males to attempt to lose weight. (Middleman, Vazquez, & Durant, 1998; Boutelle et al., 2001; Lowry et al., 2005). While females were more likely than males to use eating habits to lose weight (Felts et al., 1996; Boutelle et al., 2001), and females were also more likely to use PA to lose weight, males were more likely to use vigorous PA (Lowry et al., 2005; Boutelle et al., 2001). Combining PA with eating habits to lose weight has become more popular over time (Lowry et al., 2005) and this approach was even the most popular amongst adolescents in the Fields et al. (1996) study. Non-Hispanic black adolescents were less likely to attempt to lose weight compared to non-Hispanic whites (Felts et al., 1996; Lowry et al., 2005; Alm et al., 2009).

Parents are the main source for weight loss encouragement in children. Previous studies had shown that a child was more likely to engage in PA if the parent also exercises (Moore, et al., 1991; Fuemmeler, Anderson, & Mâsse, 2011; Jago, et al., 2011) and that children were very likely to mimic their parents' eating habits (Brown & Ogden, 2003; Oliveria , et al., 1992). Children primarily follow their mother's eating habits and even children as young as 2 years old eat similarly to their mother (Patrick & Nicklas , 2013). Daughters were particularly influenced by their parent's eating habits, and they

were more likely to diet if a parent diets (Cutting et al., 1999). Fathers' and sons' PA were positively and significantly correlated while mothers' and sons' PA were not correlated. There was a strong positive and significant relationship between mothers' and daughters' PA. This relationship was significantly weaker for fathers and daughters. The number of active parents and the PA levels of children were also positively linearly related (Moore, et al., 1991; Fuemmeler, Anderson, & Mâsse, 2011; Jago, et al., 2011). Parental PA appears to be more important for children than adolescents (Vet, Ridder, & Wit, 2010). These relationships had not been examined by demographic characteristics such as race, ethnicity and SES of parents and children.

Purpose

The purpose of this study was to examine the preferred weight loss strategies (eating habits, PA, or both) in relation to age, income, gender, and race/ethnicity in OWOB parents and OWOB children in a predominantly low-income high minority sample. OWOB was defined based on parents' perception of their own and their child's weight status. This study also examines whether the OWOB parent-child dyads will employ the same strategies to lose weight, and how these common strategies vary by age and gender of the child. The results from this study will help design successful family-based weight management interventions in different populations.

Research Questions and Hypothesis

This study aims to examine three research questions along with specific hypotheses under each:

Research Question 1: What proportion of adults who consider themselves to be OWOB try to adopt strategies (eating, PA, or both) to lose weight? How does that differ amongst different demographics?

Hypothesis 1.1: Overall OWOB adults are more likely to adopt eating strategies to lose weight.

Hypothesis 1.2: The choice of weight loss strategies will vary by parent age, gender, income, race/ethnicity, and education level.

Research Question 2: What proportion of children who are OWOB according to their guardian adopt strategies (eating, PA, or both) to lose weight? How does that differ amongst different demographics?

Hypothesis 2.1: Overall OWOB children are more likely to adopt eating strategies to lose weight.

Hypothesis 2.2: The choice of weight loss strategies will vary by child age, gender, and race/ethnicity, and parent's income and education level.

Research Question 3: What proportion of children who are OWOB according to their parent and whose parents' perceive themselves to be OWOB employ strategies similar to their parents for managing weight.

Hypothesis 3.1: Overall, OWOB children are more likely to use weight loss strategies similar to the ones used by their OWOB parents.

Hypothesis 3.2: Younger OWOB children are more likely to adopt strategies that their OWOB parents use than older OWOB children

Hypothesis 3.3: OWOB girls at all ages are more likely to adopt strategies that their OWOB parents use compared to OWOB boys

REVIEW OF LITERATURE

There has not been a single demographic group in the United States that has been untouched by the so-called “obesity epidemic” over time; however, this “epidemic” has affected some groups more significantly than others. When considering the most common methods of weight loss in overweight and obese (OWOB) adults, children, and parent-child dyads, research was needed to understand weight management strategies adopted by different demographic groups and as well as the extent of overlap in strategies adopted by parents and children. It was essential that populations that are most susceptible to obesity be targeted with interventions that might potentially stifle this “obesity epidemic” (Caprio, et al., 2008).

Throughout this document, “adolescents” and “children” will be grouped to one category called “children”; this will always be the case unless stated otherwise.

Prevalence, Definitions, and Health Consequences of Obesity

Adults

According to an article by Ogden et al. (2015), 37.7% of the adult population in the United States was obese. All states have a prevalence of obesity in adults greater than 20%. When considering the geographical construct of the United States, the Midwest had the highest incidence of obesity, followed by the South, the Northeast, and the West (Ogden et al., 2014). Across Medicare, Medicaid, and private payers, obese individuals spend about \$1,429 more than their normal weight counterparts on medical bills. Across

all payers, about \$147 billion were spent on the medical spending of obesity in the United States in 2008 (Finkelstein et al., 2009).

Adults over the age of 18 were classified into different weight categories based on their body mass index (BMI). BMI was calculated by taking weight in kilograms divided by height in meters squared. For example, an adult who was 1.77 meters tall and weighs 70 kilograms will have a BMI of 22.3. Those who fall within the 18.5-24.9 BMI range were considered to be normal weight. A range of 25-29.9 was considered overweight, while any BMI above that was considered obese. Obesity was separated into three different categories. Class I obesity has a BMI ranging from 30.0-34.9, Class II obesity ranges from 35-39.9, and Class III obesity was all BMIs greater than or equal to 40 (Centers for Disease Control and Prevention, 2012).

Adults: Health Consequences

There are a plethora of diseases and symptoms associated with excess body fat (particularly visceral fat) and certain BMIs. A review by Kopelman (2007) details the risks associated with overweight and obesity in adults. According to Kopelman (2007), an obese individual was five times more likely than his normal weight counterpart to have hypertension. About 70% of obese hypertensive women also have left ventricular hypertrophy, which will lead to heart exhaustion. Obese women with a BMI of over 32 were three times more likely to develop gall bladder disease and this risk increases to seven times if the women has a BMI over 45. Obesity also leads to reproductive disorders: it was linked to 6% of primary infertility in women as well as infertility and impotency in men (Kopelman, 2007). A prospective cohort study involving 44,702

women from the Nurses' Health Study found that women with a larger waist circumference have a higher likelihood of developing coronary heart disease (Rexrode, et al., 1998). In a study of 5.24 million adults in the UK, it was found that 17 types of cancer were linked to increased BMI (Bhaskaran, et al., 2014). Kopelman (2007) also stated that 90% of individuals with type II diabetes have a BMI of over 23. With each unit increase in BMI, the risk of developing coronary artery disease increases by 3.6 times. Increased neck thickness due to obesity was associated with obstructive sleep apnea and dyslipidemia also gets progressively worse with increasing BMI (Kopelman, 2007).

Children

According to Ogden et al. (2015), 17.2% of children and adolescents in the United States were obese. The prevalence of obesity in children has remained relatively steady for the past decade (Ogden et al., 2014; Ogden et al., 2015).

It was recommended that children aged 6-18 be screened for obesity (US Preventive Services Task Force, 2010). For children aged 2-18 years old, a different scale of measurement was used to classify obesity. Unlike adults, BMI charts for children also take age and gender into consideration. The calculation for BMI remains the same. A child was normal weight if her/she lies between the 5th and 84th percentile on the CDC BMI-for-age percentile growth chart. An overweight child will lie between the 85th to 95th percentiles while an obese child will fall in the area greater than the 95th percentile. For example, a ten-year-old girl with a height of 140 centimeters and a weight of 33 kilograms will be assigned to the 49th percentile. This means that her weight was greater

than 49% of children of the same gender and age (Centers for Disease Control and Prevention, 2015).

Children: Health Consequences

Obese children are likely to become obese adults (Serdula, et al., 1993). For children, the size of adipose tissue cells increase with increasing age. For children between the ages of 1-6 years, adipose tissue cell size triples. Adipose cell numbers also increase gradually until the age of 10. This is the natural process in the adipose tissue development of children. However, if a child overeats and was sedentary, then he/she will have an unhealthy increase in fat cell size and number, and decreasing the number of adipose cells is very difficult to do as an adult. Adults who were obese during their childhood will be more likely to have more severe obesity and symptoms compared to adults who were not obese as a child (Freedman , et al., 2005).

Similar to adults, there are a plethora of diseases and conditions associated with obesity in children. Cardiovascular disease (CVD) has several risk factors including hypertension, high cholesterol, and diabetes. 70% of children who were obese had at least one of the listed CVD risk factors. 39% of obese children were shown to have 2 or more CVD risk factors. Compared to their normal weight peers, obese children have a higher risk of developing type II diabetes, impaired glucose tolerance, and insulin resistance (Whitlock et al., 2005). Increased neck circumference due to fat was associated with sleep apnea and other breathing complications. Joint, muscle, skeletal, liver, kidney, and stomach diseases were all complications that can arise from obesity in children (Taylor, et al., 2006).

The Demographics of Obesity

Age

Adults aged 40-59 years old had the highest incidence of obesity, followed by adults 60 years old or above, and adults 20-39 years old (Ogden et al., 2014). Adults aged 40-59 had a higher prevalence of Class III obesity compared to adults that did not fall into this age range. Ogden et al. (2014) also revealed that children 12-19 years old had the highest rate of obesity at 20%, children aged 6-11 years had a prevalence of 17.7%, and children aged 2-5 years old had a prevalence of 8.4%. Almost 14% of adolescents aged 12-19 years old had a BMI greater than or equal to 30. The prevalence of Class III obesity was higher in middle aged adults compared to adults aged 20-39 years old. The prevalence of childhood obesity has remained unchanged since a 2003-2004, but the prevalence of obesity amongst 2-5 year old has declined. There was also no change in prevalence amongst adults other than that age 60 years and above group which had an increase in obesity prevalence (Ogden et al., 2014).

Gender

In 2011-2012, boys and girls had a similar obesity prevalence. About 6.4% of adults were classified as having Class III obesity. Among adults, women were more likely to have a higher prevalence of Class III obesity than men. As mentioned in the previous subsection, adults 60 years and older have had an increase in obesity prevalence since 2003-2004, but this trend only applied to women and not men (Ogden et al., 2014).

Race/Ethnicity

Considering adults, non-Hispanic blacks had the highest incidence of obesity, followed by Hispanics, non-Hispanic whites, and non-Hispanic Asians. Similar to adults, Hispanic and non-Hispanic black children had the highest rates of obesity followed by non-Hispanic white children and non-Hispanic Asian children; however, unlike adults, Hispanic children had a slightly higher prevalence than their non-Hispanic black peers (Ogden et al., 2014). The prevalence of Class III was also the highest amongst non-Hispanic black adults followed by Hispanics, non-Hispanic whites, and non-Hispanic Asians (Ogden et al., 2014). A study revealed that the prevalence of diabetes and hypertension was higher in non-Hispanic black people compared to non-Hispanic white people and Hispanic regardless of BMI; however, not all of these differences were statistically significant (Paeratakul et al., 2002).

Income

Income level was associated with BMI. As a country becomes more economically developed, its burden of obesity eventually shifts from the high socioeconomic status (SES) groups to the low SES groups. This particular phenomenon affects women to a much greater extent than men (Monteiro et al., 2004). To analyze the association between income and obesity, Ogden et al. (2010), categorized income into three different groups based on poverty income ratio (PIR): the first group had a PIR of greater than or equal to 350%, the second group had a PIR between 130%-350%, while the third group had a PIR less than 130%. Ogden et al. (2010) found that for the past several decades, obesity has

increased amongst all income groups; however, certain demographic groups within these income groups had a greater increase than others.

Women with lower income were more likely to be obese than higher income women (Ogden et al., 2010). Disregarding ethnicity, women with a PIR greater than 350% had a prevalence of 29.0% while women with a PIR less than 130% had a prevalence of 42.0%. Men on the other hand did not seem to exhibit a trend between income and obesity. The only notable association in relation to men was that non-Hispanic black men and Mexican-American men with lower income were less likely to be obese than those with higher income. Non-Hispanic men that had a PIR greater than 350% had a 44.5% rate of obesity compared to the 28.5% of non-Hispanic black men that had a PIR of less than 130%. Mexican-American men that had a PIR greater than 350% had a 40.8% rate of obesity compared to the 29.9% of Mexican-American men that had a PIR of less than 130%. (Ogden et al., 2010)

Similar to men, children were also inconsistent when it comes to an association between SES and BMI. A study performed by O’Dea and Caputi observed the association between SES and weight, age, and gender in children and adolescents aged 6-10 years-old. O’Dea and Caputi’s study included 1,131 participants (53.7% female) from 12 schools in South New Wales. The prevalence of overweight or obesity in children of lower SES families were twice as that of children from high SES families. Lower income children were more likely to be overweight compared to their higher income counterparts. They were also more likely to skip breakfast and skipping breakfast was correlated to increased obesity (albeit recent studies had shown that this was a very weak

correlation (Brown et al., 2013)). Lower SES children were also less likely to receive advice relating to weight control and were more likely to have had disordered eating compared to higher SES children (O'Dea & Caputi, 2001). This trend applied to both males and females.

