Connecting with Families around the Table:

The Development of the

Family Table Project

by

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ABSTRACT

Formative research was conducted to guide the development of a shared meal preparation and nutrition education program in order to meet the needs and interests of low-income families in Barron County, Wisconsin, while encouraging the consumption of healthy, locally produced foods. Parents and caregivers who participate in programs offered through the Barron County Wisconsin Nutrition Education Program or the Rice Lake Head Start program were recruited to complete a survey and participate in focus group discussions. Survey data was analyzed for frequency statistics in order to identify current approaches to food attainment, meal preparation, family meal frequency, and characteristics of family meal routines. Content analysis and coding techniques resulted in the emergence of themes, including approaches to family meals, standards for and barriers to ideal family meals, and direct input about program components from focus

group discussion scripts. Results indicate that many families in the program's target audience engage in frequent family meals, perceive time and limited budgets as barriers to healthy eating, and are interested in expanding cooking skills and nutrition-related knowledge. Recommendations for the program include an interactive approach to nutrition education, opportunities for experiential learning, and the promotion of the shared meal preparation sessions as a way for families to conveniently and economically feed their families nutritious meals.

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Chapter One: Introduction

One of the overarching goals of Healthy People 2010, the leading set of health objectives for the United States, is to eliminate health disparities among segments of the population, including those that vary with socioeconomic status (U.S. Department of Health and Human Services [USDHHS], 2000). Chronic diseases, including heart disease and type 2 diabetes, afflict low-income communities disproportionally (USDHHS, 2000). Congruently, disproportionate rates of overweight and obesity are also found in low-income and food insecure populations (USDHHS, 2000). These two conditions substantially increase the risk for development of type 2 diabetes, dyslipidemia, hypertension, and the risk of morbidity from heart disease, stroke, and some cancers (USDHHS and National Institutes of Health, 2000). While the prevalence of obesity and overweight amongst all adults and children in the United States has increased rapidly since the 1970s, specific segments of the population appear to be more vulnerable to these conditions (USDHHS, 2001).

The highest rates of obesity are found in women and adolescents from low-income households. The United States Department of Health and Human Services estimated that, when compared to women of higher socioeconomic status, women from low-income households (defined as having a total income of less than or equal to 130% of poverty threshold) are approximately twice as likely to be obese (USDHHS, 2000). Evidence for the associations between overweight and obesity in children and adolescents and socioeconomic status is weaker; however, some research indicates that an inverse relationship between prevalence of overweight and family income for non-Hispanic white adolescents may exist (Troiano & Flegal, 1998).

The relationship between diet and the development of overweight, obesity, and other chronic diseases is indisputable and changes in the food environment in the United States have been identified as significant influences on this epidemic (Koplan, Liverman, & Kraak, 2005). One mechanism that may play a critical role in this disparity is the limited availability and higher cost of nutritious foods paired with an increased availability of energy-dense convenience foods. Most often, energy-dense foods are less expensive than foods of lower energy density and higher nutrient density, such as fruits, vegetables, and whole grains (Drewnowski & Specter, 2004). The nutritional quality of the foods most readily available to low-income households is speculated to provide adequate and often even excessive energy, but may not support a positive nutritional status (Tanumihardjo et al., 2007). Dietz (1995) called attention to the possible causal relationship between hunger and obesity and proposed that food choices or physiologic adaptations in response to food insecurity may underlie this contradictory association. More recently, Tanumihardjo et al. (2007) proposed that "a newly appreciated paradox has been described that links poverty, food insecurity, and malnutrition to obesity, or a state of *overnutrition*" (p. 1966).

Research has shown that improving the diets of low-income populations requires changing environmental factors so that healthy food is as accessible as other unhealthy choices (Story, Kaphingst, Robinson-O'Brien, & Glanz, 2008). An ecological perspective for understanding the determinants of behaviors requires consideration of environmental influences, including physical, cultural, and social environments, in addition to biological and psychological influences, that interact to determine health behaviors. These multiple levels of influences must be addressed in order to achieve

sustainable changes in health behaviors (Sallis, Owen, & Fisher, 2008). Authoritative documents, such as Healthy People 2010 and the Institute of Medicine's report on childhood obesity prevention recommend the use of ecological approaches to guide the development of nutrition-related health behavior interventions (Koplan, et al., 2005; USDHHS, 2000). As stated in the Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity: "Individual behavioral change can occur only in a supportive environment with accessible and affordable health food choices" (USDHHS, 2001, p. 16).

An ecological model posed by Story et al. (2008) proposes that eating behavior results from the interplay of individual factors (biological and psychological), social environments (social and family networks), physical environments, and macro-level (i.e. societal, policies, systems) environments. Family interactions, a significant component of the social environment, frequently take place in the physical environment of the home (Story et al., 2008). Influences on the food environment within the home require attention given that an estimated 68% of total calories in a typical American's diet are derived from foods prepared at home (Guthrie, Lin, & Frazao, 2002). Moreover, specific characteristics of the family and home environments have been linked with healthy dietary behaviors. Increased availability and accessibility of healthy foods within the home, frequent family meals, authoritative feeding styles, and parental modeling may promote healthful dietary patterns amongst the family members, especially children and adolescents (Story et al., 2008).

Members of the Northwestern Wisconsin Local Food Network in Barron County, Wisconsin and the West Central Community Action Agency recognized the need to

increase the accessibility and availability of healthy and locally grown foods to low-income families in order to increase food security in the county. An idea that followed a popular shared meal preparation business model was developed and entitled the Family Table Project. The underlying purpose of the Family Table Project is to address the aforementioned associations between healthy dietary behaviors and the family's home environment, while increasing the consumption of locally grown foods, through a shared meal preparation and nutrition education program serving low-income residents of Barron County, Wisconsin. After being awarded a collaboration development grant through the University of Wisconsin School of Medicine and Public Health's Community-Academic Partnership Fund in the spring of 2008, the Family Table Project Advisory Committee, a leadership and planning group that is composed of public health professionals and university researchers, was formed. The committee identified a need to conduct formative research to determine, rather than assume, the practical needs of the families in Barron County in order to develop a sustainable program.

Statement of the Problem

The primary goal of the Family Table Project is to connect low-income families in Barron County, Wisconsin with locally produced, nutritious foods through a shared meal preparation program that incorporates nutrition education and social interactions. Two phases of formative research for this community partnership-based pilot project took place between August and November of 2008. Individuals, aged 18 years or older, who share a residence with at least one dependent minor and participate in the programs offered through Barron County's Wisconsin Nutrition Education Program (WNEP) or the Rice Lake Head Start program were recruited to complete a survey. Then, a second

sample from this population participated in focus group discussions. Results gathered from analyses of quantitative and qualitative data will inform the development of the Family Table Project shared meal preparation pilot sessions to reflect the needs and interests of the Project's target audience.

Research Questions

There are three main questions that this research attempted to answer:

1. What are the current approaches to food attainment and meal preparation, frequency of family meals, and family meal routines of the Family Table Project's target audience?
2. What are the perceived barriers, if any, of low-income families in Barron County, Wisconsin to attaining and consuming nutritious foods and eating meals as a family?
3. What specific components does the Family Table Project need to include in order to address the needs and interests of its target audience?

Definition of Terms

The following terms are defined to lend clarity to the content of this research.

Content analysis. An approach to qualitative data collection that involved organizing, classifying, and summarizing data, discovering patterns and themes, and summarizing what has been learned as it relates to the research questions (Harris et al., 2009, p. 81).

Ecological model (also referred to as ecological perspective). Theoretical framework for understanding the multiple and interacting determinants of health behaviors with the purpose of informing the development of comprehensive intervention

approaches that systematically target mechanisms of change at several levels of influence (Sallis et al., 2008)

Energy density. "The amount of energy (kilocalories) stored in a given food per unit of volume or mass" (Koplan et al., 2005, p. 333).

Environment. "Factors external to the individual" (Contento, 2007, p.148). In this paper, multiple levels of the environment are addressed, including the physical environment, social environment, and the macro-level environment.

Experiential learning. Educational activities that are designed to enhance skills and efficacy by offering learners opportunities to engage in skill-building while observing, practicing, and mastering modeled behavior (Chaudhary & Kreiger, 2007).

Facilitated group discussions. A client-centered, interactive form of participatory learning in which group members share their personal knowledge and experiences with others (Abusabha, Peacock, & Achterberg, 1999).

Family meal routine. Typical characteristics of the family meal, including the frequency of occurrence, approaches to serving food, the family members that are present, and the interactions that occur throughout the meal.

Focus groups. A method of qualitative data collection involving 7 to 12 individuals recruited through purposive sampling who are asked questions relevant to general research questions and prompted to respond and discuss with group members freely (Harris et al., 2009).

Food accessibility. Presence of foods of interest in a form, location, and time that facilitates consumption. For example, ready-to-eat carrot sticks in a bowl at the front of a refrigerator shelf next to low-fat dip at a snack time (Cullen et al., 2003).

Food availability. Presence of foods of interest in an environment. For example, ready-to-eat carrot sticks in a bowl at the front of a refrigerator vegetable bin or on the fast food menu (Cullen et al., 2003).

Food insecurity. Limited access to adequate and safe food due to a lack of money or other resources (Nord, Andrews, & Carlson, 2008).

Food security. Consistent and dependable access to enough food at all times to support an active and healthy lifestyle (Nord et al., 2008).

Formative research. An assessment of a target audience's interests, needs, behaviors, and practices that is conducted prior to the implementation of an intervention or program in order to understand the potential mediators of these characteristics (Contento, 2007).

Head Start. A national program that provides grants to public and private agencies to provide educational, health, nutritional, social and other services to economically disadvantaged children and families (Office of Head Start, 2009).

*Healthy diet (*also referred to as *healthful* or *balanced).* An overall dietary pattern that includes a wide variety of nutrient-dense foods and provides adequate amounts and proportions of macronutrients (protein, carbohydrates, and fat), essential micronutrients, dietary fiber, and adequate energy to meet the body's needs for maintenance, growth, and development without promoting excess weight gain (Koplan et al., 2005).

Healthy eating behaviors. Behaviors and actions that result in the consumption of a balanced diet and contribute to a state of physical, mental, and social well-being (Koplan et al., 2005).

Low-income. A total household income of less than or equal to 130% of poverty threshold (USDHHS, 2000). At the time of study, the poverty guideline was $21,200 for a family consisting of two adults and two children (USDHHS, 2008).

Northwestern Wisconsin Local Food Network. A grassroots group of local farmers, agency staff, and volunteers that are working towards a common goal of connecting all segments of the community with locally produced, fresh and nutritious food while preserving the region's environment and sustaining the local economy.

Nutrient density. "The amount of nutrients that a food contains per unit of volume or mass" (Koplan et al., 2005, p. 335); often described in relationship to the food's energy density.

Obesity. An excess amount of subcutaneous body fat in proportion to lean body mass. In adults, a body mass index (BMI) of 30 kg/m^2 or higher is considered obese (Center for Disease Control and Prevention [CDC], 2009b). Obesity in children is classified by the age- and gender-specific body mass index that are equal or greater than the 95^{th} percentile of the Centers for Disease Control and Prevention's growth charts (CDC, 2009a).

Overweight. Defined clinically as a BMI of 25 to 29.9 for adults (CDC, 2009b). For children and adolescents (aged 2 to 19 years), overweight is defined by the age- and gender-specific body mass index values above the 85^{th} percentile and lower than the 95^{th} percentile of the Centers for Disease Control and Prevention's growth charts (CDC, 2009a).

Picky eaters. An eating behavior generally characterized by an "unwillingness to try new foods (neophobia) together with avoidance of certain food groups and strong

preferences concerning food presentation and preparation" (Cooke, Wardle, & Gibson, 2003, p. 205)

Self-efficacy. The confidence one has to successfully perform behaviors that bring desired outcomes (McAlister, Perry, & Parcel, 2008).

Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). A federal nutrition assistance program that provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to the age of five who are found to be at nutritional risk (Food and Nutrition Service, n.d.)

Thematic coding. A method of organizing qualitative data through the use classification codes to group major themes, ideas, and interpretations during analysis (Harris et al., 2009).

West Central Community Action Agency. A non-profit community action agency that operates anti-poverty programs to promote self-sufficiency of low-income families in west central Wisconsin (West Central Community Action Agency, Inc., 2005).

Wisconsin Nutrition Education Program (WNEP). A federally funded nutrition education program for limited resource families that is operated by the University of Wisconsin-Extension (University of Wisconsin Cooperative Extension, 2009).

Assumptions and Limitations

While considering the results of this formative research, it is important to keep the following assumptions and limitations in mind. Throughout the two phases of the research, it was assumed that all participants were residents of Barron County, Wisconsin

and were eligible to participate in programs offered by the Barron County WNEP. Due to their participation in these programs, it was deduced that participating families met the income requirements for the programs. It was also assumed that survey respondents and focus group participants answered questions honestly and completely. Finally, it was assumed that the five research team members facilitated surveys and conducted focus group sessions in a consistent and accurate manner.

Limitations of the research methodology include the purposively recruited and relatively small sample from one rural county in Northwestern Wisconsin, the lack of validation of the survey instrument, and the subjective nature of qualitative data analysis. These limitations are discussed further in the conclusion of chapter three.

Chapter Two: Literature Review

This chapter will review research that supports the principal objectives of the Family Table Project. First, components of family interactions and the home environment that have been found to promote healthful eating behaviors in children and adolescents will be discussed. Then, a description of the factors that have been found to influence food choices made by low-income families will follow. Finally, the efficacy of experiential learning and facilitated group discussions, two components of an interactive approach to nutrition education, will be described. Information from this chapter will establish the rationale for addressing the family and home environments and the influences on food choice through interactive educational methods.

Family Interactions and the Home Environment

Characteristics of family interactions such as the frequency of family meals, parental feeding styles, and parental modeling are considered to be influential factors on the development of children's dietary intake and eating behaviors (Baranowski & Hearn, 1997; Story et al., 2008). Additionally, the availability and accessibility of foods within the home may influence overall dietary patterns of the family (Baranowski & Hearn, 1997; Story et al., 2008). While all family members are likely influenced by these characteristics, research has predominantly focused on eating behaviors of children and adolescents.

Food availability and accessibility. The presence of healthful foods (availability) in a form and location that facilitates consumption (accessibility) promotes the consumption of these foods by family members (Baranowski & Hearn, 1997). For example, Hearn et al. (1998) compared children's dietary intake through seven-day food

records with parents' perception of availability and accessibility of fruits and vegetables and reported a positive association. Cullen et al. (2003) examined child-reported and parent-reported availability and accessibility and found significant correlations with children's consumption of fruits, 100% fruit juice, and vegetables. Increased availability of fruits and vegetables in the home has also been positively related to increased consumption by parents (Kratt, Reynolds, & Shewchuk, 2000). The relationship between the availability and accessibility of ready-to-eat healthful food in the home with consumption of these foods has been implicated to occur through a direct facilitating relationship. Hearn et al. (1998) speculated that: "the easier it is to obtain the fruits and vegetables, the more likely children are to eat them."

Associations between family meals and dietary intake. Three large, population-based studies have investigated associations between family meal patterns and dietary intake among children and adolescents. Due to the large population-based samples and scope of the studies, the Growing Up Today Study, the National Longitudinal Study of Adolescent Health (Add Health) Study, and Project EAT (Eating Among Teens) require attention when discussing the importance of family meal frequency and potential effects on overall diet patterns.