There were also interesting relationships between income and body image perception amongst children. Generally, children of low SES groups had a higher self-esteem of their body image than children of high SES groups. Considering only the overweight, the self-esteem of low SES children remains relatively steady as they age; however, self-esteem of high SES children drops drastically as they age. Considering only the normal weight children, the self-esteem among low SES children skyrockets as they age while the self-esteem among high SES children again drops drastically as they age. But comparing the self-esteem scores of the two SES groups reveals that overweight children in general had a lower self-esteem score than normal weight children. Males tend to also had higher self-esteem of their body image than females (O'Dea & Caputi, 2001).

O'Dea and Caputi (2001) calculated the actual BMIs based on height and weight and measurements made by professionals. 8.3% of low SES males who were overweight perceived themselves to be too thin, while none of the middle/high SES males who were overweight perceived themselves to be too thin. About 12% of females in the low SES group were currently attempting to gain weight, while only 3% of females in the high/middle SES group were attempting to do so (O'Dea & Caputi, 2001).

In a related study done in Germany (explained in more detail in the *Education* subsection below) it was found that amongst 6 year-old children, 5.2% of low SES children fell into the 90th BMI percentile score, compared to 15.3% of high SES children. According to this study, low SES children were 3.3 times more likely to be obese when compared to their high SES peers (Lamerz, et al., 2005). Similar studies showing that low SES was associated with higher BMIs and an increased prevalence of diabetes and hypertension had also been conducted (Paeratakul et al., 2002).

Education

For the past several decades, obesity has increased amongst all education groups; however, certain demographic groups have had a greater increase than others. Similar to income, men did not show any significant trends between education and BMI: overall, 32.1% of men with less than a high school education are obese while 27.4% of men with a college degree were obese. Women on the other hand exhibit an inverse relationship: obesity increases with decreasing education levels. Women with college degrees were less likely to be obese than women with lesser education (Ogden et al., 2010).

A cross-sectional study in Germany in the City of Aachen on 6 year-old children (49.1% girls) examined the association between SES, parental education, and obesity prevalence (Lamerz, et al., 2005). The actual BMIs of the children for this study were calculated and measured by professionals. 1,979 total parental participants filled out the survey which features questions regarding their child's weight development and general SES information: the level of education for the mother and the father, the occupation of

both parents, the number of people who live at home, living space, number of work hours, income, and other topics.

Children were separated based on their BMI: the first group had a BMI higher than the 90th percentile while the second group included all the percentiles below 90. A bivariate analysis comparing these two groups revealed that the children's BMI percentile was strongly associated with their parents' educational level. Adjusting for all other variables, the education level of the mother was the only SES variable independently linked to childhood obesity. Mothers with no school degrees were three times more likely than mothers with 13 years of education to have children that were obese. The children who had fathers with nine or fewer years of education were 3.19 times more likely to be obese. As a general summation, parents with nine or fewer years of education were three times more likely to have children that were obese compared to parents with 13 year of education. Also, stratified analysis was used to conclude that both the education of the mother and the father were very strongly associated with the fact that both parents were overweight as well as their child (Lamerz, et al., 2005).

Obesity also has consequences on the choice of pursuing a higher education. Obese females were less likely to enter college after high school compared to females of other weight categories. This was especially obvious if they attended schools where obesity was relatively uncommon; however, if the schools obese females attend had a good obese female population, then the odds of them entering a college was near equal to that of non-obese females. Children who were obese during middle school and high

school had lower rates of college enrollment compared to children of other weight categories. (Crosnoe, 2007).

Education level seems to be strongly related to the choices people make; this will ultimately affect their weight and their children's weight. For example, adults with a lower education level were more likely to bottle-feed their children rather than breastfeed them, possibly because they were uninformed about the benefits of breastfeeding. Women of higher educational groups were more likely to exhibiting healthy eating habits and to exercise. It was also important to point out that children who went to higher social status schools displayed more undesirable attitudes towards obesity compared to those children who did not attend these schools. Of course, one cannot rule out the complex and multitude of differences in the cultural and social practices between parents of high and low education (Lamerz, et al., 2005). Similar studies showing that lesser education was associated with higher BMIs and an increased prevalence of diabetes and hypertension had also been conducted (Paeratakul et al., 2002)

It can generally be concluded that an increased education has a positive effect on BMI for adults and children. A study by Sassi et al. (2009) examined the effects of education on obesity in Australia, Canada, England and Korea. They explained that this association between education and obesity can perhaps be explained by several factors. First, those with more education were more likely to be more well-informed about health in general. Second, education can help determine the risks and benefits associated with each decision. Finally, higher education was theorized to be related to better self-control over time (Sassi et al., 2009).

Weight Loss Strategies

Adults

About one-half of all Americans are currently attempting to lose weight. A study by Kruger, Blanck, & Gillespie examined the most common methods of weight loss in adults aged 18 years old or older in the United States. This survey based study mainly focused on the eating habits and physical activity behaviors exhibited by adults successful at weight loss maintenance. Although this study mainly focused on those who successfully lost weight, the tables presented in this study also had information regarding unsuccessful weight losers. Considering the ethnicities, about 1,400 participants were white, and around 440 were Hispanics and blacks combined. Education levels ranged fairly evenly from the completion of high school to college graduates. About 62% of the respondents were female (Kruger, Blanck, & Gillespie, 2006).

The most common methods of weight loss were as follows from the most common to the least common: reduced amounts of food (80%), more fruits and vegetables (71%), smaller portions (65%), fewer fatty foods (60%), no sweetened beverages (57%), exercise greater than or equal to 30 minutes per day (47%), add physical activity to daily routine (47%), reduce high-carbohydrate foods (40%), eat reduced-fat products (40%), reduced-calorie products (39%), reduce food prepared away from home (36%), eat reduced-carbohydrate food products (26%), reduce sedentary activity (22%), count calories (20%), food diary (13%), meal-replacement products (11%), over-the-counter diet products (10%), formal weight-loss program (7%), and finally a web-site with individualized diet plan (3%). In retrospect, a little more than

1,600 people reported reducing their food intake to lose weight while only 735 people said they added PA to their daily routine. As shown from the results of this study, it seems that people generally prefer approaches related to eating in order to lose weight (Kruger, Blanck, & Gillespie, 2006). Counting the 19 methods listed, only three were related to physical activity while most of the rest were related to eating habits. The chance of successfully losing weight was shown not to differ amongst different ethnicities, level of education, or SES groups. But, women were less likely to be successful at weight loss than men (Kruger, Blanck, & Gillespie, 2006). Other studies had found similar results to Kruger, Blanck, & Gillespie's study (Field, et al., 2009; Zhao et al., 2009; Bish, et al., 2007; Weiss et al., 2006; Kruger et al., 2004; Serdula, et al., 1999).

Serdula et al.'s (1999) study was a random-digit telephone survey of majority white adults from the 1996 Behavioral Risk Factor Surveillance System. More women (43.6%) reported losing weight than men (28.8%). About 90% of participants reported altering their eating habits to lose weight while two-thirds reported using PA. Exactly 42.3% of men and 36.8% of women reported using PA to lose weight. The combination of eating fewer calories and exercising for at least 150 minutes per week was reported by 21.5% of men and 19.4% of women (Serdula, et al., 1999). Kruger et al.'s (2004) study analyzes the results from the 1998 National Health Interview Survey. In this study, adults opted to eat fewer calories to lose weight (58% of men and 63% of women) and reported exercising more to lose weight (54% of men and 52% of women). Only one-third claimed to be using both calorie reduction and exercise to lose weight. The likelihood of

attempting to lose weight increased with increasing level of education (Kruger et al, 2004).

The prevalence of attempting weight loss strategies and the types of weight loss strategies differs by gender, age, BMI, education, and race. According to Juila et al., women tend to start dieting at an earlier age and more repeatedly compared to men due to a plethora of social stressors which favor thinness. The difference between male and female dieting habits can be explained by the double standards regarding media portrayal of the ideal body and familial and peer pressure to be thin which was primarily directed towards women. According to Julia et al.'s (2014) study of nearly 13,000 people in France, dieters were more likely to be women, to be younger adults, to be currently employed, to have a greater BMI, and to be former smokers. A study by Zhao et al., (2009) found that in adults, the prevalence of attempting to lose weight increased until the age of 59 years old when it then plummeted afterwards. The authors also found that non-Hispanic blacks were less likely than non-Hispanic whites to attempt to lose weight and those with a higher level of education were more likely than those of a lesser education to lose weight. Exactly 21% of Zhao et al.'s (2009) sample adopted *only* dieting to lose weight while 10.9% *only* increased their PA to lose weight. Nearly 64% of the sample adopted both dieting and increased PA to lose weight (Zhao et al., 2009).

Unlike Julia et al.'s (2014) and Zhao et al.'s (2009) studies, Weiss et al.'s (2006) study did not find any strong associations between age and weight loss prevalence in men and women. Weiss et al.'s (2006) contained data from the 2001–2002 National Health and Nutrition Examination Survey.

Children

About 25% of high school students in the United States perceive themselves to be overweight and about 75% of these students were trying to lose weight. In a survey of over 3,000 mainly white adolescents, 61.5% of females and 21.5% of males reported trying to lose weight (Middleman, Vazquez & Durant, 1998). Amongst females 68% of white females, 50% of black females, 56% of Hispanic females, reported attempting to lose weight. Amongst males, 35% of white males, 24% of black males, 25% of Hispanic males reported attempting to lose weight (Middleman, Vazquez & Durant, 1998).

A study by Felts et al. (1996) examined adolescents' perceptions of relative weight and self-reported weight-loss activities. This cross-sectional study used data obtained from the 1990 Youth Risk Behavior Survey (YRBS). A total of 10,870 participants (51.2% female) including black (19.6%), Hispanic (19.7%), and white (54.2%) adolescents were included in this survey. From this sample, 24.8% participants perceived themselves to be too fat. More than a third (34.6%) of females reported being too fat while only 14.4% of males perceived themselves as being too fat. From those 24.8% that perceived themselves as being too fat, 76.4% were trying to lose weight. About 26.0% of white adolescents reported being too fat, while 23.9% of Hispanics and 17.2% of blacks reported being too fat. White adolescents who reported being too fat were more likely than Hispanics or blacks to say they were trying to lose weight (Felts et al., 1996).

In Felts et al.'s paper, the two most common approaches for weight loss in this age group were skipping meals (67%) and exercise (exact percentage not given). The

ethnicity groups most likely to skip meals in order from most to least were Hispanics (72.2%), whites (63.3%), and blacks (55.0%). Females were also more likely to have skipped meals than males (exact percentages not given). The ethnicity group most likely to exercise was the white students (76.7%), followed by Hispanics (69.4%), and then blacks (61.4%). Males were also likely to exercise (60.5%) than females (48.9%) in order to lose weight or prevent themselves from gaining weight. In addition to skipping meals and increasing levels of exercise, other methods of weight loss, albeit unpopular, were used by students to lose weight. About 2.5% of students who perceived themselves to be overweight use diet pills and 2.0% purging as methods to lose weight. There was no relationship between the different demographics and whether the pill or purging was used (Felts et al., 1996).

A separate study by Alm et al. (2009) revealed somewhat similar results. A sample of 130 OWOB (BMI above the 85th percentile) adolescents aged 12-20 years olds were asked about their weight loss strategies and also whether they frequently or infrequently measured their weight. The sample consisted of 84 females and 46 males. The mean age of all participants was 15.2 years old. About 60% of the sample consisted of non-Hispanic white adolescents while the rest were of minority ethnicities. It was concluded that amongst the frequent weighers, 78.4% increased the time spent exercising, 60.6% decreased calorie intake, and 72.8% ate less junk food or sweets (Alm et al., 2009). Unlike Felts et al.'s study, this study found that increasing PA was the more popular choice when compared to dieting for adolescents.

Using PA to lose weight was gaining popularity amongst adolescents. Lowry et al. (2005) analyzed data from the Youth Risk Behavior Surveillance System and found that using exercise for weight control significantly increased from 1991-2001 for adolescents. Similar to the previous studies above, females were still more likely to attempt to lose weight than males. From 1991-2001, the percentage of females trying to lose weight did not significantly increase (61.7%–62.3%); however the percentage of males trying to lose weight did significantly increase (22.7%–28.8%). Amongst girls trying to lose weight 63.4% were white, 61.7% were Hispanic, and 46.6% were black. Amongst the boys trying to lose weight 23.8% were white, 34.3% were Hispanic, and were 20.6% black. Girls also had 50% significantly lower odds to using vigorous PA to lose weight as compared to boys (Lowry et al. 2005).

Both Felts et al. (1996) and Boutelle et al. (2001) found similar results regarding the difference in prevalence of vigorous PA between boys and girls. In Boutelle et al.'s (2001) study, over 8,000 adolescents were surveyed regarding their weight control behaviors. Only considering the OWOB adolescents in this sample, females were more likely to diet than males (52% and 26% respectively). OWOB females were also more like to use PA to lose weight as compared to males (67% and 63% respectively); however, females were less likely to preformed vigorous PA as compared to males (54% and 78% respectively) (Boutelle et al. 2001).

Parent-Child Influences

From the O’Dea and Caputi study described more explicitly in the *Income* subsection of *The Demographics of Obesity* section, it was shown that parents have a huge influence on the choices their child makes. Both the males and females in this study reported that their major influences regarding weight loss came from (in order of importance): their mother, father, peers, siblings, grandmother, aunt/uncle, opposite sex, and doctor. The sources of influence did not vary by demographics including SES groups, gender, or age. The main conclusion from this section of the study was that parents are the primary influencers on their child.

A two-year study performed by Moore, et al, described the influence of parents' physical activity levels on physical activity levels of their young children. This study featured children ages 4-7 years old. The participants for this study were taken from the Framingham Children's Study (FCR) which was a longitudinal study that had 3,534 participants in the United States. The people chosen for Moore, et al study had to meet several requirements: all participants had to be third and fourth generation members of the FCR, the parents had to have at least one biological child between the appropriate ages, and all the households were categorized as regular middle-class. After narrowing down the total FCR participants, the total number used for Moore, et al’s study was 106 households. Considering the education status of the mother and father, 35.8% and 31.1% completed some high school respectively, 27.4% and 23.6% completed some college respectively, 26.4% and 23.6% were college graduates respectively, while 7.5% and 14.2% were in graduate training respectively (Moore, et al., 1991).

During the first year of the study, extensive interviews, blood content measurements and dietary habits were recorded. During the second year, physical activity levels were measured. The levels of physical activity were measured using a Caltrac accelerometer. This tool was sensitive to different kinds of physical activity. (Moore, et al., 1991)

Considering parents and children separately, it turns out that the mean number of Caltrac counts per hour was higher for fathers than for mothers. The mean number of Caltrac counts was also higher for boys than for girls. All children had significantly higher physical activity Caltrac count means than the parents. This study showed that the active mothers were two times more likely to have had children that were physically active compared to the children of inactive mothers. If only the father was active then the child was still 3.5 times more likely to be active compared to the children of two inactive parents. There was no correlation found when trying to separate the activity of the mother or father on girls or boys. If both the mother and the father were active, then their children were 5.8 more times as likely to be active when compared to children of two inactive parents. To put these results in a different perspective, it can be said that when both the mother and father were active, 68% children were active, and when both the mother and the father were inactive, 27% children were active (Moore, et al., 1991).

A more recent study in 2011 similarly revealed that greater parental moderate-to-vigorous activity (MVPA) was linked to increased child MVPA. Having two parents with higher levels of MVPA was also linked to increased child MVPA. PA was measured using an accelerometer. This study included 57 parent-child triads in the USA with the

children being in either 4th or 5th grade. 70% of the participants were non-Hispanic white people while the rest of the 30% were minorities and most of the participants fell into the medium-high SES categories. This study also revealed that father and son MVPA were positively and significantly correlated. This relationship was not presented for the mother and son. There was a strong positive and significant relationship between mother and daughter MVPA. This relationship was significantly weaker for father and daughter. The number of active parents and the MVPA levels of children were also positively linearly related (Fuemmeler, Anderson, & Mâsse, 2011). Unlike Moore, et al.'s study, (which determined that parental PA was more effective on boys) the difference between child gender and the number of active parents was not found (Fuemmeler, Anderson, & Mâsse, 2011). A study by Jago et al. (2011) found that maternal support was associated with girls' PA while paternal support was associated with boys' PA for children aged 10-11 years old.

A relatively older observational study performed in 1986 revealed that a greater number of parental encouragements on their child to eat were associated with lower numbers of parental encouragements on their child to be active (Klesges et al., 1986). And in a recent study which examined home environment, SES, and PA, it was revealed that regardless of SES, children watched TV/DVDs with their parents or siblings more often than engaging in PA with them. Parents of lower SES watched TV/DVDs with their children more often (3.1 days/week) when compared to parents and children of higher SES (2.5 days/week) (Tandon, et al., 2012). In a systematic review of reviews it was concluded that parental SES might be more pertinent for adolescents than for children in

relation to PA. The reviews also showed that parental PA appears to be more important for children than adolescents (Vet, Ridder, & Wit, 2010).

With regards to eating habits, parents play a large role in the nutrient intake of their children. A study by Brown & Ogden (2003) was conducted to determine the relationship between parent modelling and influence on children's eating habits and behaviors. This study recruited 112 parent/child pairs in southern England. The parents were mostly mothers but the children were nearly evenly split between boys and girls. The ages of the children ranged from 9-13 years old. The primary results of this study were that there were significant relationships between dyad unhealthy food consumption, body perception and body dissatisfaction. This indicates that parents play a large role in shaping the eating habits of their children (Brown & Ogden, 2003). A study by Oliveria et al. (1992) also strengthened that idea that parents play a large role in their children's' eating habits. This study analyzed data from the Framingham Children's Study. The study participants consisted of 106 families whom were all white and part of the middle class. The age of the children ranged from 3-5 years old. According to this sample, nutrient intake of the child was more closely related to the mother than to the father (Oliveria et al., 1992).

A thorough review paper was released by Patrick and Nicklas in 2013 describing the many factors which affect a child's diet. This review stated that even children as young as two years old had food preferences similar to their mothers' food preferences. This also has cultural implications as well. One study in the review showed that Mexican children were more likely to be accepting of spicy foods of their parent also modelled

eating spicy foods. This review strengthens that idea that “children’s food-related knowledge, preferences, and consumption were related to parents’ preferences, beliefs, and attitudes toward food” (Patrick & Nicklas, 2013). An individual study examined the effect of maternal and paternal dietary inhibition and disinhibition of the BMI status of their children (Cutting et al., 1999). Exactly 75 preschool children and their parents were recruited for this study. The primary ethnicity in this sample was white adults and children. This study concluded that only maternal dietary disinhibition was highly correlated with the daughters’ overweight status; however, no other significant relationships were observed for any of the other parent-child pairings- e.g. father and daughter.

Chapter 3

METHODS

Study Design and Participants

The data obtained for this study were compiled from the New Jersey Childhood Obesity Study (NJCOB). This cross-sectional study took place from 2009-2010 and phone interviews were executed over an eight month period. A random digit dial household phone survey was used to select participants. A total of 1,708 adults from five cities in New Jersey (Camden, New Brunswick, Newark, Trenton, and Vineland) participated in the survey. These five cities were comprised of mainly low income and minority families. Eligible adult respondents were those who made decisions about food shopping for the household; only households with at least one child aged 3-18 were included. The focus child was randomly chosen by a computer and was referred to as the index child. About 94% of the adult respondents were the parent of the child, and all adults in this document will be referred to as the parents. The total response rate, calculated using the American Association for Public Opinion Research (AAPOR) criteria response rate 3, was about 49%. The survey was performed by a survey company and the interviews were conducted in English or Spanish. The entire survey was 66 pages and took an average of 36 minutes to complete. The respondents were gifted a \$10 check for their participation. Only participants who perceived themselves and/or their children as “slightly overweight” or “overweight” were included in the analytical dataset.

The survey questions used in the current analysis were adapted from the Centers for Disease Control and Prevention and the UCLA Center for Health Policy and Research

(BRFSS 2005 Survey Data and Documentation, 2014; CHIS Questionnaires). This study was approved by the Institutional Review Boards of Arizona State University and Rutgers University.

Explanatory Variable

Demographic information including gender, age, height, weight, race/ethnicity, income, and education were obtained for each adult respondent and index child for the respondent. Information on whether the respondent perceived themselves to be OWOB was determined by the question “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?” In addition to these answers, there were also “Don’t Know” and “Refused” options.

These same questions were also asked in regard to the index child: “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?” In addition to these answers, there were also “Don’t Know” and “Refused” options. (This question was modified from CHIS adolescent survey.)

Outcome Variable

The outcome variables for the current analysis were 1.) what methods to lose weight were used by adults who perceived themselves to be OWOB; 2.) what methods to lose weight were used by children whose parents perceive them to be OWOB. Respondents who perceived themselves to be slightly overweight or very overweight

were asked: “Are you doing anything to lose weight?” The possible answers were “Yes”, “No”, “Don’t Know”, or “Refused”. Those responding with a “Yes” were further asked: “Are you trying to eat differently to lose weight?” and “Are you using any form of physical activity to lose weight?” The possible answers for both of these questions were “Yes”, “No”, “Don’t Know”, or “Refused”. Similar questions were asked for the index child as well.

Statistical Analysis

All analysis were conducted using SPSS version 23. Descriptive analysis were conducted to examine the distribution of variables included in the analysis. The extent to which the parent- child dyads employed the same strategies for losing weight was determined by categorizing parent-child pairs into different categories as described in Table 1. Bivariate differences between demographic characteristics and types of strategies adopted by parents, children, and parent-child dyads were examined using chi-squared tests. Multivariate logistic regression analyses was used to investigate possible relationships between each demographic variable and the outcome after adjusting for the effects of other demographic variables. All statistical tests were considered significant at $p < 0.05$.

Bivariate analysis using primarily chi-square tests and bivariate logistic regression were used to address the hypotheses presented in this study. The non-Hispanic white race/ethnicity category was combined with the Other race/ethnicity category for both adults and children due to a low number of non-Hispanic white participants. Those with missing relevant demographic variables were excluded from the OWOB adult, OWOB

child, and dyad OWOB samples (n=49, n=17, and n=10 respectively). Those with missing demographic variables had either immigration status and/or parental education level missing. Those with missing outcome variables were grouped into the “No” category for the OWOB adult, OWOB child, and dyad OWOB samples (n=358, n=55, and n=67 respectively).

McNemar’s test was performed to determine whether there is a statistically significant difference between choosing eating vs PA for OWOB adults sample (n=1081). Bivariate analysis was performed to determine the association between adult-level characteristics and the type of mutually exclusive weight loss strategy used by OWOB adults. Logistic regressions were performed to analyze the association between adult-level characteristics and type of weight loss strategy of OWOB adults. Similar to the adult OWOB sample, in the child OWOB sample (n=304) McNemar’s test was performed to determine whether there is a statistically significant difference between choosing eating vs PA among OWOB children. Bivariate analysis was performed to determine the association between child/adult-level characteristics and the type of mutually exclusive weight loss strategy used by OWOB children. Logistic regressions were performed to analyze the association between child/adult-level characteristics and type of weight loss strategy of OWOB children. A table similar to Table 1 below was constructed to determine the concordance between parent-child dyad weight loss strategies for the OWOB dyad sample (n=231). Separate bivariate analyses were performed to determine the association between the weight loss strategies of the OWOB parent by the weight loss strategies of their OWOB child. The non-mutually exclusive weight loss strategies included eating, PA, and not trying to lose weight. Unadjusted ORs

were also included to determine the likelihood of a child performing a certain weight loss strategy if the parent also performs that same weight loss strategy. The OWOB children were also stratified by age in order to determine the association between the weight loss strategies of the OWOB parent by the weight loss strategies of their OWOB younger (2-11 years) or older (12-19 years) child. Unadjusted ORs were also performed for these two age groups. Similar analyses were performed after stratifying the OWOB children by gender.

Table 1

Categorizing Weight Loss Strategies Adopted by Parent-Child Dyads

	Parent Eating	Parent PA	Parent Both	Parent Neither
Child Eating	SAME EATING	DIFFERENT	DIFFERENT	DIFFERENT
Child PA	DIFFERENT	SAME PA	DIFFERENT	DIFFERENT
Child Both	DIFFERENT	DIFFERENT	SAME BOTH	DIFFERENT
Child Neither	DIFFERENT	DIFFERENT	DIFFERENT	SAME NONE

RESULTS

Descriptive Characteristics and Statistics

Table 2 presents the descriptive characteristics of the three study samples. The adult OWOB sample (n=1032) was composed of adults who perceive themselves to be OWOB, the child OWOB sample (n = 304) was comprised of children whose parents perceive them to be OWOB, and the dyad OWOB sample (n = 231) was comprised of adults who perceive themselves to be OWOB and their child who was also perceived as OWOB.

In the adult OWOB sample, 85.4 % were female, about half (49.5%) of the adults were between the ages of 35-49 years, 29.8% were 18-34 years and the remaining 20.6% were greater than or equal to 50 years. There was a slightly higher number of non-Hispanic black adults (43.6%) compared to Hispanic adults (39.7%), and the remaining were non-Hispanic White adults (12.1%) and other race/ethnicities (2.4%). The race/ethnicity of the child also followed a similar pattern as the adult: 41.4% were non-Hispanic blacks, 43.7% were Hispanic, 12.1% were non-Hispanic White, and 2.8% were of other race/ethnicities. Nearly two-thirds of the households in this sample (66.1%) were living at or below 200% of the federal poverty level. The majority of the adult respondents (74.2%) had been born in the United States. Over half (55.7%) of the mothers received a high school education or less, 26.3% completed some college, and 18% at least completed college.