The Growing Up Today Study examined associations between the frequency of family dinners and dietary intake in a population-based sample of 15,202 girls and boys aged 9 to 14 years who were children of participants involved in a cohort study of over 116,000 female registered nurses, titled the Nurses' Health Study II (Gillman et al., 2000). Results indicated that family dinner is associated with healthful dietary patterns. Specifically, subjects who ate family dinner every day consumed an average of 0.8 more

servings of fruits or vegetables than those who ate family dinner never or some days (Gillman et al., 2000). Consumption of fried food and soft drinks was reported much less frequently as frequency of family meals increased (Gillman et al., 2000). Slightly higher energy intakes, substantially higher intakes of calcium, dietary fiber, folate, iron, vitamins B_6, B_{12}, C, and E, and lower intakes of saturated and trans fat were reported by subjects who ate family dinners more frequently (Gillman et al., 2000).

One limitation of the Growing Up Today Study lies in the fact that all subjects were sons or daughters of registered nurses, implying that at least one parent had received post-secondary education and maintained a full-time job and, additionally, the sample lacked representation of race, ethnicity, and socioeconomic status (Gillman et al., 2000). In contrast, the National Longitudinal Study of Adolescent Health (Add Health Study) is an on-going, nationally representative, school-based study that includes all high schools in the United States included in its sampling frame (Videon & Manning, 2003). Family meal frequency was measured in a nationally representative sample of 18,177 adolescents in grades 7 through 12 (Videon & Manning, 2003). Adolescents were asked how many times at least one parent was present when they ate their evening meal in the past seven days (Videon & Manning, 2003). Of greatest significance, data analyses revealed that the presence of at least one parent reduced the risk of poor consumption of fruits, vegetables, and dairy products (Videon & Manning, 2003).

Also, in an attempt to expand the generalizability of research examining the relationship between family meal patterns and dietary intake among adolescents, Neumark-Sztainer, Hannan, Story, Croll, and Perry (2003) studied data drawn from Project EAT. Meal patterns were compared across the variables of family meal

frequency, dietary intake, gender, school level, race/ethnicity, mother's employment status, and socioeconomic status to those meal patterns previously studied by Gillman et al. (2000). Project EAT also observed relationships between dietary intake and frequency of family meals in a diverse sample of 4,746 adolescents aged 11 to 18 years from 31 urban public schools in Minnesota (Neumark-Sztainer et al., 2003). Higher intakes of fruits and vegetables and lower intakes of snack foods and soft drinks were observed with increased frequency of family meals (Neumark-Sztainer et al., 2003). Frequency of family meals was also positively correlated with dietary intakes of calcium, dietary fiber, folate, iron, vitamins B_6, C, and E, demonstrating strong associations between family meals and dietary intake (Neumark-Sztainer et al., 2003).

The Growing Up Today Study, the Add Health Study, and Project EAT reported common conclusions. Frequency of family meals was associated with diet quality variables that, based upon current knowledge of relationships of certain foods, food groups, nutrients, and dietary behaviors, are associated with increased or decreased risk of common diseases of adolescence and adulthood, including iron-deficiency anemia, diabetes, osteoporosis, cardiovascular disease, and cancer (Gillman et al., 2000). The Growing Up Today Study and Project EAT examined specific nutrients. Both observed positive associations between dietary intakes of calcium, dietary fiber, folate, iron, vitamins B_6, C, and E and family meal frequency (Gillman et al., 2000; Neumark-Sztainer et al., 2003). The Add Health Study examined food group consumption, rather than specific nutrients and found positive associations between fruit, vegetable and dairy food consumption with family meal frequency (Videon and Manning, 2003). Since many foods from the fruit, vegetable, and dairy food groups are generally good sources of

calcium, dietary fiber, folate, iron, vitamins B_6, C, and E, it can be concluded that the three large, population-based studies were in agreement. Soft drink consumption, an eating behavior that has been associated with an increased risk for the development of obesity in children, was found to be lower with increased family meal frequency (Gillman et al., 2000; Ludwig, Peterson, & Gortmaker, 2001; Neumark-Sztainer et al., 2003). Also of notable significance, commonalities across sociodemographic characteristics were associated with family meal frequency in the three studies. Girls and older adolescents were more likely to report fewer family meals in the Add Health Study and in Project EAT (Neumark-Sztainer et al., 2003; Videon & Manning, 2003).

The specific pathway through which family meals influence dietary patterns remains unknown. Neumark-Sztainer et al. (2003) stated, "Although clear associations were found between frequency of family meals and dietary intake, we cannot be sure that the family meals were leading to improved dietary intake or, rather, that other common factors within the family environment were leading to both increased family meals and better dietary intake" (p. 321). Theories about the pathway through which family meals impact dietary habits have been proposed. One speculation is that family dinners contain foods that are generally more healthful than would be eaten otherwise. In the Growing Up Today study, Gillman et al. (2000) examined the frequency of consuming dinners consisting of ready-made foods such as frozen dinners, Spaghetti-Os, and microwave meals (Gillman et al., 2000). Data indicated that the frequencies of ready-made dinners and family meals were inversely correlated, suggesting that family meals may lead to consumption of fewer ready-made foods (Gillman et al., 2000). Considering the nutritional quality of most ready-made foods, this relationship may contribute to a higher

quality diet. Another hypothesis that has been proposed is that children who eat family dinner more frequently have healthier eating habits that are unrelated to eating family meals. Evidence suggests that healthier home environments support healthier family meals; however published data has not yet supported this hypothesis (Gillman et al., 2000). On the other hand, there is evidence that family meals represent an important opportunity for exposure to healthful choices and parental modeling of eating behaviors (Larson, Neumark-Sztainer, Hannan, and Story, 2007; Patrick, Nicklas, Hughes, & Morales, 2005). Children learn about food not only through direct experiences, but also through observations of others' eating behaviors (Savage, Fisher, & Birch, 2007). The influence of parental modeling and repeated exposure to healthy foods on children's eating behaviors will be discussed later in this chapter.

While the three studies described above provide significant evidence for frequent family meals as a practice that may promote healthy eating behaviors, one element of the family mealtime environment that may have a negative impact on dietary patterns is television viewing. Television viewing during meals has been negatively associated with fruit and vegetable intake in children and adolescents (Boutelle, Birnbaum, Lytle, Murray, & Story, 2003; Coon, Goldberg, Rogers, & Tucker, 2001; Fitzpatrick, Edmunds, & Dennison, 2007). A significant association between the presence of television at meals and children's increased consumption of all meats, pizza, salty snacks, and soft drinks has also been documented (Coon et al., 2001). The effects of family meals and of having the television on during mealtimes appear to be in opposition in regards to promoting healthful diets. As stated by Fitzpatrick et al. (2007): "Having dinner as a family does not overcome the adverse effects of having the television on during mealtime" (p. 607).

Parental feeding styles. Research has also determined that an important factor that plays a role in the children's eating behaviors and dietary intake is parental feeding styles (Story et al., 2008). Specifically, the control that parents exert over children's food intake and the responsiveness to children's hunger and preferences may have long-lasting consequences on eating behaviors (Birch & Fisher, 1998). Three feeding patterns that are typified based upon the levels of control and responsiveness of parents are referred to in research as authoritarian, permissive, and authoritative. Authoritarian styles are characterized by high levels of pressure and attempts to control the child's dietary intake with little regard for the child's preferences (Patrick & Nicklas, 2005). In contrast, permissive styles are characterized by little or no structure with regards to the type and quantity of food the child is allowed to consume and low expectations for child self-control (Jain at al., 2001; Patrick & Nicklas, 2005). Authoritative feeding has been defined as the balance between these extremes, whereby the parent sets respectful boundaries, provides and encourages healthy foods, and is responsive to preferences by giving the child the choice as to which of the foods is eaten (Patrick & Nicklas, 2005; Lytle et al., 2003).

Differences between these three parental feeding styles are suggested to have important implications on the development of children's eating behaviors. Authoritarian and permissive styles may promote less healthful dietary patterns and poor self-regulation of behavior (Hubbs-Tait, Kennedy, Page, Topham, & Harrist, 2008). A high level of parental control, characteristic of an authoritarian feeding style, has been associated with a lower consumption of fruits and vegetables by children (Patrick et al., 2005; Wardle, Carnell, & Cooke, 2005). Permissive feeding styles have been related to child-led

snacking, higher energy intakes, and, consequently, a higher frequency of child overweight (Jain et al., 2001).

In contrast, authoritative feeding styles may encourage the development of healthy dietary patterns and increased self-control (Hubbs-Tait et al., 2008). An authoritative feeding style has been positively associated with preschool-aged children's consumption of dairy products, fruits, and vegetables (Lytle et al., 2003; Patrick et al., 2005). It appears that parents who take a responsive approach to feeding also tend to make healthy foods more available and accessible within the home and serve as models of healthful eating behaviors. Additionally, authoritarian feeding styles have been associated with a lower availability of fruits and vegetable whereas authoritative feeding styles have been associated with an increased availability of fruits and vegetables (Patrick et al., 2005; Wardle et al., 2005).

Parental modeling. Consumption of nutrient-dense foods, such as fruits, vegetables, and dairy products, by parents has been identified as a predictor of children's consumption of these foods. In one study of parental influence on fruit and vegetable intake by five-year old girls, parents who consumed more fruits and vegetables had daughters that consumed more fruits and vegetables, portraying what the authors coined a "do as I do" approach (Fisher, Mitchell, Smiciklas-Wright, & Birch, 2002). Lee and Reicks (2003) examined the calcium intake of low-income adolescent girls and found that girls who reported that they often see their fathers drinking milk had significantly greater calcium intakes than others. Similarly, the consumption of milk and soft drinks by mothers has been established to directly influence young girls' intake of these beverages (Fisher, Mitchell, Smiciklas-Wright, & Birch, 2000).

Researchers who have examined environmental influences on the development of children's eating patterns frequently conclude that parental modeling may be the strongest predictor of children's eating behaviors (Cooke et al., 2004). Due to data that indicates parental consumption of fruits and vegetables is positively related to children's intake in homes with a high level of availability of fruits and vegetables, Kratt, Reynolds, and Shewchuk (2000) suggested a direct and positive effect of parental modeling of fruit and vegetable consumption on child consumption when these foods are available. Moreover, it is likely that when parents are consistently consuming healthful foods, these foods will consistently be available and accessible to children (Lee & Reicks, 2003).

Increased availability and accessibility of nutrient-dense foods, frequent family meals, an authoritative feeding style, and parental modeling of a healthy eating patterns are characteristics of family interactions and the home environment that promote healthy eating amongst children. The pathway through which these factors influence the dietary intake of children and adolescents has been proposed to occur through repeated exposure (Larson et al., 2007; Patrick et al., 2005). Repeated exposure has been acknowledged as a strategy for promoting healthy eating behaviors and encouraging young children's consumption of unfamiliar and previously rejected foods (Birch & Marlin, 1982; Savage, Orlet, & Birch, 2007; Wardle, Herrera, Cooke, & Gibson, 2003). Encouraging low-income parents to engage in these behaviors may be one step towards promoting children's development of healthful dietary patterns, and therefore decrease the risk for obesity and related chronic diseases.

Influences on Food Choices

As noted in chapter one, disproportionate rates of overweight and obesity are found in low-income and food insecure populations (USDHHS, 2000). The relationship between dietary intake and body weight supports the importance of understanding the factors that are most influential in the food choice considerations of low-income families. Taste preferences, a lack of time and desire for convenience, and financial constraints have been identified as significant influences and barriers to purchasing and consuming healthy foods.

Taste preferences. A study that measured the levels of importance that taste, nutrition, cost, convenience, and weight concerns had on food choices reported that, amongst all respondents in a large national sample of adults from all socioeconomic backgrounds, taste was regarded as the most important influence on food choices (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998). Within the context of family meals, accommodating the taste preferences of family members has been found to influence the foods prepared in low-income households. For example, taste preferences of the family was reported to be a barrier for eating and preparing healthy foods by low-income mothers (Chang, Bauman, Nitzke, Brown, 2005; Chang, Nitzke, Guilford, Constance, & Hazard, 2008; Eikenberry & Smith, 2004). Additionally, mothers have stated that young children in their families will eat only certain foods during selected phases of taste preferences and this posed challenges for introducing new fruits and vegetables into meals that are prepared for the whole family (Reicks, Randall, & Hayness, 1994).

Time and convenience. When residents in low-income communities were asked to identify barriers to healthy eating, the most frequently cited barrier was time, followed by

financial considerations (Eikenberry & Smith, 2004). Focus groups with low-income mothers have concluded that unhealthful foods tend to be chosen for convenience or ease of preparation and related this to mothers' perceptions of a lack of adequate time to prepare healthy meals (Chang et al., 2008; Reicks et al., 1994). In one study, mothers explained that when children are hungry, quick and convenient options are most easily prepared and satisfying (Krummel, Humphries, & Tesssaro, 2002). Furthermore, interviews with low-wage employed parents determined that quick, convenient meals consisting of takeout or fast foods were used as a coping strategy to deal with work fatigue and family demands (Devine et al., 2006).

Financial constraints. The cost of food may be more influential to people with lower incomes in comparison to others from higher income levels (Glanz et al., 1998). Limited budgets and the perception that healthy foods are expensive have been found to discourage mothers from purchasing healthful foods (Chang at al., 2005; Chang et al., 2008; Eikenberry & Smith, 2004). For instance, low-income mothers perceived fruits and vegetables as expensive and stated that they tend to limit the amount that is purchased for the family (Reicks et al., 1994; Havas et al., 1998). A relationship between income and the likelihood of purchasing fruits and vegetables may exist. Fruit and vegetable availability in homes has been found to be directly related to parent-reported family income (Kratt et al., 2000).

While taste preferences, perceptions of time constraints, and importance of convenience are considered factors that influence food choice at the individual level, food pricing occurs at the macro-level (Story et al, 2008). Data has indicated that energy-dense foods are generally less expensive than foods of lower energy density and higher nutrient

density, such as fruits, vegetables, and whole grains (Drewnowski & Specter, 2004). The U.S. Department of Agriculture documented that retail prices of fresh fruits and vegetables were highest compared to all other food categories between 1985 and 2000 (Putnam, Allshouse, & Kantor, 2003). Market-basket surveys suggest similar conclusions. Jetter and Cassady (2006) surveyed 25 stores in two urban California cities three times over a 10-month period. In addition to limited availability of many healthy foods, particularly whole grain products and lean meats, healthier market baskets were always significantly more expensive than baskets containing a combination of foods considered less healthful (Jetter & Cassady, 2006). Monsivais and Drewnowski (2007) assessed retail food prices from major supermarket chains in the Seattle metropolitan area and observed that energy-dense grains, fats, and sweets were associated with lower costs compared to fruits, vegetables, lean meats, and low-fat dairy products. Moreover, the inflation rate from 2004 to 2006 was highest for foods of lower energy-density, primarily fresh fruits and vegetables, and lowest for foods of higher energy density, including fats, sugars, grains, nuts, and meats (Monsivais & Drewnowski, 2007). Due to its influence on food choices made by low-income families, the cost of food may significantly impact the overall dietary patterns of these individuals due to financial constraints.