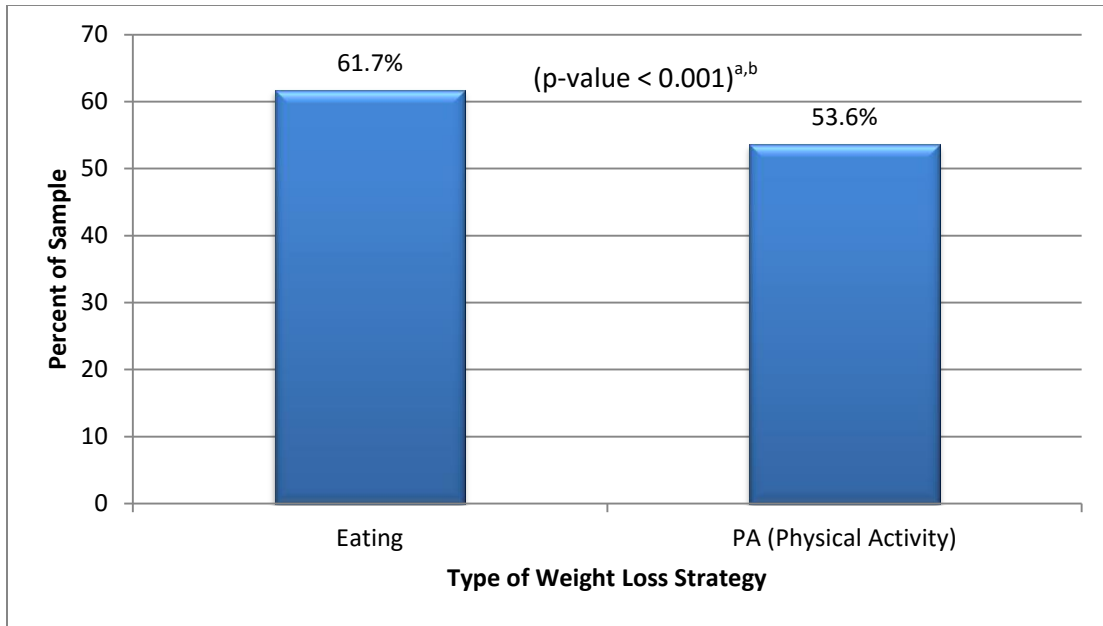
In the child OWOB sample, about half (53.3%) were female, about half (55.9%) of the children were between the ages of 12-19 years, 39.5% were 6-11 years and the remaining 8.2 were 2-5 years. Nearly half of the child OWOB sample was Hispanic (50.3%), 36.5% were non-Hispanic black, 9.5% were non-Hispanic white, and 3.6% were comprised of other race/ethnicities. The majority of the households in this sample (70.4%) were living at or below 200% of the federal poverty level. The majority of the parents of these children (67.4%) had been born in the United States. Over half (63.5%) of the parent/mothers of the children received a high school education or less, 24.0% completed some college, and 12.5% at least completed college.

In the dyad OWOB sample, 88.7 % of the adult respondents were female, over half (57.1%) of the adults were between the ages of 35-49 years, 22.9% were 18-34 years and the remaining 19.9% were greater than or equal to 50 years. About 53.7% of the children in this sample were female, Over half (57.1%) of the children in this sample were 12-19 years, 35.1% were 6-11, and 7.8% were 2-5 years. There was a higher number Hispanic adults (48.1%) compared to non-Hispanic Black adults (37.2%), and the remaining were non-Hispanic White adults (12.1%) and other race/ethnicities (2.6%). The race/ethnicity of the child also follows a similar pattern as the adult: 51.1% were Hispanic, 35.5% were non-Hispanic black, 10.4% were non-Hispanic White, and 3.0% were of other race/ethnicities. The majority of the households in this sample (71.9%) were living at or below 200% of the federal poverty level. The majority of the adult respondents (67.5%) had been born in the United States. The majority (64.5%) of the mothers received a high school education or less, 22.1% completed some college, and 13.4% at least completed college.

Table 2

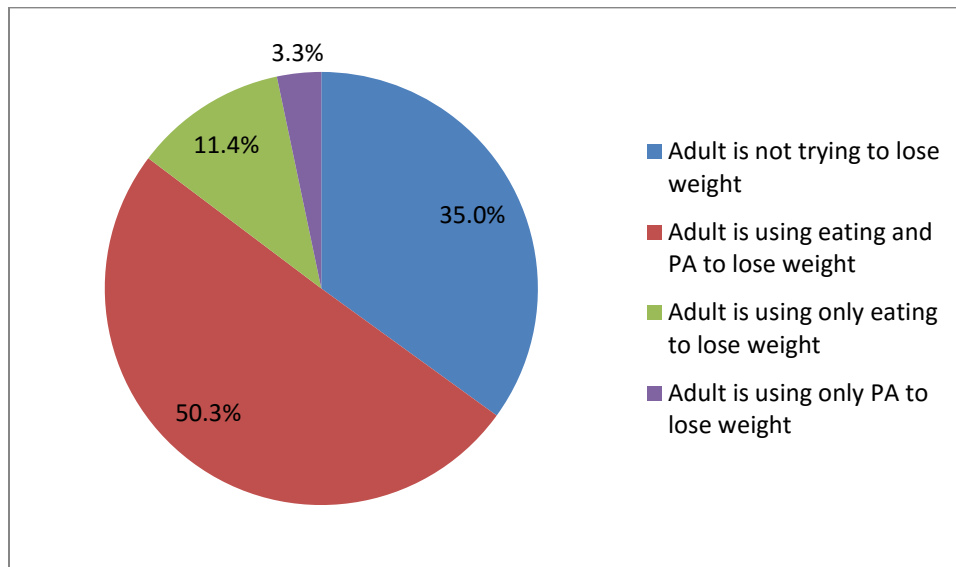
Description of Study Samples

	Adult OWOB Sample (%) n=1032	Child OWOB Sample (%) n=304	Dyad OWOB Sample (%) n=231
Gender of Adult			
Female	85.4		88.7
Male	14.6		11.3
Gender of Child			
Female		53.3	53.7
Male		46.7	46.3
Age of Adult			
18-34	29.8		22.9
35-49	49.5		57.1
50+	20.6		19.9
Age of Child			
2-5.		8.2	7.8
6-11.		39.5	35.1
12-19.		55.9	57.1
Race/Ethnicity of Adult			
Hispanic	39.7		48.1
Non-Hispanic Black	43.6		37.2
Non-Hispanic White	14.2		12.1
Other	2.4		2.6
Race/Ethnicity of Child			
Hispanic		50.3	51.1
Non-Hispanic Black		36.5	35.5
Non-Hispanic White		9.5	10.4
Other		3.6	3
Poverty Category			
< or equal to 200%	66.1	70.4	71.9
> 200%	33.9	29.6	28.1
Immigraton Status of Adult			
Born in the US	74.2	67.4	67.5
In US for > or equal to 10 yrs	20.3	26.6	26.8
In US for < 10 yrs	5.5	5.9	5.6
Adult/Mother's Education Level			
High School or less	55.7	63.5	64.5
Some College	26.3	24	22.1
College+	18	12.5	13.4



- ^a Significance was determined at the 0.05 level (2-tailed)
- ^b Significance obtained from McNemar's Test
- ^c The two types of weight loss strategies are not mutually exclusive

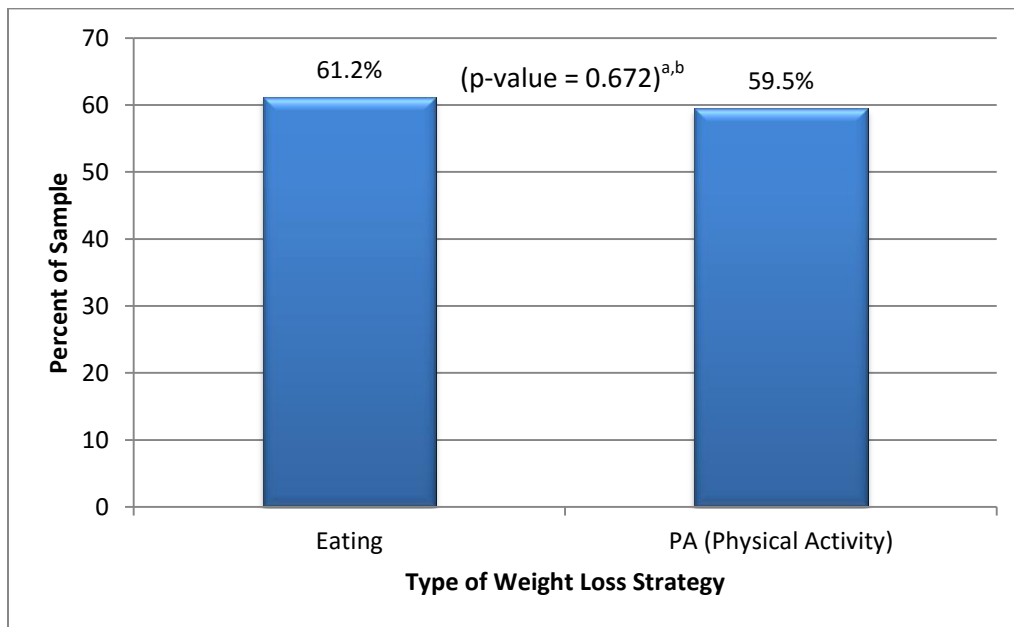
Figure 1. Non-Mutually Exclusive Weight Loss Strategies Reported by Adults Who Perceive Themselves to be OWOB (n = 1032)



- ^a The four types of weight loss strategies in this figure are mutually exclusive

Figure 2. Mutually Exclusive Weight-Loss Strategies Reported by Adults Who Perceive Themselves to be OWOB (n = 1032)^a

Figure 1 shows the prevalence of strategies to lose weight amongst adults who perceive themselves to be OWOB. About 62% of adults chose eating to lose weight (with or without PA) and 53.6% of adults use PA to lose weight (with or without eating). Using McNemar’s test, we find that there was a significant difference between choosing eating and PA to lose weight ($p < 0.001$). To put this into a different perspective, Figure 2 was created using four mutually exclusive categories. Figure 2 reveals that 11.4% of adults use only eating to lose weight, 3.3% use only PA, 50.3% use both eating and PA, while the remaining (35.0%) were not trying to lose weight.

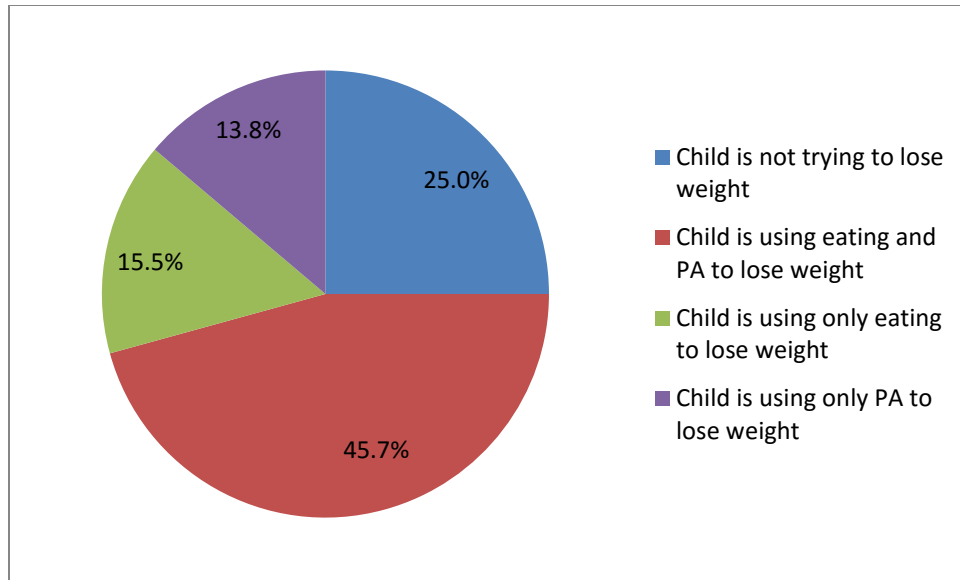


^a Significance is determined at the 0.05 level (2-tailed)

^b Significance obtained from McNemar’s Test

^c The two types of weight loss strategies are not mutually exclusive

Figure 3. Non-Mutually Exclusive Weight-Loss Strategies for Children Whose Parents Perceive Them to be OWOB (n = 304)



^a The four types of weight loss strategies in this figure are mutually exclusive

Figure 4. Mutually Exclusive Weight-Loss Strategies for Children Whose Parents Perceive Them to be OWOB (n = 304)^a

Figure 3 shows the prevalence of strategies to lose weight amongst children whose parents perceive them to be OWOB. About 61% of children use eating to lose weight (with or without PA) and 59.5% of children use PA to lose weight (with or without eating). Using McNemar's test, we find that there was not a significant difference between choosing eating and PA to lose weight ($p = 0.672$). To put this into a different perspective, Figure 4 was created using four mutually exclusive categories. Figure 4 reveals that 15.5% of children use only eating to lose weight, 13.8% use only PA, 45.7% use both eating and PA, while the remaining (25.0%) were not trying to lose weight. Using the dyad OWOB sample ($n=231$), Table 3 presents four mutually exclusive weight loss strategies for both the parent and the child: just eating, just PA, both eating and PA, and not trying to lose weight. Table 3 shows that 46.3% of the parent-child dyads used concordant strategies.

Table 3

Concordance between Parent and Child Dyad Weight Loss Strategies (n=231)^a

		Parental Weight Loss Strategies n (% of total) ^b				Total
		Just Eating	Just PA	Both Eating and PA	Not Trying to Lose Weight	
Child Weight Loss Strategies n (% of total) ^b	Just Eating	10 (4.3%)	0 (0.0%)	15 (6.5%)	8 (3.5%)	33 (14.3%)
	Just PA	5 (2.2%)	0 (0.0%)	17 (7.4%)	13 (5.6%)	35 (15.2%)
	Both Eating and PA	16 (6.9%)	2 (0.9%)	69 (29.9%)	20 (8.7%)	107 (46.4%)
	Not Trying to Lose Weight	5 (2.2%)	1 (0.4%)	22 (9.5%)	28 (12.1%)	56 (24.2)
Total		36 (15.6%)	3 (1.3%)	123 (53.3)	69 (29.9%)	231 (100%)

^a Statistical analysis performed using chi-square test for independence crosstabulation tables.