Interactive Approaches to Nutrition Education

Facilitated group discussions. In group settings, nutrition education is predominantly delivered through traditional classroom methods, such as lecture-style (Contento, 2007). An alternative approach that may be most effective with adult learners is facilitated group discussions (Contento, 2007). Facilitated group discussions have been described as an interactive method of nutrition education in which learners generate the

specific topics to be addressed and share their knowledge and experiences with other group members (New Mexico WIC Program, 1994). Creating a supportive environment where learners are viewed as equal partners with educators fosters active participation (Abusabha et al., 1999). Moreover, learners are placed in a position to exert control over their own decisions and develop their own solutions to problems (Abusabha et al., 1999). A comparison of lecture format, brochures, and facilitated group discussions as methods of delivering nutrition education to WIC clients documented the effectiveness of facilitated group discussions in improving participants' self-efficacy (Abusabha, Achterberg, McKenzie, & Torres, 1998). Furthermore, facilitated group discussions in positive social settings that incorporated active experiences with fruits and vegetables have shown increases in consumption of these foods (Devine, Farrell, & Hartman, 2005).

Experiential learning. Self-efficacy is defined as the confidence one has to successfully perform behaviors that bring desired outcomes (McAlister et al., 2008). A low level of self-efficacy for a specific behavior, such as cooking healthy foods, acts as a barrier to behavior change (Contento, 2007). Experiential learning activities, including hands-on food demonstrations, preparation, and sampling, offer opportunities for participants to engage in mastery experiences, develop skills, and therefore enhance self-efficacy (Chaudhary & Kreiger, 2007; Contento, 2007; Koplan et al., 2005). A recent review of literature focusing on the inclusion of hands-on, skill-building cooking activities in adult nutrition education programs determined that significant increases in self-efficacy is a probable result of advancing cooking skills and knowledge (Michaud, Condrasky, & Griffin, 2007).

Nutrition education programs that incorporated cooking activities have also observed positive changes in dietary intakes. For instance, a program that included classes on a variety of fruit and vegetable preparation methods and taste samplings evaluated dietary intake and through pre- and post-education questionnaires and observed significant increases in the number of fruit and vegetable servings consumed per day by participants (Brown & Hermann, 2005). Another program that included food preparation and tasting exercises to encourage healthful recipe modifications reported significant improvements in participants' intake of dietary fiber, fat, and sodium (Woodson, Braxton-Calhoun, & Benedict, 2005). Additionally, hands-on food preparation programs have found increased participation rates when compared to traditional classroom-style programs (Meloche, 2003).

Summary

The literature reviewed in this chapter indicates that multiple factors likely influence the dietary habits of low-income families. Influences on food choices, including taste, time, convenience, and financial constraints affect the overall quality of family members' diets by determining the food that is brought into the home. Additionally, characteristics of the family and home environment interact to shape the development of eating behaviors. Through facilitated group discussions and experiential learning, educators can target these influences, while encouraging social support, promoting the development of cooking skills, and enhancing self-efficacy.

Chapter Three: Methodology

The prevalence of obesity and overweight in the U.S. population has increased rapidly since the 1970s. Low-income populations compose a disproportionate segment of the population classified as obese and overweight; two conditions that are a result of a diet that provides excessive energy (USDHHS, 2000). Research has indicated that dietary patterns are influenced by the interaction of environmental influences, including food pricing and characteristics of the family and home environments. The primary goal of the Family Table Project is to address the recognized associations between healthful dietary behaviors and the family's home environment, while increasing accessibility to nutritious, locally grown foods, through a shared meal preparation and nutrition education program serving low-income residents of Barron County, Wisconsin. This formative research was conducted to guide the development of this program and consisted of two phases. First, a survey was conducted with members of the project's target audience. The second phase consisted of focus group discussions. The recruitment of participants, development of data collection tools, and methods used for data collection and analysis for the survey and focus groups will be explained in this chapter. The chapter will conclude with limitations of the research methodology.

Family Table Project Survey

Respondent Selection and Description

Adults living in Barron County, Wisconsin, a rural, agricultural-based county, were purposively recruited to achieve a sample of the Family Table Project's target audience for the survey and focus group sessions. Low-income parents and caretakers, aged 18 years or older, living with at least one dependent minor were contacted through

the Barron County WNEP and the Rice Lake Head Start Program. The WNEP partners with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and other community agencies to provide nutrition education to families and individuals who are eligible for the FoodShare Program (formerly known as the Food Stamp Program). To be eligible for FoodShare, families must be at or below 100% of the federal poverty guideline, which at the time of study was $21,200 for a family of four (USDHHS, 2008). Families with an income level of 100% or below the federal poverty level compose 90% of the participants in the Head Start Program (Office of Human Development Services, 2007)

The Project planning team had an initial goal of recruiting 100 individuals to complete the survey. The goal number of respondents was not derived through sampling calculations for statistical analyses. Rather, the number was a realistic goal given the research objectives and available resources. A total of 64 eligible individuals completed the survey.

Survey Development

The survey tool (Appendix A) was developed through a review of published research that examined the associations between family meal frequency and diet quality (Boutelle et al., 2003; Coon et al., 2001; Fitzpatrick et al., 2007; Gillman et al., 2000; Larson et al., 2007; Neumark-Sztainer et al., 2003; Videon & Manning, 2003). Questions were designed to address the attainment and preparation of food used for family meals, family meal routines, and interest in making changes with regards to family meals and nutrition. Demographic information was requested at the end of the survey. A draft of the tool was reviewed multiple times by the Family Table Project Advisory Committee. Once

finalized, the survey tool was reviewed by the University of Wisconsin-Stout Office of Budget, Planning, and Analysis and approved by the University of Wisconsin-Stout Institutional Review Board (Appendix B) and the University of Wisconsin-Madison Social and Behavioral Institutional Review Board. Finally, the survey was translated into Spanish by a University of Wisconsin-Stout faculty member. No measures of validity or reliability have been documented as this survey was designed specifically for this formative research.

Survey Data Collection

From August through October of 2008, trained project staff recruited WNEP clients to complete the survey in the waiting rooms of WIC clinics in Barron and Rice Lake, Wisconsin. Head Start participants were invited to complete the survey at fall orientation events at Head Start facilities. Project staff provided an informational handout (Appendix C) and a verbal overview of the Family Table Project to those willing to complete the 10-minute survey. Voluntary participation was assured through the use of informed consent forms approved by the Institutional Review Boards at the University of Wisconsin-Stout and at the University of Wisconsin-Madison (Appendix D). The consent form was reviewed verbally and disclosed the purpose of the project, the roles and time commitment of the participant, and confidentiality statements. Participants were given the option of independently completing the survey on paper or completing the survey as a spoken interview. A bilingual translator assisted Family Table Project staff with data collection at Head Start facilities, as needed. Finally, a follow-up form (Appendix E) was completed by survey respondents who expressed interest in participating in future program activities.

Survey Data Analysis

Project staff entered data from surveys into an internet-based survey tool to generate computerized raw data. Statistical analysis of the data was completed with the assistance of the University of Wisconsin-Stout Office of Budget, Planning, and Analysis. The Statistical Program for Social Sciences, version 17.0 (SPSS, 2008), was used to calculate frequencies. Cross-tabulations of the data were also performed through the chi-square test, however it was determined that the sample was too small to yield statistically significant results through this test.

Family Table Project Focus Group Discussions

Participant Selection and Description

The follow-up form (Appendix E) that was completed by survey respondents served as a recruitment tool for the focus group sessions. Individuals who expressed interest in participating in informal group discussions about the Family Table Project on the follow-up forms were contacted by Project staff. Family Table Project staff also collaborated with WNEP and Head Start providers to contact past and current clients about opportunities to participate in the focus group sessions. Interested participants agreed to have their contact information given to Family Table Project staff to be contacted directly. Sessions were scheduled to include as many interested individuals as possible.

Each focus group session included 7 to12 participants. A total of 27 individuals participated in three sessions. Demographic information for the participants was not obtained at the sessions, although all of the focus group participants completed the survey. The eligibility criteria that was established for this research created reasonably

homogenous groups since all participants were low-income adults, aged 18 years or older, living with at least one dependent minor in Barron County, Wisconsin, and participating in either WIC and/or Head Start programs.

Voluntary participation was assured through the use of informed consent forms (Appendix F). As with the consent forms used for the survey, the form was reviewed verbally by a research assistant with each participant prior to the discussions. The purpose of the project, the roles and time commitment of the participant, and confidentiality statements were reviewed. In addition to a meal that was provided before the discussions began, each participant received compensation for participation in a focus group discussion in the form of a $20.00 gift card for a local discount store.

Focus Group Development

A scripted list of open-ended questions was developed by project staff and reviewed by WNEP agency staff (Appendix G). Focus group discussions were facilitated by a qualified member of the Family Table Project planning team. A research assistant served as an observer at each session and hand-recorded notes about the flow of the conversations and participant nonverbal communication. The facilitator and observer sat within the circle of the participant group at each session. Each focus group discussion was audio recorded through the use of a digital recorder that was placed in the middle of table that the participant group sat around. A bilingual translator assisted with interpretation, as needed, for Hispanic participants at two of the sessions.

Focus Group Data Collection

Three 90-minute focus group sessions took place in November 2008. Each session progressed through the following steps. First, the facilitator began with an

engagement question to introduce participants and initiate conversation on the topic of family meals. Then, the discussion script guided the facilitator through two main parts of the discussion. The first set of questions focused on family mealtime patterns. Participants were asked to describe their typical approach to family meals and any changes in their approaches that have occurred over time. The facilitator asked participants to describe the factors in their life that influenced family meals. Participants were also encouraged to offer their opinions about the strengths and weaknesses of their typical family meal routines and behaviors. The second half of the discussion focused on gathering participant input for the design of the Family Table Project meal preparation sessions. For example, participants were prompted to discuss what types of foods they would be willing to prepare. Examples of nutrition-related information and food preparation skills that participants would like to learn and the foods they would like to prepare in the Family Table Project meal preparation sessions were also obtained.

Focus Group Data Analysis

Data analysis of the focus group discussion involved two steps. First, verbatim transcripts were created from audio recordings of the focus group sessions by a Project research assistant. Audio was compared to the written transcript in order to review for accuracy. Second, content analysis and thematic coding were used to analyze data. Two researchers, one with prior experience analyzing qualitative data, independently reviewed transcripts and identified portions of the text that appeared to describe themes. Then, the two researchers met in person to discuss the themes and reconcile differences in the analyses. Themes that are relevant to the research questions at hand are discussed in the following chapter.

Limitations of the Research Methodology

Participants in this study were purposively recruited; however, it is unlikely that the relatively small sample from one rural county is representative of all sociodemographic characteristics of low-income families from counties throughout Wisconsin. In addition, all survey respondents and focus group participants were also actively participating in federal assistance programs, indicating a level of motivation and readiness to seek health, nutritional, educational, and other social services. Therefore, one limitation of this research is the limited generalizability of the results. The results of this cross-sectional study cannot be extended to all low-income populations.

A second limitation is that the survey instrument has not been tested for validity or reliability, as it was developed specifically for this project through a review of relevant published research and with the advisement of WNEP agency staff.

Third, the qualitative data analysis method, such as the technique used to analyze data obtained from focus groups, is considered a subjective analysis. Strategies must be used to ensure reliability, validity, and relevance (Harris et al., 2009). Two researchers evaluated the data independently and compared interpretations in an attempt to ensure reliability. In pursuit of validity, the results of this qualitative data analysis have been compared with existing findings from relevant qualitative and quantitative studies. The relevance of the results with regards to the development of the Family Table Project program sessions is described in chapter five.

Chapter Four: Results

This formative research sought to understand the needs, interests, and behaviors of the target audience for the development of the Family Table Project shared meal preparation and nutrition education sessions. Specifically, the two phases of research, a survey and focus group discussions, were conducted to answer the following three research questions.

1. What are the current approaches to food attainment and meal preparation, frequency of family meals, and family meal routines of the Family Table Project's target audience?
2. What are the perceived barriers, if any, of low-income families in Barron County, Wisconsin to attaining and consuming nutritious foods and eating meals as a family?
3. What specific components does the Family Table Project need to include in order to address the needs and interests of its target audience?

First, a brief survey was conducted at WIC clinics and Head Start facilities to learn about the current approaches to family meals taken by low-income families in Barron County, Wisconsin. A follow-up form that accompanied the survey served as a recruitment tool for three focus group sessions, the second phase of the research. Focus group discussions elicited in-depth information to further guide the development of the program. Survey data was analyzed for frequency statistics using the Statistical Program for Social Sciences (SPSS), version 17.0. Content analysis and coding techniques were used to explore themes in focus group discussion scripts. This chapter will describe the results of these analyses as they relate to the research questions.

Demographics of Barron County, Wisconsin

The Family Table Project formative research took place in Barron County, a rural county located in Northwestern Wisconsin. In 2007, the median household income in Barron County was $43,347 whereas the median income for all households in Wisconsin was $50,567 (U.S. Census Bureau, 2008b). The average poverty rate for Barron County in 2007 was slightly higher for all people in Barron County at 11.9% in comparison to the rate of 10.8% for all people in Wisconsin. Similarly, the average poverty rate for all children between the ages of 0-17 years in Barron county was 15.7% , a slightly higher number than the rate of 14.5% that was observed amongst all children in the same age range throughout the state (U.S. Census Bureau, 2008a). In 2007, 96.4% of the county's population was reported as non-Hispanic White (U.S. Census Bureau, 2008b).

Family Table Project Survey Results

Respondent Demographics

A total of 64 respondents completed the Family Table Project survey. This sample included 59 females and 3 males. Two respondents did not report their sex. Ages ranged from 18 to 61 years. The average respondent age was 28.6 years and the mode age reported was 28 years. Three-quarters (75.0%) of the survey sample was 30 years of age or younger. Three respondents declined to indicate their age. With regards to ethnicity, 90.6% (n = 58) of respondents reported their ethnicity as White. The remaining respondent sample was 3.1% Black/African American (n = 2), 1.6% American Indian/Alaska Native (n = 1), 1.6% Hispanic/Latino (n = 1), and 1.6% Native Hawaiian or Other Pacific Islander (n = 1). One respondent declined to report ethnicity.

When asked to identify the best description of the highest education level completed, respondents provided answers ranging from some high school to one graduate/professional school degree. As depicted in Table 1, high school graduate was the response provided by 39.1% ($n = 25$) of the sample. More than half ($n = 35$) of this sample indicated that they have not received education beyond the high school level.

Table 1

Education Level of Survey Respondents

Response	Frequency	Percent	Cumulative percent
Some high school	10	15.6	15.6
High school graduate	25	39.1	54.7
Technical college graduate	1	1.6	56.3
Attending college	1	1.6	57.9
Some college	19	29.7	87.6
College graduate	6	9.4	97.0
Graduate school degree	1	1.6	98.6
Total (*N*)	63	98.6	
Missing	1	1.6	
Total (*N*)	64	100.0	

Note. Frequency values are reported as *n*.

Survey respondents were asked to indicate the total number of family members in their household. As shown in Table 2, 59.4% ($n = 38$) of respondents indicated that their household consists of four or fewer members, whereas 37.7% ($n = 24$) reported larger households ranging from five to ten family members. When asked how many of these

people, including themselves, were 18 years of age or older, 15.6% (n = 10) indicated that there was only one adult in the household. Forty six (71.9%) respondents reported two adults in the household. The remaining 10.9% (n = 7) of the survey respondents, excluding one individual that declined to answer, lived in a household consisting of three to four adults. Respondents indicated that the number of children that lived in their household ranged from zero to eight. The 53 respondents living in households with three or fewer children made up 85.5% of the sample. Two respondents did not provide the number of children in their household.

Table 2

Total Number of Family Members in the Households of Survey Respondents

Response	Frequency	Percent	Cumulative percent
2	9	14.1	14.1
3	16	25.0	39.1
4	13	20.3	59.4
5	12	18.8	78.2
6	6	9.4	87.6
7	4	6.3	93.9
8	1	1.6	95.5
10	1	1.6	97.1
Total (N)	62	97.1	
Missing	2	3.1	
Total (N)	64	100.0	

Note. Frequency values are reported as n.

Food Attainment

In order to gain insight into the approaches taken to attain food, the survey posed questions about who usually does the grocery shopping or picks up food and where food is typically purchased or picked up. Respondents most frequently chose the response "Me," indicating that 68.8% ($n = 44$) of the individuals who completed the survey usually purchased or picked up the food used for family meals. A written-in response of "Both" or the option "Me and my husband/wife/partner" indicated that two adults in the household may play a role in attaining food for family meals, was chosen by 17.2% ($n = 11$) of the respondents, while the single response of "My husband/wife/partner" was given by 4.7% ($n = 3$) of survey respondents. One individual declined to answer and the remaining responses ($n = 5$) described this role as the responsibility of the whole family or other family members such as grandmothers and siblings.

Survey respondents were asked to identify all of the places that their family purchases or picks up any of the food that is prepared at home from a list of common food outlets: (a) local grocery stores, (b) farmers' markets, (c) discount stores, (d) food pantries, (e) convenience stores/gas stations, and (f) other. Table 3 displays the frequency that each type of food outlet was chosen. Responses that were written in for the "Other" survey question response option included "fast food," "co-op," "work," and specific names of discount stores. Respondents were then asked to choose the one place where the family typically gets most of the food that is prepared at home. Grocery stores were selected by 71.9% ($n = 46$) of the respondent sample as the primary food outlet and discount stores were chosen by 26.6% ($n = 17$) and one person declined the answer this question.

Table 3

Food Outlets Used by Survey Respondents to Attain Food that is Prepared at Home

Food outlet	Frequency	Percent
Local grocery store	61	95.3
Farmers' market	27	42.2
Discount store	25	39.1
Food pantry	10	15.6
Convenience store/gas station	9	14.1
Other	3	4.7

Note. Frequency values represent the number of times each food outlet was chosen by respondents. Respondents were able to select more than one choice ($N = 64$).

Meal Preparation

To obtain information about typical approaches to meal preparation, survey respondents were asked to indicate who usually prepares the main family meal in the household. The response "Me" was chosen by 65.6% ($n = 42$) of respondents, indicating that most individuals completing the survey usually prepare the main family meals. Ten (15.9%) individuals indicated that family meals are prepared by "Me and my husband/wife/partner" and 10.9% ($n = 7$) chose "My husband/wife/partner" as their response. The remaining 6.3% ($n = 4$) of respondents indicated that another family member usually prepares meals by writing in responses such as "My mother" and "Sister." One respondent did not complete this question.

Survey respondents estimated the time that is spent preparing the main family meal in their household. It was estimated by 59.4% ($n = 38$) of the sample that the main

meal is typically prepared in 30 minutes or less. Twenty one (32.8%) respondents estimated that the main meal is prepared in about 45 minutes. The main meal is typically prepared in one hour or more by 6.3% ($n = 4$) of the respondents and one respondent left this survey question blank.

Respondents were also asked to estimate the number of times per week that most or all of the people in their family eat the main meal with food consisting primarily of take-out food or packaged ready-to-eat items or primarily of food cooked at home "from scratch" (Table 4). Thirty nine (61.0%) individuals stated that the family's main meal consisted primarily of take-out food or packaged ready-to-eat items two or fewer times per week while five individuals (7.8%) estimated that their main meals contained these items five to seven times per week. Half of the respondents ($n = 32$) indicated that their family's main meal consists of foods cooked at home, primarily from scratch five to seven times per week.

Table 4

Average Times per Week that Family Main Meals Consist of Foods Classified as Take-out or Packaged Ready-to-eat Items and Food Cooked at Home from Scratch

Response	Frequency	Percent	Cumulative percent
Take-out food or packaged ready-to-eat items			
Never	6	9.4	9.4
1-2 times	33	51.6	61.0
3-4 times	19	29.7	90.7
5-7 times	5	7.8	98.4
Total (*N*)	63	98.4	
Missing	1	1.6	
Total (*N*)	64	100.0	
Food cooked at home, primarily "from scratch"			
Never	1	1.6	1.6
1-2 times	11	17.2	18.8
3-4 times	18	28.1	46.9
5-7 times	32	50.0	96.9
Total (*N*)	62	96.9	
Missing	2	3.1	
Total (*N*)	64	100.0	

Note. Frequency values represent *n*.

Family Meal Frequency

To investigate the current family meal routines and behaviors of the target audience, the survey included questions about family meal frequency, where families usually eat the main meal, and whether the television is on during family meals. Survey responses indicated that, on average, most or all of the people in the family in 40.6% (n = 26) of the respondents' families eat the main meal together in the same place at the same time seven times per week (Figure 1). In contrast, 7.8% (n = 5) respondents reported that the whole family usually eats the main meal together one to two times per week.

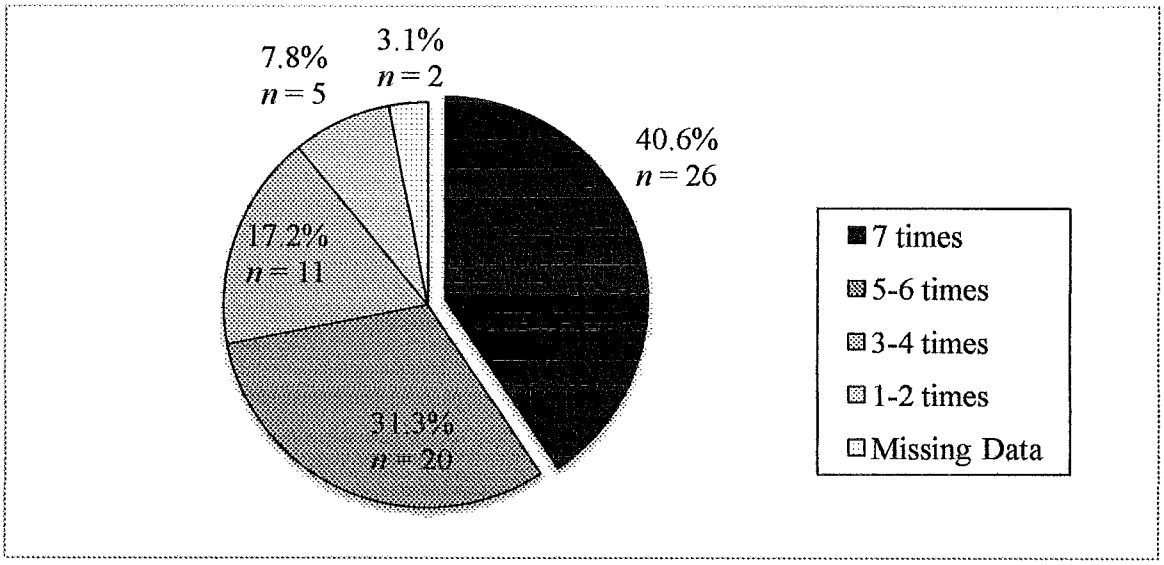


Figure 1. Average number of times per week that most or all family members eat the main meal together, in the same place and at the same time (N = 64).

Family Meal Routines

Survey respondents were asked to identify which meal, breakfast, lunch, or dinner, is considered the family's main meal when it is most likely that most of the family members eat at home and eat together. The option "Dinner/supper" was identified

by 92.2% (n = 59) as the main meal. Lunch and breakfast were identified by 4.7% (n = 3) and 3.1% (n = 2), respectfully, as the main meal by the respondents.

Respondents were asked to identify how many times per week their families eat the main meal of the day outside of the home, at places such as sit-down restaurants, fast food restaurants, and cafeterias. On average, 92.1% (n = 58) of the respondents estimated that most or all of the people in their family eat the main meal outside of the home two or fewer times per week. Five respondents (7.8%) indicated that main meals tend to occur outside of the home three to four times per week. One individual (1.6%) did not provide a response and no respondents (n = 0) reported that main meals were consumed outside of the home five or more times per week.

To capture information about important characteristics of the Family Table Project target audience's family meals at home, survey respondents were asked, "When the family eats at home, where in the house do people in your family usually eat the main meal?" Main meals usually take place in the kitchen for 64.1% (n =41) of the sample. The dining room was chosen as the place the family usually eats the main meal by 10.9% (n = 7) and the living room was selected by 15.6% (n =10) of the respondents. Five (7.8%) respondents reported that the family usually eats the main meal in multiple places in the home. One individual did not provide a response.

Respondents were asked to estimate the number of times per week that the television is on during the family's main meal. It was reported that the television was never on during main meals by 31.3% (n = 20) of the sample. Additionally, 34.4% (n = 22) of respondents reported that the television was on one to two times per week during

main meals. Five to seven times per week, the television was reported to be on during the main meal by 18.8% ($n = 12$) of the individuals who completed the survey.

Interest in Making Changes to Family Meal Routines

Finally, the Family Table Project survey was also designed to assess the respondents' interest in helping their family make specific changes to their typical family mealtime routines. Figure 2 displays the five options that were provided on the survey and the number of times that each option was checked by respondents. With regards to these five options, the greatest interest (73.4%) was expressed for eating healthier food. The two responses that were written in to explain the choice of "Other" were "Getting kids to eat more vegetables" and "Time to make."

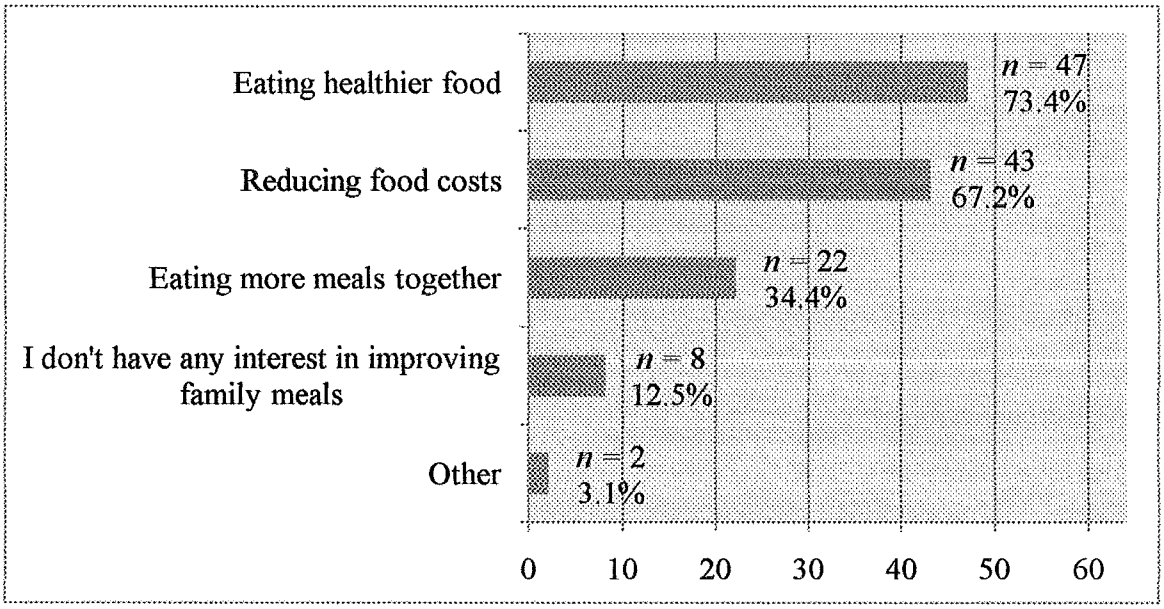


Figure 2. Survey respondents' interest in making specified changes with respect to family meals. Respondents were able to select more than one choice ($N = 64$).

A sub-question was posed to those who indicated an interest in helping their family to eat healthier food. Table 5 displays the five options and the number of individuals that indicated interest in each option. The option "Eat more fruits and vegetables" was selected by 65.6% ($n = 42$). The respondent who chose "Other" wrote in the response "Diabetic approved."

Table 5

Respondents' Interest in Helping Family Make Specific Changes with Regards to Eating Healthier

Response	Frequency	Percent
Eat more fruits and vegetables	42	65.6
Eat less unhealthy fat	34	53.1
Eat more whole grains	27	42.2
Not interested in making changes	8	12.5
Other	1	1.6

Note. Frequency values represent *n*. Respondents were able to select more than one choice ($N = 64$).

To determine which of the five options that was of greatest importance with respect to family meals, the survey asked respondents to identify the change that was most important (Figure 3). "Eating healthier food" was chosen by 27 respondents, representing 42.2% of the sample. "Widening meal ideas" was written in for the one "Other" response. One respondent failed to identify the most important change and six respondents chose multiple options and therefore were not included in the results represented in Figure 3.

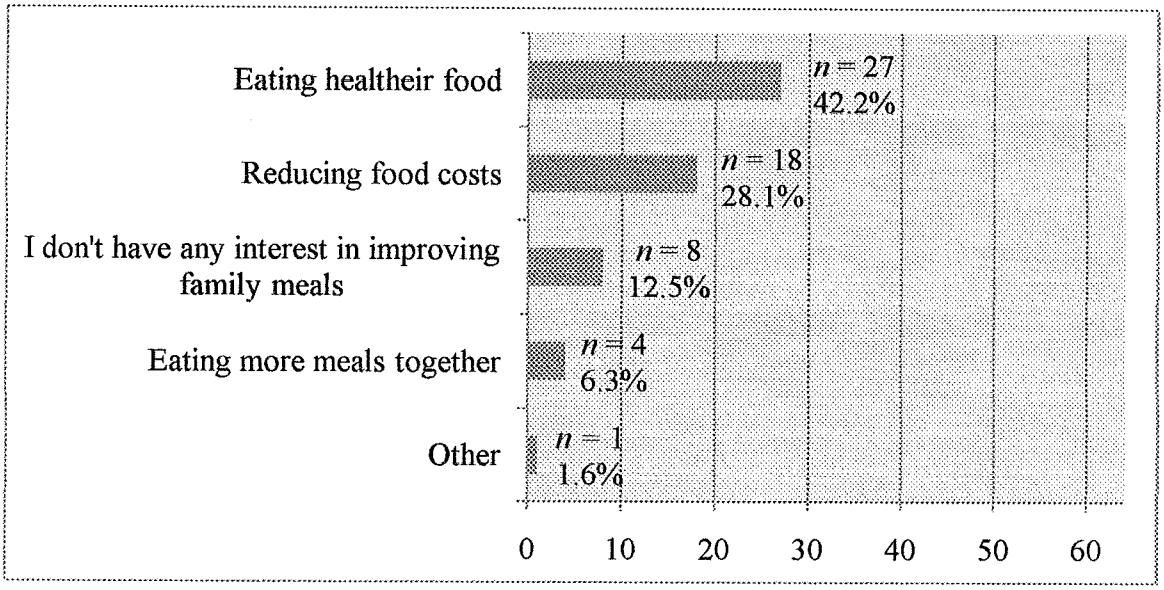


Figure 3. Survey respondents' identification of the most important change to improve their family meals ($N = 58$).