^b Percentages may not add up to 100 due to rounding

Bivariate Analysis

Table 4 utilizes the adult OWOB sample (n=1032) and examines the bivariate relationship between adult-level characteristics and type of weight loss chosen using chi-square statistical analysis. Results from Table 4 indicate that there was a significant difference between the proportion of adult males and females choosing different types of weight loss strategies (p=0.01). More males reported using only eating strategies to lose weight than females (7.3% and 12.1% respectively). More males reported utilizing both eating and PA to lose weight than females (60.3% and 48.6% respectively) and 27.2% of the males reported not trying to lose weight compared to 36.3% of the females. The primary weight loss strategy for both groups was both PA and eating (60.3% for males and 48.6% for females).

There was also a significant association between the proportion of adults in different age categories and the type of weight loss strategy selected (p=0.044) and race/ethnicity and the type of weight loss (p=0.001). Those between the ages of 35-49 years reported using both eating and PA to lose weight more than those aged 18-34 and

50+ years (53%, 48.1%, and 46.9% respectively). Regarding not trying to lose weight, the corresponding numbers were 31.1%, 38.6%, and 39% respectively. About 12% of those between the ages of 18-34 years, 11.2% of those between the ages of 35-49 years, and 11.3% of those aged 50+ years reported using just eating to lose weight. About 1.3% of those between the ages of 18-34 years, 4.7% of those between the ages of 35-49 years, and 2.8% of those aged 50+ years reported using just PA to lose weight. There does not seem to be any linear trend between age and a type of weight loss. Non-Hispanic blacks reported using both PA and eating to lose weight more compared to Hispanics and Others (54.4%, 46.8%, and 47.7% respectively). Regarding using just eating to lose weight, the corresponding numbers were 6.7%, 16.1%, and 12.8% respectively. The primary weight loss strategy for all groups was both PA and eating (46.8% for Hispanics, 54.4% for non-Hispanic blacks, and 47.7% for Others). Amongst those not trying to lose weight 33.9% were Hispanic, 36.2% were non-Hispanic black, and 34.3% were Others.

There was also a significant association between of the proportion of adults in different poverty categories and the type of weight loss strategy selected ($p < 0.001$) and adult/mother's education level and the type of weight loss ($p = 0.005$). Among adults with a household income $> 200\%$ of the poverty line 10.3% used eating only strategies, 3.7% used PA only strategies, 48.3% used both, and 27.1% reported not trying to lose weight. Among adults with household income at or below 200% of the poverty line, the corresponding numbers were 3.1%, 12%, 45.9%, and 39% respectively. Those with a college+ level of education reported using both eating and PA to lose weight more than those who completed some college and those who just completed high school (58.6%, 54.6%, and 45.6% respectively). Regarding using just eating to lose weight, the

corresponding numbers were 12.4%, 7.7%, and 12.9% respectively. Regarding using just PA to lose weight, the corresponding numbers were 3.2%, 1.8%, and 4% respectively.

Those with a college+ level of education reported not trying to lose weight less than those who completed some college and those who just completed high school (25.8%, 35.8%, and 37.6% respectively). There was no significant relation between immigration status and type of weight loss (p=0.07).

Table 4

The Association between Adult-Level Characteristics and Type of Weight Loss Strategy of Adults Who Perceive Themselves to be OWOB (n = 1032)^a

	Type of Weight Loss Strategy (%)^{e,f}					<i>p-value</i> ^b
	<i>n</i>	Just Eating (%)	Just PA (%)	Both PA and Eating (%)	Not Trying to Lose Weight (%)	
Gender						
Female	881	12.1	3	48.6	36.3	0.01
Male	151	7.3	5.3	60.3	27.2	
Age						
18-34	308	12	1.3	48.1	38.6	0.044
35-49	511	11.2	4.7	53	31.1	
50+	213	11.3	2.8	46.9	39	
Race/Ethnicity^c						
Hispanic	410	16.1	3.2	46.8	33.9	0.001
Non-Hispanic Black	450	6.7	2.7	54.4	36.2	
Other	172	12.8	5.2	47.7	34.3	
Poverty Category^d						
< or equal to 200%	682	3.1	12	45.9	39	<.001
> 200%	350	10.3	3.7	58.9	27.1	
Immigraton Status						
Born in the US	766	9.9	3.9	51.4	34.7	0.07
In US for > or equal to 10 yrs	209	16.3	1.4	48.3	34	
In US for < 10 yrs	57	14	1.8	42.1	42.1	
Adult/Mother's Education Level						
High School or less	575	12.9	4	45.6	37.6	0.005
Some College	271	7.7	1.8	54.6	35.8	
College+	186	12.4	3.2	58.6	25.8	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

^c Due to their low number, non-Hispanic whites were combined with the other category

^d Based on 2008 federal poverty level criteria.

^e Categories are mutually exclusive

^f Percentages may not add up to 100 due to rounding

Table 5 examines the bivariate relationship between child/adult-level characteristics and type of mutually exclusive weight loss strategy chosen by OWOB children using chi-square statistical analysis. No significant relationships were observed in these comparisons. The only variable approaching significance ($p=0.054$) was parental immigration status; however, those foreign born and living in the US for < 10 years had a very small cell size ($n=18$). Among children from households with US born parents, 12.7% used eating only strategies, 15.1% used PA only strategies, 42.2% used both, and 29.8% reported not trying to lose weight. Among children from households with non-US born parents living in the US for over 10 years, the corresponding numbers were 22.2%, 12.3%, 51.9%, and 13.6% respectively. Among children from households with non-US born parents living in the US for greater than or equal to 10 years, the corresponding numbers were 22.2%, 12.3%, 51.9%, and 13.6% respectively. Among children from households with non-US born parents living in the US for < 10 years the corresponding numbers were 16.7%, 5.6%, 55.6%, and 22.2% respectively.

Table 5

The Association between Child/Parent-Level Characteristics and Type of Weight Loss Strategy of Children Whose Parents Perceive Them to be OWOB (n = 304)^a

	n	Type of Weight Loss Strategy (%) ^{e,f}				p-value ^b
		Just Eating (%)	Just PA (%)	Both PA and Eating (%)	Not Trying to Lose Weight (%)	
Gender						
Female	162	16	12.3	45.1	26.5	0.805
Male	142	14.8	15.5	46.5	23.2	
Age						
2-5.	25	24	4	36	36	0.146
6-11.	109	16.5	11	52.3	20.2	
12-19.	170	13.5	17.1	42.9	26.5	
Race/Ethnicity^c						
Hispanic	153	18.3	15	46.4	20.3	0.548
Non-Hispanic Black	111	12.6	12.6	45.9	28.8	
Other	40	12.5	12.5	42.5	32.5	
Poverty Category^d						
< or equal to 200%	214	17.8	13.6	43	25.7	0.281
> 200%	90	10	14.4	52.2	23.3	
Immigraton Status of Parent						
Born in the US	205	12.7	15.1	42.2	29.8	0.054
In US for > or equal to 10 yrs	81	22.2	12.3	51.9	13.6	
In US for < 10 yrs	18	16.7	5.6	55.6	22.2	
Adult/Mother's Education Level						
High School or less	193	18.7	13.5	43.5	24.4	0.425
Some College	73	6.8	13.7	52.1	27.4	
College+	38	15.8	15.8	44.7	23.7	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

^c Due to their low number, non-Hispanic whites were combined with the other category

^d Based on 2008 federal poverty level criteria.

^e Categories are mutually exclusive

^f Percentages may not add up to 100 due to rounding

Table 6 shows the bivariate association between OWOB parent-child dyads altering their eating habits to lose weight. In nearly half (47.6%) of the OWOB dyad pairs, both the parent and the child were using eating strategies to lose weight and in 18.2% of the cases neither was using eating strategies to lose weight. In the remaining 34.2% of cases, children were doing the opposite as their parents in terms of using eating

strategies to lose weight. While there was a significant difference ($p < 0.001$) between the parent-child use of eating strategies for weight loss, children had significantly ($p < 0.001$) higher unadjusted odds of using eating strategies to lose weight if their parent were using the same strategies (OR= 3.14, 95% CI: 1.77-5.60).

Table 6

The Association between Perceived OWOB Parent-Child Dyads using Eating Strategies to Lose Weight (n=231)^a

		Is the parent altering their eating habits to lose weight? (%)		<i>p-value</i> ^b
		Yes	No	
Is the child altering their eating habits to lose weight? (%)	Yes	47.6	13	<.001
	No	21.2	18.2	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

Table 7 shows the bivariate association between OWOB parent-child dyads using PA to lose weight. In about 40% of the OWOB dyad pairs, both the parent and the child were using PA to lose weight and in 22% of the cases neither was using PA to lose weight. In the remaining 40.0% of cases, children were doing the opposite as their parents in terms of using eating strategies to lose weight. While there was a significant difference ($p = .005$) between the parent-child use of PA for weight loss, children had significantly ($p = 0.004$) higher unadjusted odds of using PA to lose weight if their parent also uses PA lose weight. (OR= 2.19, 95% CI: 1.28-3.75).

Table 7

The Association between Perceived OWOB Parent-Child Dyads using PA to Lose Weight (n=231)^a

		Is the parent using PA to lose weight? (%)		<i>p-value</i> ^b
		Yes	No	
Is the child using PA to lose weight? (%)	Yes	38.1	23.4	0.005
	No	16.5	22.1	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

Table 8 shows the bivariate association between OWOB parent-child dyads trying to lose weight. In about 58% of the OWOB dyad pairs, both the parent and the child were trying to lose weight and in 12% of the cases neither was trying to lose weight. In the remaining 30.0% of cases, children were doing the opposite as their parents in terms of trying to lose weight. While there was a significant difference ($p < .001$) between the parent-child trying to lose weight, children had significantly ($p < 0.001$) higher unadjusted odds of trying to lose weight if their parent was also trying to lose weight (OR= 3.27, 95% CI: 1.74-6.14).

Table 8

The Association between Perceived OWOB Parent-Child Dyads Trying to Lose Weight (n=231)^a

		Is the parent trying lose weight? (%)		<i>p-value</i> ^b
		Yes	No	
Is the child trying to lose weight? (%)	Yes	58	17.7	<.001
	No	12.1	12.1	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

Table 9 shows the bivariate association between OWOB parent-child dyads altering their eating habits to lose weight by child age. In the sub-sample which contains only 2-11 year old children (n=99), in over half (51.5%) of the OWOB dyad pairs, both the parent and the child were using eating strategies to lose weight and in about 10.0% of the cases neither was using eating strategies to lose weight. In the remaining 38.4% of cases, children were doing the opposite as their parents in terms of using eating strategies to lose weight. While there was not a significant difference ($p=0.467$) between the parent-child use of eating strategies for weight loss, children also had non-significant ($p=0.466$) unadjusted odds of using eating strategies to lose weight if their parent were using the same strategies (OR= 1.41, 95% CI: .56-3.58).

In the sub-sample in Table 9 which contains only 12-19 year old children (n=132), in less than half (44.7%) of the OWOB dyad pairs, both the parent and the child were using eating strategies to lose weight and in about 24.2% of the cases neither was using eating strategies to lose weight. In the remaining 31.0% of cases, children were doing the opposite as their parents in terms of using eating strategies to lose weight. While there was a significant difference ($p<0.001$) between the parent-child use of eating strategies for weight loss, children also had significantly ($p<0.001$) higher unadjusted odds of using eating strategies to lose weight if their parent were using the same strategies (OR= 5.72, 95% CI: 2.54-12.91).

Table 9

The Association between Perceived OWOB Parent-Child Dyads using Eating Strategies to Lose Weight by Child Age (n=231)^a

	Age of child ^c	Is the parent altering their eating habits to lose weight? (%)		<i>p-value</i> ^b
		Yes	No	
Is the child altering their eating habits to lose weight? (%)	2-11 (n=99)	Yes	51.5	19.2
		No	19.2	10.1
	12-19 (n=132)	Yes	44.7	8.3
		No	22.7	24.2
				<.001

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

^c Children aged 2-5 were combined with children aged 6-11 due to the low number of children aged 2-5

Table 10 shows the bivariate association between OWOB parent-child dyads using PA to lose weight by child age. In the sub-sample which contains only 2-11 year old children (n=99), in about 35.4% of the OWOB dyad pairs, both the parent and the child were using PA to lose weight and in about 20.2% of the cases neither was using PA to lose weight. In the remaining 44.5% of cases, children were doing the opposite as their parents in terms of using PA to lose weight. While there was not a significant difference (p=0.406) between the parent-child use of PA for weight loss, children also had non-significant (p=0.312) unadjusted odds of using PA to lose weight if their parent were also using PA to lose weight (OR= 1.53, 95% CI: .67-3.46).

In the sub-sample in Table 10 which contains only 12-19 year old children (n=132), in about 40.0% of the OWOB dyad pairs, both the parent and the child were using PA to lose weight and in 23.5% of the cases neither was using PA to lose weight. In the remaining 36.4% of cases, children were doing the opposite as their parents in terms of using PA to lose weight. While there was a significant difference (p=0.004) between the parent-child use of PA for weight loss, children also had significantly (p=0.004)

higher unadjusted odds of using PA to lose weight if their parent were using PA to lose weight (OR= 2.90, 95% CI: 1.41-5.97).