Family Table Project Focus Group Findings

The second phase of this formative research was conducted through three focus groups consisting of 7 to 12 participants each. A total sample of 27 adults included 25 females and two males who were recruited via the Family Table Project survey. All participants met the inclusion criteria of being 18 years of age or older and living with at least one dependent minor and met the income eligibility requirements for the WIC or Head Start federal assistance programs.

The frequency of responses to the survey question "What meal, breakfast, lunch, or dinner/supper, would you say is typically your family's main meal or the meal when it is most likely for most of the family members to eat at home and eat together?" indicated that the main meal for most families in this sample was dinner. Therefore, it was determined prior to the focus group sessions that the Family Table Project meal preparation sessions would revolve around menu items that families would typically

consume in the evening. During the focus group sessions, it was explained that while not all families may consider their main meal to be at typical dinner/supper times, the terms "dinner" and "dinner time" would be used to imply the main meal for the family.

The three main themes that are particularly relevant to the development of the Family Table Project that emerged from the focus group sessions are: (a) approaches to family meals, (b) standards for and barriers to "ideal" family meals, and (c) direct input about program components will be elaborated and supported by statements made by participants from all three sessions.

Approaches to Family Meals

Focus group discussions generated in-depth conversations about what family meals look like in the participants' homes. Details about typical family meal routines provided insight into families' mealtime environment. Descriptions of strategies that are used to feed children offered indications about participants' feeding styles.

Family meal routines. Participants were prompted to think about their family's typical approach to dinner. The question "What is dinner time like for your family?" elicited responses about the mealtime environment including, "it's pretty chaotic at my house" and "everyone is jumping around." Alternatively, responses such as "we sit as a family; we know it's quiet time" were also offered.

Positive comments were made about aspects of current routines that highlighted the frequency of gathering together for meals in some of the participants' families. One participant noted that "It's a family rule, everybody's home and at the table at supper time." Opinions about what typically happens when the family is gathered together at the dinner table were also identified as a positive aspect, including the interactions that occur

between family members. Family meals, for many participants, facilitated a sense of family connectedness. When asked what was going well in the home around dinner time, one participant described a routine she initiated with her family to facilitate conversation: "We are sitting together, they can say what they want to say, or share what they want to share. We actually go around the table and share one good thing and bad thing about the day." Family meal routines varied due to various family characteristics, such as family size, children's ages, and parents' work schedules. However, it was evident that frequent family meals were an important routine to maintain by most of the participants.

Also of significance, participants regarded the fact that the television is not typically on during family meals as a positive feature of their current family meal routines. One strength of a participant's current family meal routine was explained: "Another thing that I am always proud of is, that we always eat every single meal together. At the table. There is no TV watching, the TV is turned off. The radio is turned off." Another respondent acknowledged an important change in the mealtime environment after the television was turned off during meals: "Supper time is in the kitchen at the table now and it seems to be working a whole lot better, like we can talk instead of the staring at the TV . . . We're actually paying attention more to eating." These statements identified the fact that some participants have actively attempted to improve their family mealtime environment and have observed improvements in children's eating patterns after removing a source of distraction.

Feeding styles. Focus group interview questions did not directly ask about parental feeding styles; however, strategies used during family meals permeated focus group discussions multiple times. For example, strategies for serving food to children

were described. One participant noted that the atmosphere around the dinner table with young children was chaotic and therefore, they must serve plates to the children, rather than children choosing what to eat:

> We don't put things in the middle of the table because kids will jump on the table and we are afraid of them getting burned. So it's each kid gets their serving, and we usually put it on the plate so they don't have an option to choose what they want. So, they have to try everything. Then they get seconds of what they want.

Participants also described challenges at the dinner table, particularly challenges associated with children being "fussy." Various strategies for dealing with these challenges were provided. One mother explained: "At our house we can't have anything to drink while we eat. We have to wait until we are done or halfway done because otherwise our daughter . . . likes to drink and tends not to finish her food." Some confessed that they often gave in to children who refused to eat what was served and prepared alternative meals. Conversely, one mother related previous experiences where she had forced children to stay at the table until the dinner plates were clean: "They sit there and refuse to eat it. They will throw it. They've actually had to sit at the table for almost two hours until they give in and eat it. Then they want more."

In addition to the current feeding strategies that were being taken, parents disclosed a lack of confidence in their knowledge about how and what to appropriately feed children. This lack of knowledge about what types of food are appropriate for young children was illustrated by a participant's comment:

> I'd like to find more kid-friendly meals. Cause I've got a little kid, and little kids can't hardly chew some of the stuff. Like today we had apples and carrots and he

> can hardly bite them. So it's like he has problem trying to eat the stuff that his older brother can eat.

In addition, apprehension about how much one should be feeding a young child was expressed:

> Seems like he eats a lot sometimes, actually every day. I feel like I feed the younger one more than the older. I don't know if that's alright or if he's going to get real fat or something. I don't know.

Comments such as these identified variations in the levels of control and responsiveness that are exercised through participants' feeding strategies, along with specific concerns about feeding young children in order to provide proper nutrition.

Standards and Barriers for Ideal Family Meals

Perceived ideals. During the discussions, participants offered opinions and beliefs about what an ideal family meal would look like in their home. An environment that fostered family connectedness was a common ideal expressed by participants. The inclusion of healthy foods that every family member was willing to consume was repeatedly identified as a feature of an ideal family meal, as well. When asked to identify things that participants would like to change in order to improve their current family meal routines, many stated that they would like to be more prepared and organized. Being able to plan menus one week in advance was suggested many times. One participant response highlighted many of the ideals that emerged via analysis of the focus group data:

> At our family meals, what I like, and when I feel just really good . . . is when you've got your food prepared, when you've got food that makes you feel good

after you've eaten it. You know . . . that this was a well-balanced meal. And your kids ate just fine.

After acknowledging what ideal family meals would entail, discussions turned to focus on the barriers that impede the implementation of these standards. The most common barriers identified by participants were (a) children with selective food preferences (described as picky eaters), (b) lack of confidence in cooking skills, (c) lack of time for food preparation, and (d) economic constraints.

Picky eaters. Children with selected preferences for a limited variety of foods were labeled as "picky eaters" and were depicted to present challenges for the incorporation of healthy foods at family meals. As described by one participant: "At my house, I have a picky one. He is teeny-tiny, doesn't eat a whole lot and he doesn't like vegetables, so we eat a lot of junky kind of stuff, just to get him to eat something . . ." Participants also described phases of food preferences that young children were experiencing, such as, "He is just very picky, he won't eat meat lately. And I don't know why. He used to when he was little, but not anymore" as challenges to planning balanced meals that would please all family members.

During a segment of the discussion where participants were expressing frustration about their children being picky eaters, one participant noted: "They say you have to introduce it over 25 times to realize if the kid likes it or not." Focus group participants discussed techniques that may be used to encourage picky eaters to consume more vegetables. In an effort to probe discussion, the focus group facilitator described two approaches that could be taken to include more vegetables in family meals. One approach would be to learn different ways to prepare the vegetable in a way that was appetizing so

that, after repeated exposures the child would develop taste preferences for the food. The second approach would include disguising the food of interest into mixed dishes, or in other words, "sneaking vegetables in." When asked which approach was preferred, the consensus of the group was summarized by one participant who said, "I mean, ideally I would want my kids to learn that they should eat it cause it's good for them. But, if they absolutely wouldn't, I would sneak it, too."

Cooking skills. The barrier of having to deal with picky eaters and a lack of confidence in cooking abilities tended to overlap during focus group discussions. Some participants described their belief that foods generally considered convenience foods are easier to make and are preferred by their children. One parent explained: "That's the problem. Everything I prepare is pre-packaged, not good. Not what I should be feeding my kids, but it's easy and it's simple, and they'll eat it. Yeah, they'll eat it." In addition, participants rationalized that their meals frequently consist of convenience foods as a result of the perception that they lacked adequate or appropriate skills to prepare anything other than these foods. As stated by one participant: "Like I said, I can't cook . . . . Mainly we live on hamburger helper, tuna helper, chicken helper, chicken, just easy stuff that I know what I'm doing." Similarly, when it came to trying new recipes, low levels of self-efficacy were conveyed:

> I'd like to learn like different kinds of meals, instead of making the same kind of dinners over and over and over....you look in a cookbook and read 'em and stuff, but it's like how do you prepare them if it's your first time? You're always worried it's not going to turn out.

While an interest in learning new food preparation skills was expressed in focus group discussions, a lack of confidence in abilities appeared to have inhibited many of the participants from attempting new cooking techniques.

Time. A barrier that was evident throughout the discussions was the lack of time to plan and prepare foods at home that participants considered as healthy options. Balancing work or school schedules with families appeared to be a challenge that deterred parents from preparing family meals from healthy foods at home. One single mother explained:

> For me, being a single mom, and going to school, there are two nights a week that I don't get my boy until quarter to five at night. And so if I don't have dinner planned, or dinner in the crock pot ahead of time, it's drive thru at McDonalds, because I can get him a happy meal for three bucks. And I can find three bucks in quarters lying around my house if I need to.

Furthermore, the use of convenience foods was rationalized due to the demands of young children in the home:

> We always buy the pre-made stuff that's really unhealthy and really cheap. Cause I have a three-month old, you know, so in order to get her to stop screaming long enough to get the one-year old settled down to make a meal is, are you crazy? It doesn't happen. Never.

In these representative statements about the challenges that a lack of time presents to preparing healthy foods for family meals, participants also expressed a sense of guilt for choosing convenience foods. Despite the desire to make healthier choices, the barrier of time caused parents with good intentions to opt for convenience over nutrition.

Economic constraints. Financial constraints emerged as the final significant barrier to incorporating healthy foods in family meals. One opinion was stated clearly by a participant when she stated, "It's expensive to eat healthy." This perception was supported by others, as indicated by the response, "We buy lots of junk foods, or boxed foods, frozen pizzas, because it is a few dollars and can feed everybody."

When the topic of economic constraints came forth in the conversations, the facilitator asked, "How do you deal with the expense of food? What choices do you make because of the cost of food?" This question elicited many coping strategies and opinions from the participants. One representative response that describes coping strategies used by participants was:

> They have those boxes that come with noodles and the canned stuff. Then they have the freezer ones that have a meat, some kind of potato, and some kind of vegetable in it. Which is really good, too. They're like a buck fifty . . . . Technically, you get everything you need right there.

Another exceptionally powerful statement highlighted the fact that participants were using more than one food assistance program to obtain food throughout the month, and yet describes a situation of food insecurity:

> My food stamps is all I have for food and that's it. And to make it stretch, it's just, I don't, it doesn't stretch. So, a lot of times I end up at the food pantry, you know, and I do what I have to do to get food. Sometimes I have to go eat with friends, you know, "Oh, well I'll come over for dinner if you don't mind", and go have dinner. And I just have to do what I have to do to get my kids fed.

A final representative quote illustrates the potential impact that financial constraints may have on the overall dietary intake of children from low-income households:

> When I'm running low on my food stamps . . . I'll cut out a lot of like, if I can't afford the milk, then I'll buy a gallon, but then we water it down. I mean, even if its skim milk, we're watering it down just to make it last longer . . . . We'll just forget about cheese for awhile. And fruits and vegetables are another hard expensive thing, so a lot of it comes from like the canned food.

In contrast to the statements noted above, one participant described significant changes that have recently been made in the diets of her family members due to health concerns of one child. When another participant asked "Is it more expensive?" she replied "No, nope. If you shop and shop smart, no. You know your whole wheat pastas and all that. I mean, it's the same price." Another exceptional case was evident when one participant described her technique for feeding a large family despite limited food budgets:

> We are really starting bulk buying. And it's a lot less expensive. Lot less expensive . . . . We even have found the opportunities to find organic bulk buys that are cheaper than the vegetables in the stores, that aren't organic.

Additional personal techniques for attaining foods in times of financial constraints were offered during the focus group sessions such as making lists and only buying food items from the list, comparison shopping, buying "quick-to-sell" packages of meat, purchasing generic store brand items opposed to other items carrying a brand name, and choosing to shop at cheaper retail food stores.

Participant Input on the Program Design

The second half of each session focused on generating input from the participants about how the Family Table Project meal preparation sessions should be designed. A brief description of the overall objectives and tentative plan for the program was included on the focus group discussion guide (Appendix F). Following this description, participants offered their opinions about components that the program would need to include in order to meet their needs and interests.

Practical tips. Education about budgeting, eating healthy, and grocery shopping was described as desirable, however strong statements supported the idea that while nutrition professionals can impart all kinds of advice, the advice would be most, and perhaps only, useful when conveyed as practical tips. One participant related frustration with nutrition education and described how messages did not seem to be tailored to people facing challenges such as those encountered by low-income parents:

> You know, cause you hear these little tips...but sometimes putting them into practice...I don't know...I feel like some of the tips out there are for people who have endless budgets and endless time to do things. Where I am like, no, no, no, no . . . You're not understanding. I have 20 minutes to shop with this screaming four-year old and I have 20 minutes to get dinner on the table. So, I think it's a combination of the desire, but then, okay now you have to give me some practical tips.

Additionally, many participants currently interact with nutrition professionals on a regular basis through federal assistance programs. A gap in the effectiveness of nutrition education was perceived by a few participants who shared their frustrations with the

information they received through these programs. One participant described her desire for information above and beyond the basic dietary recommendations:

> Well, you know, you have programs like WIC. WIC is great. We love it. But the fact of the matter is that when you take your kids to WIC and the nutritionist sits down, she's like 'You need to eat more meat. You need to eat more vegetables.' And it's like, 'Well have you gone to the grocery store? The meat is the most expensive thing there!' WIC is supposed to help me because I don't make a lot of money. But, yet, who's going to pay for my meat? You know, yeah, I can go to places...and get bulk, but you know how do you store it? How do you prepare it?

As exemplified by this participant, rather than focusing on *what* participants should be feeding their families, education about *how* to help their families eat healthfully is important to the Family Table Project's target audience.

Cooking skills. An interest in learning new cooking skills and finding healthy recipes was explicitly expressed by participants through statements such as, "I'd like to learn actually how to make different stuff. Besides . . . the boxed meals" and ". . . I want to learn how to cook more things with fruits and vegetables." Participants who did appear to have confidence in their own cooking skills also expressed an interest in learning new preparation techniques or recipes through comments such as, "We cook good things, but it is usually just the same thing, just in rotation almost. Maybe more options to learn how to cook different things?" Additional interests included learning how to use different spices and learning how to cook ethnically diverse dishes in order to try new flavors. Participants welcomed the idea of cooking in bulk and offered specific ideas for the types of foods they would like to make at the meal preparation sessions.

Various ideas about what the meal preparation sessions would involve were also offered, including descriptions such as an assembly line method and stations that participants would rotate between. The importance of being involved with the food preparation was conveyed through statements such as: "It would be nice to have somebody who knows how to do it; That can sit there and kind of guide you through it while you do it. So you feel more comfortable going home doing it." Such suggestions indicated that participants' interest for a hands-on approach to the meal preparation component of sessions in order increase confidence while learning new cooking techniques.

Social interactions. A recurring theme that emerged via analysis of focus group data was a desire for social and group interactions at the meal preparation sessions that would present opportunities for parents to share knowledge and experiences with each other. This appeal was evidenced through responses:

> Another thing that would be nice, too, is if we went to these meetings, that we could hear what, first-hand, um, let's say she, how she got a great deal this week. You know, I went this, and I did this, and it worked....we need to hear some experiences of somebody who actually did it and how they did it, you know? And go out and do it!

Additionally, one participant offered a suggestion for incorporating group interactions at the end of the meal preparation sessions – ". . . maybe at the end when we're packaging everything up, we can talk about it a little more, or be like 'hey, how do I get my kids to eat eggplant?' . . . just generally share . . . ." The importance of social interactions with

other parents was also emphasized by the group dynamics and the sharing of information that occurred at focus group sessions.

In conclusion, focus group participants offered multiple suggestions to consider when designing the Family Table Project shared meal preparation and nutrition education sessions. In order to address the target audiences' interest and needs, participants felt that the sessions will need to offer practical tips for healthy eating and opportunities to increase food preparation skills while facilitating group interactions through which parents can share personal experiences and knowledge.

Summary

Results from both phases of this formative research highlighted the needs and interests revolving around food and family meals provided by a sample of the target audience for the Family Table Project. The following chapter will provide a discussion of these findings in comparison to relative data from published literature.

Chapter Five: Discussion

This formative research was conducted through a survey and three focus group discussions with parents and caregivers from low-income households in Barron County, Wisconsin. Results from this research has informed the design of a family-centered shared meal preparation and nutrition education pilot program, titled the Family Table Project. Chapter five will begin with an acknowledgement of limitations of this research. Then, results will be compared to findings from peer-reviewed research and conclusions will be drawn. Finally, the chapter will conclude with recommendations for the Family Table Project and further research.

Limitations

As detailed in chapter three, the limitations of the research methodology include the lack of validation of the survey instrument and the subjective nature of qualitative data analysis. Most importantly, when considering the conclusions from this research it is important to acknowledge that the relatively small sample was purposively recruited from a rural, agricultural-based county in Northwestern Wisconsin for this community partnership-based pilot project. It is unlikely that the sample from this county is representative of all sociodemographic characteristics of low-income families from counties throughout Wisconsin. In addition, all survey respondents and focus group participants were actively participating in federal assistance programs, indicating a level of motivation and readiness to seek health, nutritional, educational, and other social services. The results of this cross-sectional study cannot be extended to all low-income populations.

Conclusions: Family Meal Routines and Behaviors

The first question that this research sought to answer was "What are the current approaches to food attainment and meal preparation, frequency of family meals, and family meal routines of the Family Table Project's target audience?" Results that are of particular interest with regards to the development of program components relate to meal preparation techniques, family meal frequency, television viewing during meals, and parental feeding styles.

Meal preparation. Half of the Family Table Project survey respondents indicated that their family's main meal consists of foods cooked at home, primarily from scratch five to seven times per week. This percentage is comparable to data reported by McLaughlin, Tarasuk, and Kreiger (2003) through an examination of at-home food preparation activity of low-income mothers. While the Family Table Project survey described from scratch as items that are not pre-packaged or pre-made foods, these authors defined at-home food preparation from scratch to imply that a "dish that included multiple ingredients and entailed the application of one or more standard cooking techniques" (p. 1508, McLaughlin et al., 2003). Data collected through three nonconsecutive 24-hour recalls indicated that foods prepared from scratch were consumed by 57% of the women on all three days, 26% on two days, and 14% on only one of the three days (McLaughlin et al., 2003).

Variations in the levels of cooking skills expressed during the Family Table Project focus group discussions were consistent with the survey data. Many participants described higher levels of cooking abilities and frequency of preparing meals from multiple whole ingredients using a variety of cooking techniques. However, lower levels

of cooking abilities were also described, with a number of focus group participants relating their frequent use of pre-packaged convenience foods in family meals as a result of their perceived lack of cooking skills.

Family meal frequency. Results from the Family Table Project survey indicated that, on average, most or all of the people in 40.6% of the respondents' families eat the main meal together in the same place at the same time seven times per week. This number is comparable to results from the 2007 National Survey of Children's Health (NSCH), a survey conducted with a large random sample of households in the United States. Responses to the NSCH survey question, "During the past week, on how many days did all the family members who live in the household eat a meal together?" indicated that 43.9% of children up to 17 years of age in the state of Wisconsin typically eat meals with all members of their family seven times per week (Child and Adolescent Health Measurement Initiative, 2007). According to the 2007 NSCH data, more frequent meals occur with lower household income levels. Meals where all family members in the household are present occur in 55.2% of households with income between 0-99% of the federal poverty level, while 51.3%, 39.6%, and 39.2% of responding families in Wisconsin with incomes 100-199%, 200-399%, and 400% or greater than the federal poverty level, respectively, engage in daily family meals (Child and Adolescent Health Measurement Initiative, 2007). National data on family meal frequency and income levels are consistent with the trends seen in Wisconsin.

In contrast to the results reported through the 2007 NSCH, research examining the associations between family meal patterns and sociodemographic characteristics has indicated that a positive relationship between socioeconomic status and family meal

frequency may exist (Neumark-Sztainer et al., 2003). This relationship was also explored in a recent study that compared the frequency of family meals between food-secure and food-insecure adolescents (Widome, Neumark-Sztainer, Hannan, Haines, & Story, 2009). Authors observed that food-insecure youths were found to be less likely to eat family meals and hypothesized that this association may exist due to irregular food availability or due to the interference of family members' working hours (Widome et al., 2009). While the barrier of not having any food available in the home for children to consume did not emerge through Family Table Project focus groups, parents' work hours were frequently identified as a barrier to family meals by participants.

Television viewing. Coon et al. (2001) examined the presence of television during meals and reported that televisions were more likely to be on during meals in households with lower incomes, less educated mothers, or single parents. In the current study, an analysis was not conducted to relate education or the number of adults in the household with the frequency of television viewing during meals. However, results from the Family Table Project survey sample of low-income adults indicated fairly low rates of television viewing during family meals with 31.3% of the sample reporting that the television was never on during family meals. Additionally, focus group participants offered information that was consistent with this data.

Parental feeding styles. Focus group participants described strategies for introducing new foods to children and for feeding children considered to be picky eaters. Descriptions of forcing children to sit at the dinner table until their plates were clean suggested that some parents may be taking an authoritarian approach to feeding. Others described cooking various types of food to please children, despite parents' interest in

introducing healthy foods in their diets, depicting permissive styles of feeding. Parental feeding styles, as characterized by control and responsiveness, may have potential consequences on children's dietary patterns (Birch & Fisher, 1998; Jain et al., 2001; Lytle et al., 2003; Patrick et al., 2005; Wardle et al., 2005). It appears as though some members of the Family Table Project's target audience may not be using approaches that are hypothesized to have positive effect on children's eating behaviors.

The reported family meal routines and behaviors varied amongst survey respondents and focus group participants in this study. However, relevant conclusions can be drawn and considered in the development of the Family Table Project shared meal preparation and nutrition education sessions. First, meal preparation techniques used by members of the target audience range from minimal preparation through the use of convenience, packaged foods to preparing menu items from whole foods, or from scratch. Second, results from this research indicate that the current family meal routines of a large portion of the target audience include frequent family meals where most or all of the family members are present and a relatively low frequency of television viewing during family meals. These two features, according to peer-reviewed research, are supportive of healthful eating behaviors (Boutelle et al., 2003; Coon et al., 2001; Fitzpatrick et al., 2007; Gillman et al., 2000; Neumark-Sztainer et al., 2003; Videon & Manning, 2003). Third, the reported practices currently being used by some members of the target audience and the influence of parental feeding styles on children's eating patterns may not be conducive for the development of children's healthful eating habits.

Conclusions: Influences on Food Choices

The second question that this research attempted to answer was "What are the perceived barriers, if any, of low-income families in Barron County, Wisconsin to attaining and consuming nutritious foods and eating meals as a family?" Lack of time and perceived benefits of convenience foods were found to act as barriers to healthful eating by focus group participants. This is comparable to conclusions made by others (Chang, et al., 2008; Devine et al., 2006; Eickenberry & Smith, 2004; Reicks et al., 1994). However, in the present study, perceptions regarding skills and abilities to prepare healthful foods were also found to deter low-income parents from including a variety of fresh, whole foods in family meals.

Information that was drawn from focus group discussions also highlighted influences on food choices made by members of the Family Table Project's target audience. Similar to conclusions of research conducted with a large, national sample, taste preferences and the cost of food are significant, and often more important, influences on dietary choices made by members of the target audience (Glanz et al., 1998). It can be concluded that in order to encourage healthful dietary behaviors and frequent family meals, the barriers of time and convenience and influences of taste and costs need to be addressed.

Conclusions: Participant Input on Program Design

The final question that this research addressed was "What specific components does the Family Table Project need to include in order to address the needs and interests of its target audience?" Findings suggest the need and interest for nutrition education that

is provided through practical tips, opportunities for social interactions, and hands-on learning activities.

Practical tips. Requests for educational topics such as appropriate cooking temperatures for meats, using whole wheat flour in breads, and cooking with seasonal fresh fruits and vegetables indicated the need and interest for information related to food safety and healthful cooking techniques through focus group sessions. Additionally, of the 73.4% of survey respondents that indicated an interest in eating healthier food, 65.6% indicated an interest in making changes to help their family eat more fruits and vegetables. However, as stated by one focus group participant, "you have to give me some practical tips." Rather than providing information through traditional modes of education, participants suggested that a method of nutrition education that incorporates the topics of interest and conveys the messages through easy and realistic tips would be most beneficial.

Hands-on learning. In addition to practical tips, focus group participants informed researchers that the shared meal preparation sessions would be most effective in teaching new cooking skills and maintaining participants' interest in the program if opportunities for hands-on learning were offered. Experiential learning activities, including hands-on food demonstrations, preparation, and sampling, are recommended for nutrition education programs that seek to enhance self-efficacy (Chaudhary & Kreiger, 2007; Contento, 2007; Koplan et al., 2005). Programs that have included these kinds of experiences have documented efficacy in advancing cooking skills, increasing participants' consumption of healthful foods, and maintaining participation rates (Brown & Hermann, 2005; Meloche, 2003; Michaud et al., 2007; Woodson et al., 2005).

Social interactions. Analyses of the Family Table Project focus group sessions provided evidence for participants' desire for social interactions with opportunities to share experiences and knowledge with other group members. This finding is comparable to research that has reported enjoyment of social interaction with other participants as an important motive for low-income adults to participate in community nutrition education programs (Devine et al., 2006). Facilitated group discussions are an interactive method that can be used to encourage active social interactions while delivering nutrition education (New Mexico WIC Program, 1994). Previous nutrition intervention programs have documented the efficacy of facilitated group discussions paired with positive experiences with food in social settings in promoting healthful food choices in low-income adults (Devine et al., 2005). Therefore, this approach may also be an effective component to implement in the Family Table Project meal preparation and nutrition education sessions.

In conclusion, input from members of the target audience supports the importance of incorporating interactive methods of teaching cooking skills and delivering nutrition education during the shared meal preparation sessions. In addition to the significant interest for practical tips, hands-on learning, and social interaction expressed by focus group participants, research has documented the potential efficacy of these program components.

Recommendations: Program Design

In order to create programs that facilitate sustained healthful behavior change, it is recommended that "we should create environments . . . that make it convenient, attractive, and economical to make healthful choices, and then motivate and educate

people about these choices" (p. 482, Sallis et al., 2008). Accordingly, researchers sought to gain insight on the current practices and influences on family meals and food choices made by low-income families in Barron County, Wisconsin in order to determine what the Family Table Project shared meal preparation and nutrition education sessions would need to include in order to be perceived as a convenient, attractive, and economical way to feed families. Conclusions that were drawn from this investigation of the research questions and peer-reviewed literature on related topics lend to the following recommendations:

- In order to address the barriers and influences perceived by members of the target audience with regard to healthful eating, the Family Table Project meal preparation sessions should be marketed as a tool to help families manage a limited grocery budget and prepare fresh, appetizing, healthy meals in a limited amount of time.
- Meal preparation sessions need to include hands-on learning that provides the participants with opportunities for experiential learning. Such mastery experiences will promote the enhancement of self-efficacy for sustained behavior change.
- An interactive approach of delivering nutrition education that facilitates group interactions in a positive social setting should be taken. The use of facilitated group discussions should be explored.
- In addition to addressing the specific education topics of interest to the target audience, important issues such as parental feeding styles that promote the

development of lifelong healthful dietary behaviors in children, and therefore potentially prevent obesity and related chronic diseases should be included.

Recommendations: Further Research

This formative research provides recommendations for the development of the Family Table Project's shared meal preparation and nutrition education sessions from a participant's point of view. Additional research will need to be conducted to determine the effectiveness of this program in improving the self-efficacy, dietary intake, and use of locally grown foods by low-income families in Barron County, Wisconsin. Furthermore, investigations will need to be conducted in order to determine how the program can be financially sustainable.

References

Abusabha, R., Achterberg, C., McKenzie, J., & Torres, D. (1998). Evaluation of nutrition education in a supplemental food and nutrition program in New Mexico. *Journal of Family and Consumer Sciences, 90*(4), 98-104.

Abusabha, R., Peacock, J., & Achterberg, C. (1999). How to make nutrition education more meaningful through facilitated group discussions. *Journal of the American Dietetic Association, 99*(1), 72-76.

Baranowski, T., & Hearn, M. D. (1997). Health behavior interventions with families. In Gochman, D. S. (Ed.), *Handbook of health behavior research: Vol. 4 Relevance for professionals and issues for the future* (pp. 303-323). New York: Plenum Press.

Birch, L. L., & Fisher, J. O. (1998). Development of eating behaviors among children and adolescents. *Pediatrics, 101*(3), 539-549.

Boutelle, K. N., Birnbaum, A. S., Lytle, L. A., Murray, D. M., & Story, M. (2003). Associations between perceived family meal environment and parent intake of fruit, vegetables, and fat. *Journal of Nutrition Education and Behavior, 35*(1), 24-29.

Brown, B. J., & Hermann, J. R. (2005). Cooking classes increase fruit and vegetable intake and food safety behaviors in youth and adults. *Journal of Nutrition Education and Behavior, 37*(2), 104-105.

Center for Disease Control and Prevention. (2009a). *Defining childhood overweight and obesity*. Retrieved June 22, 2009, from http://www.cdc.gov/obesity/childhood/defining.html

Center for Disease Control and Prevention. (2009b). *Defining overweight and obesity.* Retrieved June 22, 2009, from http://www.cdc.gov/obesity/defining.html

Chang, M., Baumann, L. C., Nitzke, S., & Brown, R. L. (2005). Predictors of fat intake behavior differ between normal-weight and obese WIC mothers. *American Journal of Health Promotion, 19*(4), 269-277.

Chang, M., Nitzke, S., Guilford, E., Adair, C., & Hazard, D. L. (2008). Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers. *Journal of the American Dietetic Association, 108*(6), 1023-1028.