Table 10

The Association between Perceived OWOB Parent-Child Dyads using PA to Lose Weight by Child Age (n=231)^a

	Age of child ^c		Is the parent using PA to lose weight? (%)		p-value ^b
			Yes	No	
Is the child using PA to lose weight? (%)	2-11 (n=99)	Yes	35.4	27.3	0.406
		No	17.2	20.2	
	12-19 (n=132)	Yes	40.2	20.5	0.004
		No	15.9	23.5	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

^c Children aged 2-5 were combined with children aged 6-11 due to the low number of children aged 2-5

Table 11 shows the bivariate association between OWOB parent-child dyads trying to lose weight by child age. In the sub-sample which contains only 2-11 year old children (n=99), in nearly 60.0% of the OWOB dyad pairs, both the parent and the child were trying to lose weight and in about 8.1% of the cases neither was trying to lose weight. In the remaining 32.3% of cases, children were doing the opposite as their parents in terms of trying to lose weight. While there was not a significant difference (p=0.266) between trying to lose weight for the parent-child dyad, children also had non-significant (p=0.197) unadjusted odds of trying to lose weight if their parent were also trying to lose weight (OR= 1.97, 95% CI: .70-5.50).

In the sub-sample in Table 11 which contains only 12-19 year old children (n=132), in about 56.8% of the OWOB dyad pairs, both the parent and the child were trying to lose weight and in 15.2% of the cases neither was trying to lose weight. In the remaining 28.0% of cases, children were doing the opposite as their parents in terms of

trying to lose weight. While there was a significant difference ($p < 0.001$) between trying to lose weight for the parent-child dyad, children also had significantly ($p < 0.001$) higher unadjusted odds trying to lose weight if their parent were also trying to lose weight (OR= 4.46, 95% CI: 1.97-10.10).

Table 11

The Association between Perceived OWOB Parent-Child Dyads Trying to Lose Weight by Child Age (n=231)^a

	Age of child ^c	Is the parent trying lose weight? (%)		p-value ^b
		Yes	No	
Is the child trying to lose weight? (%)	2-11 (n=99)	Yes	59.6	20.2
		No	12.1	8.1
	12-19 (n=132)	Yes	56.8	15.9
		No	12.1	15.2

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

^c Children aged 2-5 were combined with children aged 6-11 due to the low number of children aged 2-5

Table 12 shows the bivariate association between OWOB parent-child dyads altering their eating habits to lose weight by child gender. In the sub-sample which contains only female children (n=124), in less than half (46.0%) of the OWOB dyad pairs, both the parent and the child were using eating strategies to lose weight and in about 17.7% of the cases neither was using eating strategies to lose weight. In the remaining 36.3% of cases, children were doing the opposite as their parents in terms of using eating strategies to lose weight. While there was a significant difference ($p = 0.018$) between the parent-child use of eating strategies for weight loss, children also had significantly ($p = 0.015$) higher unadjusted odds of using eating strategies to lose weight if their parent were using the same strategies (OR= 2.63, 95% CI: 1.21-5.74).

In the sub-sample in Table 12 which contains only male children (n=107), nearly half (49.5%) of the OWOB dyad pairs, both the parent and the child were using eating strategies to lose weight and in about 18.7% of the cases neither was using eating strategies to lose weight. In the remaining 31.7% of cases, children were doing the opposite as their parents in terms of using eating strategies to lose weight. While there was a significant difference (p=0.002) between the parent-child use of eating strategies for weight loss, children also had significantly (p=0.002) higher unadjusted odds of using eating strategies to lose weight if their parent were using the same strategies (OR= 3.88, 95% CI: 1.64-9.19).

Table 12

The Association between Perceived OWOB Parent-Child Dyads using Eating Strategies to Lose Weight by Child Gender (n=231)^a

	Child's Gender	Is the parent altering their eating habits to lose weight? (%)		p-value ^b
		Yes	No	
Is the child altering their eating habits to lose weight? (%)	Female (n=124)	Yes	46	0.018
		No	22.6	
	Male (n=107)	Yes	49.5	0.002
		No	19.6	

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

Table 13 shows the bivariate association between OWOB parent-child dyads using PA to lose weight by child gender. In the sub-sample which contains only female children (n=124), in 38.7% of the OWOB dyad pairs, both the parent and the child were using PA to lose weight and in about 24.2% of the cases neither was using PA to lose weight. In the remaining 37.1% of cases, children were doing the opposite as their parents in terms of using PA to lose weight. While there was a significant difference

($p=0.01$) between the parent-child use of PA for weight loss, children also had significantly ($p=0.008$) higher unadjusted odds of using PA to lose weight if their parent were also using PA to lose weight (OR= 2.72, 95% CI: 1.35-5.70).

In the sub-sample in Table 13 which contains only male children ($n=107$), about 37.4% of the OWOB dyad pairs, both the parent and the child were using PA to lose weight and in about 19.6% of the cases neither was using PA to lose weight. In the remaining 43.0% of cases, children were doing the opposite as their parents in terms of using PA to lose weight. While there was not a significant difference ($p=0.223$) between the parent-child use of PA for weight loss, children also had non-significant ($p=0.173$) unadjusted odds of using PA to lose weight if their parent were also using PA to lose weight (OR= 1.75, 95% CI: .78-3.91).

Table 13

The Association between Perceived OWOB Parent-Child Dyads using PA to Lose Weight by Child Gender (n=231)^a

	Child's Gender	Is the parent using PA to lose weight? (%)		<i>p-value</i> ^b
		Yes	No	
Is the child using PA to lose weight? (%)	Female (n=124)	Yes	38.7	19.4
		No	17.7	24.2
	Male (n=107)	Yes	37.4	28
		No	15	19.6

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

Table 14 shows the bivariate association between OWOB parent-child dyads trying to lose weight by child gender. In the sub-sample which contains only female children ($n=124$), in about 56.5% of the OWOB dyad pairs, both the parent and the child were trying to lose weight and in about 12.9% of the cases neither was trying to lose

weight. In the remaining 30.6% of cases, children were doing the opposite as their parents in terms of trying to lose weight. While there was a significant difference ($p=0.008$) between trying to lose weight for the parent-child dyad, children also had significantly ($p=0.007$) higher unadjusted odds trying to lose weight if their parent were also trying to lose weight (OR= 3.18, 95% CI: 1.30-8.71).

In the sub-sample in Table 14 which contains only male children ($n=107$), in about 59.8% of the OWOB dyad pairs, both the parent and the child were trying to lose weight and in 11.2% of the cases neither was trying to lose weight. In the remaining 29.0% of cases, children were doing the opposite as their parents in terms of trying to lose weight. While there was a significant difference ($p=0.02$) between trying to lose weight for the parent-child dyad, children also had significantly ($p=0.012$) higher unadjusted odds trying to lose weight if their parent were also trying to lose weight (OR= 3.37, 95% CI: 1.30-8.71).

Table 14

The Association between Perceived OWOB Parent-Child Dyads Trying to Lose Weight by Child Gender ($n=231$)^a

	Child's Gender	Is the parent trying lose weight? (%)		<i>p-value</i> ^b
		Yes	No	
Is the child trying to lose weight? (%)	Female (n=124)	Yes	56.5	17.7
		No	12.9	12.9
	Male (n=107)	Yes	59.8	17.8
		No	11.2	11.2

^a Statistical analysis performed using chi-square test for independence crosstabulation tables

^b Significance was determined at the 0.05 level (2-tailed)

Multivariate Analysis

Separate multivariate models were run to examine the association of the four different non-mutually exclusive weight loss strategy options (eating, PA, both eating and PA, and not trying to lose weight) with a variety of demographic variables.

Table 15 presents the results of multivariate regression to test the association between the various demographic variables as used in the bivariate analysis and weight loss strategies for adults who perceive themselves to be OWOB.

Regarding the use of eating strategies to lose weight, those in the > 200% poverty category had significantly higher odds ($p=0.02$) of using eating to lose weight as compared to those in the $\leq 200\%$ poverty category (OR= 1.467, 95% CI: 1.061-2.027). Those with at least a four-year college degree had significantly higher odds ($p=0.043$) of using eating to lose weight as compared to those adults who at most completed high school (OR= 1.515, 95% CI: 1.013-2.267). There was no significant relation between gender, age, race/ethnicity, and immigration status on using eating strategies as a method of weight loss.

Regarding the use of PA to lose weight, males had significantly higher odds ($p=0.003$) of using PA to lose weight when compared to females (OR= 1.706, 95% CI: 1.209-2.560). The participants in the > 200% poverty category also had significantly higher odds ($p=0.02$) of using PA to lose weight when compared to those in the $\leq 200\%$ poverty category (OR= 1.453, 95% CI: 1.062-1.990). There was no significant relation between age, race/ethnicity, immigration status, and education level on using PA as a method of weight loss.

Regarding the use of both eating and PA to lose weight, males had significantly higher odds ($p=0.009$) of using both eating and PA to lose weight compared to females (OR= 1.628, 95% CI: 1.128-2.349). The participants in the $> 200\%$ poverty category also had significantly higher odds ($p=0.022$) of using both eating and PA to lose weight when compared to those in the $\leq 200\%$ poverty category (OR= 1.439, 95% CI: 1.054-1.965). Those with the highest level of education also had significantly higher odds ($p=0.049$) of using both eating and PA to lose weight as compared to those adults who at most completed high school (OR= 1.470, 95% CI: 1.002-2.155). There was no significant relation between age, race/ethnicity, and immigration status, on using both eating strategies and PA as a method of weight loss.

Regarding not trying to lose weight, only those in the $> 200\%$ poverty category had significantly lower odds ($p=0.016$) of not trying to lose weight as compared to those in the $\leq 200\%$ poverty category (OR= .665, 95% CI: .477-.927). There was no significant relation between gender, age, race/ethnicity, immigration status, and education level on not trying to lose weight.

Table 15

Logistic Regression Analysis of the Association between Adult-Level Characteristics and Type of Weight Loss Strategy of Adults Who Perceive Themselves to be OWOB (n = 1032)^{a,d}

Explanatory Variables	n	Using Eating to Lose Weight Adjusted OR (95% CI)	p-value	Using PA to Lose Weight Adjusted OR (95% CI)	p-value	Using Both Eating and PA to Lose Weight Adjusted OR (95% CI)	p-value	Not Trying to Lose Weight Adjusted OR (95% CI)	p-value
Gender									
Female (Ref)	881								
Male	151	1.30 (.89-1.90)	0.175	1.76 (1.21-2.56)	0.003	1.63 (1.13-2.35)	0.009	.70 (.47-1.04)	0.079
Age									
18-34 (Ref)	308								
35-49	511	1.08 (.80-1.46)	0.632	1.29 (.96-1.74)	0.092	1.12 (.84-1.51)	0.443	.80 (.59-1.08)	0.148
50+	213	.87 (.60-1.26)	0.457	.90 (.62-1.29)	0.563	.86 (.59-1.23)	0.402	1.10 (.76-1.60)	0.622
Race/Ethnicity^b									
Hispanic (Ref)	410								
Non-Hispanic Black	450	.71 (.47-1.08)	0.108	.82 (.55-1.22)	0.33	.80 (.53-1.19)	0.264	1.38 (.90-2.10)	0.139
Other	172	.94 (.67-1.31)	0.695	1.26 (.91-1.75)	0.161	1.36 (.98-1.88)	0.066	1.16 (.83-1.64)	0.385
Poverty Category^c									
< or equal to 200% (Ref)	682								
> 200%	350	1.47 (1.06-2.03)	0.02	1.45 (1.06-1.99)	0.02	1.44 (1.05-1.97)	0.022	.67 (.48-.93)	0.016
Immigration Status									
Born in the US (Ref)	766								
In US for > or equal to 10 yrs	209	1.16 (.80-1.69)	0.423	.93 (.65-1.33)	0.688	1.09 (.76-1.57)	0.625	1.03 (.70-1.50)	0.899
In US for < 10 yrs	57	.83 (.46-1.50)	0.541	.77 (.43-1.39)	0.391	.89 (.49-1.59)	0.684	1.40 (.77-2.53)	0.27
Adult/Mother's Education Level									
High School or less (Ref)	575								
Some College	271	1.11 (.81-1.52)	0.51	1.16 (.85-1.59)	0.336	1.29 (.95-1.76)	0.103	1.00 (.73-1.38)	0.984
College+	186	1.52 (1.01-2.27)	0.043	1.37 (.93-2.02)	0.108	1.47 (1.00-2.15)	0.049	.70 (.46-1.06)	0.091

^a Significance was determined at the 0.05 level (2-tailed)

^b Due to their low number, non-Hispanic whites were combined with the Other category

^c Based on 2008 federal poverty level criteria

^d Weight loss categories are not mutually exclusive

Ref = Referent category

Table 16 present results from a multivariate regression testing the association between various demographic variables as used in the bivariate analysis and weight loss strategies for children whose parents who perceive them to be OWOB.

Regarding the use of eating strategies to lose weight, parents who were foreign born and had lived in the US for ≥ 10 years had children with significantly higher odds ($p=.005$) of using eating to lose weight (OR= 2.561, 95% CI: 1.332-4.925) when compared to the children of those parents who were born in the US. There was no significant relation between gender, age, race/ethnicity, poverty category, and education level using on eating strategies to lose weight.

Regarding the use of PA to lose weight, children aged 6-11 had significantly higher odds ($p=.033$) of using PA to lose weight when compared to children aged 2-5 years (OR= 2.679, 95% CI: 1.083-6.626). Children aged 12-19 also had significantly higher odds of using PA to lose weight as compared to the youngest children (OR= 2.406, 95% CI: 1.004-5.765) albeit to a slightly lesser extent than the 6-11 year age groups. Children older than 5 years had significantly higher odds of using PA to lose weight when compared to children aged 2-5 years. There was no significant relation between gender, race/ethnicity, poverty category, immigration status, and education level on using PA to lose weight.

Regarding the use of both eating strategies and PA to lose weight no significant values were observed for any demographic variables.

Regarding not trying to lose weight, parents who were foreign born and had lived in the US for ≥ 10 years had children with significantly lower odds ($p=0.019$) of not

trying to lose weight (OR= .390, 95% CI: .177-.857) when compared to the children of those parents who were born in the US. There was no significant relation between gender, age, race/ethnicity, poverty category, and education level on using eating strategies to lose weight.

Table 16

Logistic Regression Analysis of the Association between Child/Parent-Level Characteristics and Type of Weight Loss Strategy of Children Whose Parents Perceive Them to be OWOB (n = 304)^{a,d}

Explanatory Variables	n	Using Eating to Lose Weight		Using PA to Lose Weight		Using Both Eating and PA to Lose Weight		Not Trying to Lose Weight	
		Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value
Gender									
Female (Ref)	162								
Male	142	.90 (.55-1.46)	0.66	1.18 (.73-1.90)	0.51	.97 (.60-1.55)	0.882	.90 (.51-1.54)	0.674
Age									
2-5 (Ref)	25								
6-11.	109	1.54 (.61-3.87)	0.357	2.68 (1.08-6.63)	0.033	2.02 (.81-5.06)	0.132	.42 (.16-1.11)	0.08
12-19.	170	.92 (.38-2.21)	0.844	2.41 (1.00-5.77)	0.049	1.39 (.57-3.39)	0.466	.57 (.23-1.43)	0.231
Race/Ethnicity^b									
Hispanic (Ref)	153								
Non-Hispanic Black	111	.91 (.42-1.97)	0.804	.64 (.29-1.38)	0.249	.90 (.42-1.94)	0.786	1.72 (.74-4.02)	0.207
Other	40	1.20 (.67-2.15)	0.542	.97 (.54-1.74)	0.907	1.26 (.70-2.25)	0.442	1.11 (.58-2.13)	0.752
Poverty Category^c									
< or equal to 200% (Ref)	214								
> 200%	90	1.20 (.66-2.17)	0.552	1.58 (.87-2.87)	0.132	1.55 (.87-2.74)	0.137	.80 (.41-1.57)	0.516
Immigration Status of Parent									
Born in the US (Ref)	205								
In US for > or equal to 10 yrs	81	2.56 (1.33-4.93)	0.005	1.39 (.74-2.60)	0.309	1.75 (.95-3.24)	0.075	.39 (.18-.86)	0.019
In Us for < 10 yrs	18	2.33 (.75-7.27)	0.144	1.29 (.45-3.75)	0.638	2.23 (.78-6.38)	0.134	.74 (.22-2.52)	0.626
Adult/Mother's Education Level									
High School or less (Ref)	193								
Some College	73	1.02 (.55-1.87)	0.956	1.43 (.78-2.65)	0.251	1.43 (.79-2.58)	0.243	.99 (.50-1.94)	0.972
College+	38	1.14 (.51-2.57)	0.745	1.06 (.47-2.38)	0.888	1.01 (.45-2.23)	0.991	.79 (.32-1.97)	0.613

^a Significance was determined at the 0.05 level (2-tailed)

^b Due to their low number, non-Hispanic whites were combined with the Other category

^c Based on 2008 federal poverty level criteria

^d Weight loss categories are not mutually exclusive

Ref = Referent category

Chapter 5

DISCUSSION

The purpose of this study was to examine various weight loss strategies (altering eating habits, PA, or both) in relation to various adult and child-level demographic characteristics as well as to determine if parent-child OWOB dyads used similar weight loss strategies.

Similar to the current study, previous studies had shown that altering eating habits were the more popular weight loss choice for adults as compared to PA (Kruger et al., 2004; Kruger, Blanck, & Gillespie, 2006; Weiss et al., 2006; Bish et al., 2007). In the current study, gender, age, race, poverty level, and education level were all found to be significant predictors of the type of weight loss strategy in OWOB adults; however, in the multivariate analysis only gender, poverty level, and education remained significant. Males had higher odds of using PA and both eating and PA when compared to females. Higher income adults had higher odds of performing all weight loss strategies when compared to lower income adults. Adults who had at least completed college had higher odds of using eating and both eating and PA when compared to those who had at most completed high school.

Previous studies were more inconsistent concerning the most popular weight loss choice for children (Felts et al., 1996; Middleman, Vazquez, & Durant 1998; Boutelle et al., 2001; Alm et al., 2009); however this may be because PA to lose weight was gaining popularity amongst youth (Lowry et al., 2005). The current study found no significant difference between using eating and PA to lose weight for OWOB children as stated by

their parents. Also in the current study, no demographic characteristics were found to be significant predictors of the type of weight loss strategy in OWOB children; however, in the multivariate analysis age and immigration status of the parent were found to be significant. The lack of significant predictors in the bivariate analysis may be due to the relatively small sample size of OWOB children (n=304) as compared to the OWOB adult sample (n=1032). In the multivariate analysis, older children (6-11 and 12-19 years) had higher odds of using PA when compared to younger children (2-5 years). Foreign-born parents who had lived in the US > 10 years had children who had higher odds of using eating to lose weight when compared to the children of parents who had been born in the US. It is prudent to note that the cell size for children aged 2-5 was fairly small. The cell size for foreign-born parents who had lived in the US for < 10 years was also relatively small.

No previous studies had examined the overlap between weight loss strategies adopted by OWOB parent-child dyads. Previous studies had shown that parents play a significantly large role in their child's diet (Oliveria et al., 1992; Brown & Ogden 2003; Jago et al, 2011; Patrick & Nicklas, 2013) and PA levels (Moore et al, 1991; Fuemmeler, Anderson & Masse, 2011). The current study found a significant overlap between weight loss strategies adopted by OWOB parent-child dyads. This relationship was only significant for the older children and not for the younger children. This relationship was also significantly true for both boys and girls; however, there was a lack of significance between OWOB parent- male child PA levels.

Further discussion of the results is organized by hypotheses proposed for this study.

Hypothesis 1.1: Overall OWOB adults are more likely to adopt eating strategies to lose weight.

The present study found that altering eating habits is the more popular reported weight loss strategy when compared to PA for OWOB adults. In the related previous research examined, all studies found that altering eating habits was the most popular weight loss strategy choice when compared to PA for adults. Altering eating habits can include many specific sub strategies such as purposely decreasing calorie intake, increasing fruit and vegetable intake, and/or cutting down on specific foods. In all studies that included specific types of sub strategies, decreasing calorie intake was the most popular choice of weight loss (Kruger et al., 2004; Kruger, Blanck, & Gillespie, 2006; Weiss et al., 2006; Bish et al., 2007).

Serdula et al. (1999) reported that amongst their sample, 90% of adults reported altering their diet to lose weight. Less than two-thirds reported using PA and even less reported altering their eating habits and using PA to lose weight. Kruger et al. (2004) also reported that both men and women were more likely to alter their eating habits to lose weight. Only one-third of those in Kruger et al.'s (2004) sample reported eating less calories and using PA to lose weight. Similar results and trends were also observed for many other studies (Kruger, Blanck, & Gillespie 2006; Weiss et al., 2006; Bish et al., 2007). The present study also reveals that the differences between using eating vs PA to lose weight was significant for adults.

Zhao et al.'s (2009) study had perhaps the closest results to the present study in terms of using both eating and PA to lose weight. In Zhao et al.'s (2009) study, 63.5% of the sample used dieting and PA to lose weight, 21.0% only used dieting, while 10.9% only used PA. The results in the present study are fairly similar to these results. In Zhao et al.'s (2009) study and the present study, there were a relatively large percentage of people using both eating and PA to lose weight; however, the previously mentioned studies by Serdula et al. (1999), Kruger et al. (2004), Kruger, Blanck, & Gillespie (2006), Weiss et al. (2006), and Bish et al., (2007) had fairly low rates of people using dieting and PA to lose weight. This could perhaps be explained because the studies with low rates of people using both eating and PA to lose weight had more specific criteria as to what constitutes the category of PA; therefore, lowering the number of people in the PA category. These studies had more than one question regarding PA that included the duration and intensity of PA. In Zhao et al.'s (2009) study and the present study, the question regarding PA was simply one question answered with a yes or no: "Are you using PA to lose weight?" These differences can also be related to the demographic differences in the studies. Even so, the present study is consistent with all studies examined in that altering eating habits is the more popular reported weight loss strategy when compared to PA for adults looking to lose weight.

Hypothesis 1.2: The choice of weight loss strategies (in adults) will vary by parent age, gender, income, race/ethnicity, and education level.

In the present study, gender, age, race, poverty level, and education level were all found to be significant predictors of the type of weight loss strategy in OWOB adults;

however, in the multivariate analysis only gender, poverty level, and education remained significant. Males had higher odds of using PA and both eating and PA when compared to females. Higher income adults had higher odds of performing all weight loss strategies when compared to lower income adults. Adults who had at least completed college had higher odds of using eating and both eating and PA when compared to those who had at most completed high school.

In the bivariate analysis, differences were observed in the prevalence of attempt to lose weight by age categories. However, this difference did not hold up in multivariate analysis. Previous studies had shown that prevalence of attempting to lose weight is higher among younger adults (Zhao et al., 2009; Julia et al., 2014; Weiss et al., 2006), and goes down with age (Zhao et al., 2009; Weiss et al., 2006), but the association is not consistent for males and females (Weiss et al., 2006).

Men were more likely to attempt to lose weight as compared to women in the bivariate analysis for the present study; however, this association was non-significant in the multivariate analysis. Regarding gender, all relevant studies examined stated that women are more likely than men to attempt to lose weight (Serdula et al., 1999; Kruger et al. 2004; Weiss et al., 2006; Bish et al., 2007; Zhao et al., 2009; Julia et al., 2014). The difference between male and female dieting habits can perhaps be explained by the double standards regarding media portrayal of the ideal body and familial and peer pressure to be thin which is primarily directed towards women (Julia et al., 2014). In the same aforementioned studies, women were more likely than men to alter their eating habits to lose weight while men were more likely to use PA to lose weight (Serdula et al.,

1999; Kruger et al. 2004; Weiss et al., 2006; Bish et al., 2007; Zhao et al., 2009; Julia et al., 2014). These differences may or may not be significant; however, percentage-wise women always had higher prevalence of altering their diet as compared to men while men always had higher prevalence of using PA as compared to women. In the bivariate analysis, women were more likely to use just dieting to lose weight while men were more likely to use just PA to lose weight. In the multivariate analysis, only men had significantly higher odds of using PA to lose weight– women did not have significantly higher odds of using dieting to lose weight. In addition to this, men also had significantly higher odds of using both dieting and PA to lose weight.

In the bivariate analysis of the present study the non-Hispanic black sample had the lowest prevalence of attempting to lose weight. In the multivariate analysis, there was not a significant association between the trying to lose weight and race/ethnicity. Previous studies had shown that, non-Hispanic blacks were less likely than Hispanics to attempt to lose weight and that non-Hispanic black women had lower odds of trying to lose weight when compared to Hispanic women; however, the odds of trying to lose weight did not vary significantly by race amongst men (Zhao et al., 2009; Weiss et al., 2006).

Regarding education, those with a higher education are more likely to attempt to lose weight (Kruger et al., 2004; Zhao et al., 2009). The results of the present study are consistent with these previous studies. In the bivariate analysis of the present study, a higher education increased the prevalence of trying to lose weight. Similarly a higher education increased the prevalence of altering eating habits and using PA to lose weight.

The multivariate analysis revealed that those who had at least a college degree had significantly higher odds of altering their eating habits to lose weight as compared to those who at least completed high school. Those who had at least a college degree also had significantly higher odds of using both eating and PA to lose weight. Education level seems to be strongly related to the choices people make and women of higher educational groups are more likely to exhibiting healthy eating habits and to exercise (Lamerz et al., 2005).

No other studies in the literature had examined the role of income and immigration status in choice of weight loss strategies adopted by OWOB adults. In the current study, those with higher income had greater odds of altering their eating habits, using PA, and trying to lose weight when compared to those of lower income. There was no relation between immigration status and type of weight loss strategy.

Hypothesis 2.1: Overall OWOB children are more likely to adopt eating strategies to lose weight.