Chaudhary, N., & Kreiger, N. (2007). Nutrition and physical activity interventions for low-income populations. *Canadian Journal of Dietetic Practice and Research, 68*(4), 201-206.

Child and Adolescent Health Measurement Initiative. (2007). National Survey of Children's Health, Data Resource Center for Child and Adolescent Health. Retrieved June 10, 2009, from www.nschdata.org

Cooke, L., Wardle, J., & Gibson, E. L. (2003). Relationship between parenteral report of food neophobia and everyday food consumption in 2-6-year-old children. *Appetite, 41*(2), 205-206.

Cooke, L. J., Wardle, J., Gibson, E. L., Sapochinik, M., Sheiham, A., & Lawson, M. (2004). Demographic, familial, and trait predictors of fruit and vegetable consumption by pre-school children. *Public Health Nutrition, 7*(2), 295-302.

Contento, I. R. (2007). *Nutrition education: Linking research, theory, and practice.* Sudbury, MA: Jones and Bartlett Publishers.

Coon, K. A., Goldberg, J., Rogers, B. L., & Tucker, K. L. (2001). Relationships between use of television during meals and children's food consumption patterns. *Pediatrics, 107*(1), E7.

Cullen, K. W., Baranowski, T., Owens, E., Marsh, T., Rittenberry, L., & Moor, C. (2003). Availability, accessibility, and preferences for fruit, 100% fruit juice, and vegetables influence children's dietary behavior. *Health Education and Behavior, 30*(5), 615-626.

Devine, C. M., Farrell, T. J., & Hartman, R. (2005). Sisters in health: Experiential program emphasizing social interaction increases fruit and vegetable intake among low-income adults. *Journal of Nutrition Education and Behavior, 37*(5), 265-270.

Devine, C. M., Jastran, M., Jabs, J., Wethington, E., Farell, T. J., & Bisogni, C. A. (2006). "A lot of sacrifices:" Work-family spillover and the food choice coping strategies of low-wage employed parents. *Social Science and Medicine, 63*(10), 2591-2603.

Dietz, W. H. (1995). Does hunger cause obesity? *Pediatrics, 95*(5), 766-767.

Drewnowski, A., & Specter, S. E. (2004). Poverty and obesity: The role of energy density and energy costs. *American Journal of Clinical Nutrition, 79*(1), 6-16.

Eikenberry, N., & Smith, C. (2004). Healthful eating: Perceptions, motivations, barriers, and promoters in low-income Minnesota communities. *Journal of the American Dietetic Association, 104*(7), 1158-1161.

Fisher, J. O., Mitchell, D. C., Smicklas-Wright, H., & Birch, L. L. (2000). Maternal milk consumption predicts the tradeoff between milk and soft drinks in young girls' diets. *Journal of Nutrition, 131*(2), 246-250.

Fisher, J. O., Mitchell, D. C., Smicklas-Wright, H., & Birch, L. L. (2002). Parental influences on young girls' fruit and vegetable, micronutrient, and fat intakes. *Journal of the American Dietetic Association, 102*(1), 58-64.

Fitzpatrick, E., Edmunds, L. S., & Dennison, B. A. (2007). Positive effects of family dinner are undone by television viewing, *Journal of the American Dietetic Association, 107*(4), 666-671.

Food and Nutrition Service, United States Department of Agriculture. (n.d.). *WIC at a glance.* Retrieved June 17, 2009, from http://www.fns.usda.gov/wic/aboutwic/wicataglance.htm

Gillman M. W., Rifas-Shiman, S. L., Frazier, A. L., Rockett, H. R. H., Camargo, C. A., Field, A. E., et al. (2000). Family dinner and diet quality among older children and adolescents. *Archives of Family Medicine, 9*(3), 235-240.

Glanz, K., Basil, M., Maibach, E., Goldberg, J., Snyder, D. (1998). Why Americans eat what they do: Taste, nutrition, cost, convenience, and weight control concerns as influences on food consumption. *Journal of the American Dietetic Association, 98*(10), 1118-1126.

Guthrie, J. F., Lin, B. H., & Frazao, E. (2002). Role of food prepared away from home in the American diet, 1977-78 versus 1994-1996: Changes and consequences. *Journal of Nutrition Education and Behavior, 34*(3), 140-150.

Harris, J. E., Gleason, P. M., Sheean, P. M., Boushey, C., Beto, J. A., & Bruemmer, B. (2009). An introduction to qualitative research for food and nutrition professionals. *Journal of the American Dietetic Association, 109*(1), 80-90.

Havas, S., Treiman, K., Langenberg, P., Ballesteros, M., Anliker, J., & Darmon, D. (1998). Factors associated with fruit and vegetable consumption among women participating in WIC. *Journal of the American Dietetic Association, 98*(10), 1141-1148.

Hearn, M. D., Baranowski, T., Baranowski, J., Doyle, C., Smith, M., Lin, L. S., et al. (1998). Environmental influences on dietary behavior among children: Availability and accessibility of fruits and vegetables enable consumption. *Journal of Health Education, 29*(1), 26-32.

Hubbs-Tait, L., Kennedy, T. S., Page, M. C., Topham, G. L., & Harrist, A. W. (2008). Parental feeding practices predict authoritative, authoritarian, and permissive parenting styles. *Journal of the American Dietetic Association, 108*(7), 1154-1161.

Jain, A., Sherman, S. N., Chamberlin, L. A., Carter, Y., Powers, S. W., & Whitaker, R. C. (2001). Why don't low-income mothers worry about their preschoolers being overweight? *Pediatrics, 107*(5), 1138-1146.

Jetter, K. M., & Cassady, D. L. (2006). The availability and cost of healthier food alternatives. *American Journal of Preventative Medicine, 30*(1), 38-44.

Koplan, J. P., Liverman, C. T., & Kraak, V. I. (Eds.). (2005). *Preventing childhood obesity: Health in the balance.* Washington, DC: National Academies Press.

Kratt, P., Reynolds, K., & Shewchuk, R. (2000). The role of availability as a moderator of family fruit and vegetable consumption. *Health Education and Behavior, 27*(4), 471-482.

Krummel, D. A., Humphries, D., & Tesssaro, I. (2002). Focus groups on cardiovascular health in rural women: Implications for practice. *Journal of Nutrition Education and Behavior, 34*(1), 38-46.

Larson, N. I., Neumark-Sztainer, D., Hannan, P. J., & Story, M. (2007). Family meals during adolescence are associated with higher diet quality and healthful meal patterns during young adulthood. *Journal of the American Dietetic Association, 107* (9), 1502-1510.

Lee, S., & Reickes, M. (2003). Environmental and behavioral factors are associated with the calcium intake of low-income adolescent girls. *Journal of the American Dietetic Association, 103*(11), 1526-1529.

Ludwig, D. S., Peterson, K. E., & Gortmaker, S. L. (2001). Relation between consumption of sugar-sweetened drinks and childhood obesity: A prospective, observational analysis. *Lancet, 357*(9255), 505-508.

Lytle, L. A., Varnell, S., Murray, D. M., Story, M., Perry, C., Birnbaum, A. S., et al. (2003). Predicting adolescents' intake of fruits and vegetables. *Journal of Nutrition Education and Behavior, 35*(4), 170-178.

McAlister, A. L., Perry, C. L., & Parcel, G. S. (2008). How individuals, environments, and health behaviors interact. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior and health education: Theory, research and practice* (pp. 169-188). San Francisco, CA: Jossey-Bass.

McLaughlin, C., Tarasuk, V., & Kreiger, N. (2003). An examination of at-home food preparation activity among low-income, food insecure women. *Journal of the American Dietetic Association, 103*(11), 1506-1512.

Meloche, J. (2003). Cooking with class: Participation soars with hands-on learning and take-aways. *Journal of Nutrition Education and Behavior, 35*(2), 107-108.

Michaud, P., Condrasky, M., & Griffin, S. F. (2007). Review and application of current literature related to culinary programs for nutrition educators. *Topics in Clinical Nutrition, 22*(4), 336-348.

Monsivais, P., & Drewnowski, A. (2007). The rising cost of low-energy-density foods. *Journal of the American Dietetic Association, 107*(12), 2071-2076.

Neumark-Sztainer, D., Hannan, P. J., Story, M., Croll, J., & Perry, C. (2003). Family meal patterns: Associations with sociodemographic characteristics and improved dietary intake among adolescents. *Journal of the American Dietetic Association, 103*(3), 317-322.

New Mexico WIC Program. (1994). *Facilitator's guide for nutrition education: Listen, share, and support.* Retrieved June 12, 2009, from http://www.nal.usda.gov/wicworks/Sharing_Center/gallery/couns_ed1.htm

Nord, M., Andrews, M., & Carlson, S. (2008). *Household food security in the United States, 2007.* (USDA, Economic Research Service Report No. ERR-66). Washington, DC: USDA.

Office of Head Start, Administration for Children and Families. (2009). *About the Office of Head Start.* Retrieved June 17, 2009, from http://www.acf.hhs.gov/programs/ohs/about/index.html#mission

Office of Human Development Services, Department of Health and Human Services. *Eligibility, recruitment, selection, enrollment, and attendance in Head Start Rule*, 45 C.F.R. § 1305 (2007).

Patrick, H., & Nicklas, T. A. (2005). A review of family and social determinants of children's eating patterns and diet quality. *Journal of the American College of Nutrition, 24*,(2), 83-92.

Patrick, H., Nicklas, T. A., Hughes, S. O., & Morales, M. (2005). The benefits of authoritative feeding style: Caregiver feeding styles and children's food consumption patterns. *Appetite, 44*(2), 243-249.

Putnam, J., Allshouse, J., & Kantor, L., S. (2003). U.S. per capita food supply trends: More calories, refined carbohydrates, and fats. *Food Review, 25*(3), 2-15.

Reicks, M., Randall, J. L., & Haynes, B. J. (1994). Factors affecting consumption of fruits and vegetables by low-income families. *Journal of the American Dietetic Association, 94*(11), 1309-1311.

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior and health education: Theory, research and practice* (pp. 465-485). San Francisco, CA: Jossey-Bass.

Savage, J. S., Fisher, J. O., & Birch, L. L. (2007). Parental influence on eating behavior: Conception to adolescence. *Journal of Law, Medicine & Ethics, 35*(1), 22-34.

Story, M., Kaphingst, K. M., Robinson-O'Brien, R., & Glanz, K. (2008). Creating healthy food and eating environments: Policy and environmental approaches. *Annual Review of Public Health, 29*, 253-272.

Tanumihardjo, S. A., Anderson, C., Kaufer-Horwitz, M., Bode, L., Emenaker, N. J., Haqq, A. M., et al. (2007). Poverty, obesity, and malnutrition: An international perspective recognizing the paradox. *Journal of the American Dietetic Association, 107*(11), 1966-1972.

Troiano, R. P., & Flegal, K. M. (1998). Overweight children and adolescents: Description, epidemiology, and demographics. *Pediatrics, 101*(3), 497-504.

University of Wisconsin Cooperative Extension. (2009). *WNEP overview.* Retrieved June 17, 2009, from http://www.uwex.edu/ces/wnep/overview/index.cfm

U.S. Census Bureau. (2008a). *2007 County-level poverty rates for Wisconsin.* Retrieved June 22, 2009, from http://www.ers.usda.gov/Data/Povertyrates/PovListpct.asp?st=WI&view=Percent&longname=Wisconsin

U.S. Census Bureau. (2008b). *State and county quick facts.* Retrieved June 1, 2009, from http://quickfacts.census.gov/qfd/states/55/55005.html

U.S. Department of Health and Human Services. (2000). *Healthy People 2010: Understanding and improving health.* (2nd ed.). Washington, DC: U.S. Government Printing Office.

U.S. Department of Health and Human Services. (2001). *The Surgeon General's call to action to prevent and decrease overweight and obesity.* Rockville, MD: Author.

U.S. Department of Health and Human Services. (2008). Annual update of the HHS poverty guidelines. 73 Fed.Reg. 3971 (Jan. 23, 2008).

U.S. Department of Health and Human Services and National Institutes of Health. (2000). *The practical guide: Identification, evaluation, and treatment of overweight and*

obesity in adults. Retrieved June 22, 2009, from http://www.nhlbi.nih.gov/guidelines/obesity/practgde.htm

Videon, T. M., & Manning, C. K. (2003). Influences on eating patterns: The importance of family meals. *Journal of Adolescent Health, 32*(5), 365-373.

Wardle, J., Carnell, S., & Cooke, L. (2005). Parental control over feeding and children's fruit and vegetable intake: How are they related? *Journal of the American Dietetic Association, 105*(2), 227-232.

Wardle, J., Herrera, M. L., Cooke, L., & Gibson, E. L. (2003). Modifying children's food preferences: The effects of exposure and reward on acceptance of an unfamiliar vegetable. *European Journal of Clinical Nutrition, 57*(2), 341-348.

West Central Community Action Agency, Inc. (2005). *About us.* Retrieved June 17, 2009, from http://www.westcap.org/about.htm

Widome, R., Neumark-Sztainer, D., Hannan, P. J., Haines, J., Story, M. (2009). Eating when there is not enough to eat: Eating behaviors and perceptions of food among food-insecure youths. *American Journal of Public Health, 99*(5), 822-828.

Woodson, J. M., Braxton-Calhoun, M., & Benedict, J. (2005). Food for health and soul: A curriculum designed to facilitate healthful recipe modifications to family favorites. *Journal of Nutrition Education and Behavior, 37*(6), 323-324.

Appendix A: Survey Tool

This research has been approved by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46.

ID# _____

Date _____

Family Table Project Community Survey

The purpose of the survey is to learn more about family meals in your household. You will be asked some questions that should take about 10 minutes to complete. The services provided to you by this agency will not be affected by your participation in this survey. The results from this survey will be used to help plan a family meal preparation program in Barron County.

Your responses on this survey will be confidential; no one will be able to identify how you responded. There are no right or wrong answers to these survey questions, so please answer honestly.

As you answer the questions, please think about the *typical* routines that occur at your house.

1. What meal, breakfast, lunch, or dinner/supper, would you say is typically your family's *main* meal- or the meal when it is most likely for most of the family members to eat at home and eat together?

   ☐ Breakfast ☐ Lunch ☐ Dinner/supper

2. Who usually does the grocery shopping or picks up food for your family's meals?

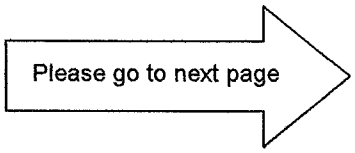
   ☐ Me ☐ My husband/wife/partner ☐ Other _____

3. Who usually prepares the main meal in your household?

   ☐ Me ☐ My husband/wife/partner ☐ Other _____

4. From which of the following places does your family get the food that is prepared at home? **(check all that apply)**

   ☐ Local grocery store
   ☐ Discount store
   ☐ Food pantry
   ☐ Farmers' market
   ☐ Convenience store/gas station
   ☐ Other _____



5. Out of those places, which <u>one</u> place would you say your family gets MOST of the food that is prepared at home? **(please check one)**
   - ☐ Local grocery store
   - ☐ Discount store
   - ☐ Food pantry
   - ☐ Farmers' market
   - ☐ Convenience store/gas station
   - ☐ Other _____

6. How much time is typically spent preparing the *main* meal in your household?
   - ☐ Less than 15 minutes
   - ☐ About 30 minutes
   - ☐ About 45 minutes
   - ☐ One hour or more

7. On average, how many times per week do most or all of the people in your family eat the *main* meal with the food consisting primarily of take-out food or packaged ready-to-eat items?