The present study showed that there was no significant difference in choosing eating or PA to lose weight amongst children aged 2-19 years. In the related previous research examined, many studies revealed that dieting and using PA to lose weight for adolescents had fairly similar prevalence with the prevalence of PA occasionally surpassing the prevalence of dieting (Felts et al., 1996; Middleman, Vazquez, & Durant 1998; Boutelle et al., 2001; Alm et al., 2009). The prevalence of using PA to lose weight is on the rise amongst adolescents (Lowry et al., 2005). Altering eating habits in these studies can include many specific sub strategies such as purposely decreasing calorie

intake, increasing fruit and vegetable intake, and/or cutting down on specific foods. Using PA to lose weight typically also includes vigorous PA as a sub section. The previous studies as aforementioned only included adolescents in their study sample and only one included children as young as 8 years (Maloney et al., 1989). The present study includes children as young as 2 years old to adolescents aged 19 years.

Similar to previous studies, analysis concluded that there was no significant difference in choosing eating or PA to lose weight amongst children aged 2-19 years. This lack of significance is not surprising since the use of PA to lose weight is increasing amongst youth (Lowry et al., 2005).

Hypothesis 2.2: The choice of weight loss strategies (for children) will vary by child age, gender, and race/ethnicity, and parent's income and education level.

No demographic characteristics were found to be significant predictors of the type of weight loss strategy in OWOB children in the present study; however, in the multivariate analysis age and immigration status of the parent were found to be significant. Older children (6-11 and 12-19 years) had higher odds of using PA when compared to younger children (2-5 years). Foreign-born parents who had lived in the US > 10 years had children who had higher odds of using eating to lose weight when compared to the children of parents who had been born in the US.

The present study included the age categories 2-5 years, 6-11 years, and 12-19 years and found that 6-19 year-olds are more likely to be using PA to lose weight as compared to 2-5 year olds. In the previous studies examined, only one by Maloney et al (1989) stratified the children by age in relation to different weight loss strategies. Other

studies only studied adolescents and did not separate their participants by age in relation to the weight loss strategies (Felts et al., 1996; Middleman, Vazquez, & Durant 1998; Boutelle et al., 2001; Alm et al., 2009). In the bivariate analysis of the present study, 2-5 year old children are the least likely to be trying to lose weight. Children aged 6-11 years are the most likely to be trying to lose weight. Using just PA to lose weight increases by age while just altering eating habits to lose weight decreases by age. In the multivariate analysis, the only significant values were observed for using PA to lose weight. Both 6-11 and 12-19 year olds had higher odds of using PA to lose weight when compared to 2-5 year olds. This may be because it is more difficult to control and monitor the PA levels of younger children as compared to older children. It may be more prudent and simpler for the parent to alter their younger children's eating habits rather than their PA level (Centers for Disease Control and Prevention, 2011).

In the present study, no differences were observed for both males and females in relation to any weight loss strategy in both the bivariate and multivariate analyses. According to previous studies examined, more females than males were trying to lose weight. The prevalence of dieting was higher amongst girls while the prevalence of using PA to lose weight was higher amongst boys; however, less OWOB girls compared to OWOB boys used vigorous PA to lose weight (Felts et al., 1996; Middleman, Vazquez, & Durant 1998; Boutelle et al., 2001; Lowry et al., 2005). This may be attributed to demographic differences between the present study and previous studies; however, this may also be due to previous studies including vigorous PA along with simple PA as an outcome variable.

With regard to race/ethnicity, the bivariate study for the present analysis reveal that non-Hispanic black are more likely than Hispanic children to be not trying to lose weight. Non-Hispanic blacks are less likely than Hispanics to try just eating to lose weight. Despite these results from the bivariate analysis, no significant odds were observed for types of weight loss strategies or attempting to lose weight in terms of ethnicity in the multivariate analysis. Previous studies show that non-Hispanic blacks are the most likely group to not be trying to lose weight with Hispanics sometimes following closely behind or trailing behind (Felts et al., 1996; Middleman, Vazquez, & Durant 1998; Lowry et al., 2005). Overall, non-Hispanic black adolescents are the least likely ethnicity to attempt to lose weight. The ethnicity group most likely to exercise was the non-Hispanic white adolescents, followed by Hispanics, and then non-Hispanic blacks (Lowry et al., 2005) while Hispanic adolescents were the most likely to alter their eating habits to lose weight (Felts et al., 1996). Adding gender into the equation may change these trends. The present study had the highest prevalence of Hispanics and non-Hispanic blacks and a significantly lower number of non-Hispanic whites when compared to the previous studies.

No other studies in the literature had examined the role of income and immigration status of the parent in choice of weight loss strategies adopted by OWOB children. In the current study, there was no relation between parental income and parental education and type of weight loss strategy. Those children with foreign-born parents who had lived in the US for ≥ 10 years are more likely to alter their eating habits and to try to lose weight when compared to those children with parents born in the US.

Hypothesis 3.1: Overall, OWOB children are more likely to use weight loss strategies similar to the ones used by their OWOB parents.

The present study found that OWOB children are indeed more likely to use weight loss strategies similar to the ones used by their OWOB parents for both PA and eating. It is a well-known fact that parents are one of the largest influencers of their child's behavior (Moore et al., 1991; Oliveria et al., 1992; Brown & Ogden, 2003; Fuemmeler, Anderson & Masse, 2011).

In a study by Moore et al. (1991), active mothers were two times more likely to have children that are physically active compared to the children of inactive mothers. Similar to Moore et al.'s (1991) study, children in the present study also had two times higher odds of using PA to lose weight if the parent also uses PA to lose weight. Despite the fact that Moore et al.'s (1991) study was only comprised of non-Hispanic white and middle-class families, the results of the present study which contained primarily minority and low income families, the odds of performing PA in both studies was the same.

Parents also play a large role in the nutrient intake of their children. Diet is especially strongly related between mothers and their children (Oliveria et al., 1992; Patrick & Nicklas, 2013). Regarding eating habits, children in the present study had three times higher odds of using eating to lose weight if their parent was also implementing this same weight loss strategy. For the OWOB parent-child dyads, children in general had three times greater odds of trying to lose weight if the parent is also trying to lose weight.

Hypothesis 3.2: Younger OWOB children are more likely to adopt strategies that their OWOB parents use than older OWOB children

The purpose of this hypothesis was to determine whether OWOB younger children are more likely to mimic their OWOB parent's weight loss habits as compared to OWOB older children. The current study found weight loss strategies adopted by parents only affect the weight loss strategies adopted by older children (12-19) rather than younger children (2-11). No known studies had also included the age group of 2-5 year olds in their weight loss observations. Previous studies had shown that children start to mimic their mother's eating habits at a very young age (Oliveria et al, 1992; Patrick & Nicklas, 2013) and that the PA of children could be linked to the PA levels of parents (Moore et al, 1991; Fuemmeler, Anderson & Masse, 2011).

In the present study there was a small sample of 2-5 year olds in the OWOB parent-child dyads; therefore, 2-5 year old children were combined with 6-11 year old children for statistical analysis. In the bivariate analysis in the present study, the younger children (2-11 years) had no significant higher odds to practicing any specific weight loss strategy if their parent also applies that strategy. This trend was not observed for the older children (12-19 years). The analysis revealed that the older children had six times higher odds of altering their eating habits to lose weight if their parent also alters their eating habits to lose weight, three times higher odds of using PA to lose weight if their parent also uses PA to lose weight, and 4.5 times higher odds of trying to lose weight if their parent is also trying to lose weight.

Hypothesis 3.3: OWOB girls at all ages are more likely to adopt strategies that their OWOB parents use compared to OWOB boys

The purpose of this hypothesis was to determine whether OWOB female children are more likely to mimic their OWOB parent's weight loss habits as compared to OWOB male children. Boys and girls adopt the same weight loss strategies as their parents; however, mothers utilizing PA to lose weight was not correlated to the likelihood of boys using PA to lose weight.

The present study showed that females had 2.6 times higher odds of altering their eating habits to lose weight if their parent also alters their eating habits to lose weight. Male children had a four times higher odds of altering their eating habits to lose weight if their parent also alters their eating habits to lose weight. Female children had a three times higher odds of using PA to lose weight if their parent also uses PA to lose weight. Unlike female children, there is no association between using PA to lose weight for male children and parent dyads. This lack of correlation in PA between male children and their parents may be due to the lack of father respondents in this study sample. Previous studies had shown that the PA levels of fathers are correlated with the PA levels of mothers (Cutting et al., 1999; Jago et al., 2011; Fuemmeler, Anderson & Masse, 2011). Female children had a 3.2 times higher odds of trying to lose weight if their parent is also trying to lose weight while male children had a 3.4 times higher odds of trying to lose weight if their parent is also trying to lose weight.

Limitations and Strengths

Limitations of this study include its cross-sectional design. We cannot determine whether a parents' decision to lose weight using eating habits or PA caused their child to also make these decisions. We also cannot determine whether being a part of a certain demographic caused the OWOB adult or child to make certain decisions about their weight loss choices. Another limitation is that the data were self-reported. This could lead to incorrect or slightly exaggerated data from false perception. PA and eating habits were the only two variables considered for weight loss, but there are also other methods that were not considered including medication and surgery. Participants in this study were mainly non-Hispanic black and Hispanic from low SES families and therefore the results of the study can only be generalized to similar populations.

Strengths of this study include its inclusion of children as young as 2 years old. Younger children are relatively rarely included in studies regarding weight loss when compared to older children.

Conclusion

This study examined the prevalence of altering eating habits and/or using PA to lose weight in relation to various adult and child-level demographic characteristics. The results from this study showed that adults are more likely to use eating rather than PA to lose weight. Gender, age, race, poverty level, and education level were all found to be significant predictors of the type of weight loss strategy in OWOB adults; however, in the multivariate analysis only gender, poverty level, and education remained significant. Males had higher odds of using PA and both eating and PA when compared to females.

Higher income adults had higher odds of performing all weight loss strategies when compared to lower income adults. Adults who had at least completed college had higher odds of using eating and both eating and PA when compared to those who had at most completed high school.

The present study found no significant difference between using eating and PA to lose weight for OWOB children as stated by their parents. No demographic characteristics were found to be significant predictors of the type of weight loss strategy in OWOB children; however, in the multivariate analysis age and immigration status of the parent were found to be significant; however, it is important to note that the sample size for these subgroups was rather small. Older children (6-11 and 12-19 years) had higher odds of using PA when compared to younger children (2-5 years). Foreign-born parents who had lived in the US > 10 years had children who had higher odds of using eating to lose weight when compared to the children of parents who had been born in the US. This study also determined that there was a significant overlap between weight loss strategies adopted by OWOB parent-child dyads. In subgroup analysis, parent-child dyads had higher odds of adopting similar strategies among older children (12-19) and among girls, but this association did not hold true for younger children (2-11 years) and among boys for PA.

In the low-income and minority population in New Jersey, parental weight loss strategies are often reflected onto the child. Older OWOB children (12-19) and female children had higher odds of adopting their parents' weight loss strategies. Younger children did not follow the same pattern as their parents and among boys concordance

was observed only for eating strategies. Additional research is needed to determine and how this might affect family-based weight management interventions.

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APPENDIX A

NJCOB CHILDHOOD OBESITY QUESTIONNAIRE

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. **(IF SC1a=1 OR SC1baa=1:)** 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.

(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.) (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

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

(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

(Programmer: If SC2a1=2 TERMINATE (“S/O SC2a1 – Not in 1 of 5 cities). If SC2a1=3 or 4, 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.”)**(IF SC2ca=2 through 10, read:)** How many of them are related to you by blood, 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.”) **(IF SC2cb=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 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
62 or older?
9 =
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.)

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)

(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. B6B12a 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

R E A D S L O W L Y: 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 of 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 = BONSALL
- 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 FACIL
- 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 OFFI

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 CE
- 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 (*NDEX 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?

(INTERVIEWER: ALWAYS PROBE WITH: "Is that for the whole weekend, or just 1 day out 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? (FHIS 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?

(IF NEEDED: “WIC=Special Supplemental Nutrition Program for Woman, Infants and 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: 1-877222-3737; 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)

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL FORM



APPROVAL: MODIFICATION

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

Dear Punam Ohri-Vachaspati:

On 8/31/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Modification
Title:	Impact of Environmental Changes on Children's BMI and Behaviors: A Panel Study
Investigator:	Punam Ohri-Vachaspati
IRB ID:	1107006669
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"> • NJCHS Panel 2.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • phone survey panel 1 time 2, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Rutgers IRB approval amend 9-22-14, 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); • Parent measurement reminder letter, Category: Recruitment materials/advertisements /verbal scripts/phone scripts; • Parent measurement invitation letter, Category: Recruitment materials/advertisements /verbal scripts/phone scripts;

	<ul style="list-style-type: none"> • Rutgers IRB amendment.pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • instructions for weight measurement, Category: Participant materials (specific directions for them); • non-contact letter panel 1 time 2, Category: Recruitment materials/advertisements /verbal scripts/phone scripts; • ASU_July_2011_SocialBehavioralapplication_july_22.docx, Category: IRB Protocol; • NJCH_NursesPaperBaseCopy.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); • corner store intro letter, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Rutgers approval.pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • instruction for heigth measurements, Category: Participant materials (specific directions for them); • COSS non-contact email panel 1 time 2, Category: Recruitment materials/advertisements /verbal scripts/phone scripts; • Rutgers_IRB approval - Amend 5 28 14_worksheet Cover-letter (1).pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Rutgers_IRB approval - amend 4 16 14_worksheet (1).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;
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The IRB approved the modification.

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