Examples of take-out foods: foods from the deli at the grocery store, take n' bake pizza, pre-made sandwiches, Chinese take-out

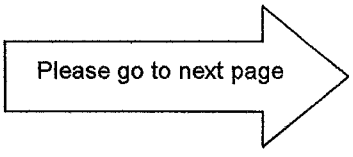
Examples of packaged ready-to-eat items: boxed macaroni & cheese, canned Spaghetti-Os, or frozen entrees, frozen pizza, or frozen burritos

   - ☐ Never
   - ☐ 1-2 times
   - ☐ 3-4 times
   - ☐ 5-6 times
   - ☐ 7 times

8. On average, how many times per week do most or all of the people in your family eat the *main* meal with food cooked at home, primarily "from scratch"? In other words, items that are NOT pre-packaged items or take-out food?

Example of a meal made "from scratch": packaged hamburger, spaghetti noodles, tomatoes, and seasonings to make a pasta dish (instead of canned Spaghetti O's)

   - ☐ Never
   - ☐ 1-2 times
   - ☐ 3-4 times
   - ☐ 5-6 times
   - ☐ 7 times



9. What kinds of kitchen appliances or equipment are used in your household (Check all that apply)?

- ☐ Conventional oven
- ☐ Stove
- ☐ Microwave
- ☐ Toaster oven
- ☐ Crock-pot
- ☐ Outdoor grill
- ☐ Refrigerator
- ☐ Freezer
- ☐ Other_____

10. On average, how many times per week do most or all of the people in your family eat the *main* meal together, in the same place and at the same time?

- ☐ Never
- ☐ 1-2 times
- ☐ 3-4 times
- ☐ 5-6 times
- ☐ 7 times

11. When the family eats at home, where in the house do people in your family usually eat the *main* meal? _____
(For example, the kitchen table, the living room, the family room, bedrooms)

12. On average, how many times per week is the television on during the *main* meal?

- ☐ Never
- ☐ 1-2 times
- ☐ 3-4 times
- ☐ 5-6 times
- ☐ 7 times

13. On average, how many times per week do most or all of the people in your family eat the *main* meal outside the home at places like sit-down restaurants, fast-food restaurants, cafeterias, etc.?

- ☐ Never
- ☐ 1-2 times
- ☐ 3-4 times
- ☐ 5-6 times
- ☐ 7 times

Please go to next page

14. Now, thinking about those typical mealtime routines that your family has, which of the following changes, if any, are you at all interested in helping your family make? **(check all that apply)**

- ☐ Eating more meals together
- ☐ Reducing food costs
- ☐ Eating healthier food
- ☐ Other _____
- ☐ I don't have any interest in improving my family's meals.

If you are interested in eating healthier food, which of the following changes, if any, would you like to help your family make? **(check all that apply)**

- ☐ Eat more fruits and vegetables
- ☐ Eat more whole grains (whole wheat bread instead of white)
- ☐ Eat less unhealthy fats
  E.g., saturated fat (from milk, cheese, red meat) and trans fats (from packaged foods)
- ☐ Other _____
- ☐ Not interested in making changes

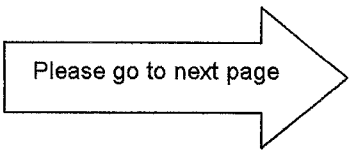
15. Of those changes, what would you say is **MOST** important with respect to improving your family's meals?
(please check one)

- ☐ Eating more meals together
- ☐ Reducing food costs
- ☐ Eating healthier food
- ☐ Other _____
- ☐ I don't have any interest in improving my family's meals.

Finally, the last questions are about you and who you live with. Keep in mind that your responses are confidential.

16. What is your gender? (please circle one) Female Male

17. What is your age? _____



18. Which of the following best describes your education?

- ☐ Some high school
- ☐ High school graduate
- ☐ Some college
- ☐ College graduate
- ☐ Graduate/professional school degree
- ☐ Other:_____

19. What is your ethnicity?

- ☐ American Indian/Alaska Native
- ☐ Asian
- ☐ Black/African American
- ☐ Hispanic/Latino
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Other _____

20. What is your zip code? _____

21. What is the total number of family members in your household? _____

22. Including yourself, how many of these people are adults, aged 18 years or older? _____

23. How many of these people are children under the age of 18 years? _____

Thank you!

This research has been approved by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46.

Número de Identificación _____

Fecha _____

Cuestionario del Proyecto de la Mesa Familiar

El propósito de este cuestionario es aprender más de las comidas familiares en su hogar. Se le hará algunas preguntas que deben tomar unos 10 minutos en completar. Los servicios que le presta esta agencia no serán afectados por su participación en esta encuesta. Los resultados de esta encuesta se utilizarán para ayudar a planear un programa de preparación de comidas familiares en el Condado de Barron.

Sus respuestas en este cuestionario serán confidenciales; nadie podrá identificar cómo Ud. contestó. No hay respuestas correctas o incorrectas a las preguntas de esta encuesta, así que se le ruega contestar francamente.

Mientras Ud. conteste, favor de pensar en las rutinas *típicas* que ocurren en su hogar.

1. ¿Cuál comida – desayuno, almuerzo o cena, diría Ud. que es típicamente la comida principal, o la comida cuando es más usual que la mayoría de los miembros de la familia coman en casa y coman juntos?

☐ Desayuno ☐ Almuerzo ☐ Cena

2. ¿Quién suele comprar los comestibles, o quién va a buscar los alimentos para las comidas de su familia?

☐ Yo ☐ Mi esposo/esposa/pareja ☐ Otra persona _____

3. Usualmente, ¿quién prepara la comida principal en su hogar?

☐ Yo ☐ Mi esposo/esposa/pareja ☐ Otra persona_____

4. ¿En cuáles de los siguientes lugares obtiene su familia la comida que se prepara en el hogar? **(marque todas las respuestas que correspondan)**

☐ Supermercado local
☐ Supermercado de saldos
☐ Despensa de alimentos
☐ Mercado local de agricultores
☐ Gasolinera o almacén de conveniencia
☐ Otro _____

Volver la página

5. De estos lugares, ¿cuál es el lugar que en su opinión el más utilizado por su familia para conseguir la mayoría de los alimentos que se preparan en su hogar? **(favor de marcar uno)**

- ☐ Supermercado local
- ☐ Supermercado de saldos
- ☐ Dispensa de alimentos
- ☐ Mercado campesino
- ☐ Almacén de conveniencia
- ☐ Otro _____

6. Típicamente, ¿cuánto tiempo le toma preparar la comida *principal* en su hogar?

- ☐ Menos de 15 minutos
- ☐ Unos 30 minutos
- ☐ Unos 45 minutos
- ☐ Una hora o más

7. Como promedio, ¿cuántas veces por semana comen todos los miembros de la familia, o la mayoría de ellos, la comida *principal* con alimentos que consisten principalmente de comida para llevar o alimentos envasados y listos para comer?

Ejemplos de comida para llevar: alimentos del deli del supermercado, pizza lista para hornear, sándwiches pre-preparados, comida china para llevar

Ejemplos de alimentos envasados y listos para comer: macarrones con queso, espaguetis en lata, platos congelados, pizza congelada o burritos congelados

- ☐ Nunca
- ☐ 1-2 veces
- ☐ 3-4 veces
- ☐ 5-6 veces
- ☐ 7 veces

8. Como promedio, ¿cuántas veces por semana comen todos o la mayoría de los miembros de su familia como comida *principal* una comida casera? En otras palabras, alimentos que no son productos envasados o para llevar?

Ejemplo de una comida casera: carne molida envasada, espaguetis secos, tomates y especias para hacer un plato de pastas (en vez de espaguetis pre-preparados en lata como Spaghetti O's)

- ☐ Nunca
- ☐ 1-2 veces
- ☐ 3-4 veces
- ☐ 5-6 veces
- ☐ 7 veces

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9. ¿Qué tipos de electrodomésticos se utilizan en su hogar? (Marcar todos que correspondan)

- ☐ Horno tradicional
- ☐ Estufa
- ☐ Micro-ondas
- ☐ Horno para tostar pan
- ☐ Olla de cocción lenta
- ☐ Parrilla de jardín
- ☐ Refrigerador
- ☐ Congelador
- ☐ Otro_____

10. Como promedio, ¿cuántas veces por semana comen todos los miembros de la familia, o la mayoría de ellos, la comida *principal* juntos, en el mismo lugar y a la misma vez?

- ☐ Nunca
- ☐ 1-2 veces
- ☐ 3-4 veces
- ☐ 5-6 veces
- ☐ 7 vez

11. Cuando la familia come en casa, ¿en qué habitación comen la comida principal los miembros de su familia? _____

(Por ejemplo, la mesa de la cocina, en el salón, en la sala de recreación, en su cuarto)

12. Como promedio, ¿cuántas veces por semana está encendido el televisor durante la comida principal?

- ☐ Nunca
- ☐ 1-2 veces
- ☐ 3-4 veces
- ☐ 5-6 veces
- ☐ 7 veces

13. Como promedio, ¿cuántas veces por semana comen todos los miembros de su familia o la mayoría de ellos la comida *principal* fuera del hogar en lugares como restaurantes formales, restaurantes de comida rápida, cafeterías, etc.?

- ☐ Nunca
- ☐ 1-2 veces
- ☐ 3-4 veces
- ☐ 5-6 veces
- ☐ 7 veces

Volver la página

14. Ahora, pensando en aquellas rutinas alimentarias típicas de su familia, ¿cuáles de los cambios siguientes le gustaría hacer para ayudar a su familia? (**marque todos los que correspondan**)

- ☐ Comer juntos con más frecuencia
- ☐ Reducir el costo de los alimentos
- ☐ Comer alimentos más sanos
- ☐ Otros _____
- ☐ No tengo interés en mejorar las comidas de mi familia.

Si le gustaría comer alimentos más sanos, ¿cuáles de los cambios siguientes quisiera Ud. hacer para ayudar a su familia? (**marque todos los que correspondan**)

- ☐ Comer más frutas y verduras
- ☐ Comer más granos integrales (pan integral en vez de pan blanco)
- ☐ Comer menos grasas que son malas para la salud

  Por ejemplo grasa saturada (de leche, queso, carne) y grasas trans (de alimentos envasados)
- ☐ Otros _____
- ☐ No me interesa hacer cambios.

15. De estos cambios, ¿cuál es el más importante en su opinión con respecto a mejorar las comidas de su familia? (**Favor de marcar uno**)

- ☐ Comer juntos con más frecuencia
- ☐ Reducir el costo de los alimentos
- ☐ Comer alimentos más sanos
- ☐ Otros _____
- ☐ No me interesa mejorar las comidas de mi familia.

Por fin, las últimas preguntas tienen que ver con Ud. y de las personas con quienes Ud. vive. Recuerde que las respuestas son confidenciales.

16. ¿Cuál es su sexo? (favor de trazar un círculo alrededor de uno) Feminino Masculino

17. ¿Qué edad tiene Ud.? _____

Volver la página

18 ¿Cuál de los siguientes aseveraciones mejor describe su nivel de educación?

- ☐ Algunos años de la escuela secundaria
- ☐ Diploma de escuela secundaria
- ☐ Algunos estudios superiores
- ☐ Diploma universitario
- ☐ Diploma de nivel posgrado o profesional
- ☐ Otro:_____

19. ¿Cuál es su identidad étnica?

- ☐ Amerindio/Original de Alaska
- ☐ Asiático
- ☐ Negro/Afroamericano no de origen hispano
- ☐ Hispano/Latino
- ☐ Hawaiano u otro grupo étnico de las islas del Océano Pacífico
- ☐ Blanco
- ☐ Otro_____

20. ¿Cuál es su código postal? _____

21. ¿Cuál es el número total de familiares en su hogar? _____

22. Incluyéndole a Ud. , ¿cuántas de estas personas son adultos, de por lo menos 18 años?_____

23 ¿ Cuántas de estas personas son niños de menos de 18 años? _____

¡Gracias!

Appendix B: Institutional Review Board Approval Letter

Research Services
152 Voc Rehab Building

STOUT
UNIVERSITY OF WISCONSIN

University of Wisconsin-Stout
P.O. Box 790
Menomonie, WI 54751-0790

715/232-1126
715/232-1749 (fax)
http://www.uwstout.edu/rs/

Date: July 29, 2009

To: Susan Krahn

Cc: Carol Seaborn, UW-Stout Advisor
Kirstin Siemering, UW-Madison Advisor

Susan Foxwell

From: Sue Foxwell, Research Administrator and Human Protections Administrator, UW-Stout Institutional Review Board for the Protection of Human Subjects in Research (IRB)

Subject: **Protection of Human Subjects**

Your project, "*The Family Table Project,*" has been approved by the IRB through the expedited review process. The measures you have taken to protect human subjects are adequate to protect everyone involved, including subjects and researchers.

Please copy and paste the following message to the top of your survey/interview form before dissemination:

This research has been approved by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46.

This project is approved through July 8, 2009. Modifications to this approved protocol need to be approved by the IRB. Research not completed by this date must be submitted again outlining changes, expansions, etc. Federal guidelines require annual review and approval by the IRB.

Thank you for your cooperation with the IRB and best wishes with your project.

***NOTE: This is the only notice you will receive – no paper copy will be sent.**

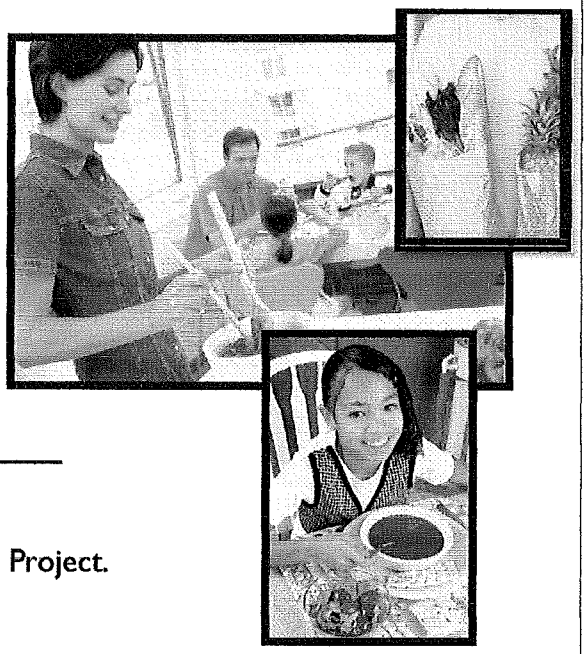
Appendix C: Informational Handout

The Family Table Project

What is the Family Table Project?

The Family Table will bring a shared meal preparation service to families like yours in Barron County.

Family Table participants will work together to cook and assemble meals to take home for their families.



Your family will benefit from:

- Fresh, tasty, and healthy meals that can be quickly and easily prepared during a busy week.
- Lower grocery costs for your family budget

How you can be Involved:

We want your help in developing the Family Table Project.
Here is how you can get involved-

Listening Sessions:

Group discussions with 7 - 8 people in each session will last up to 2 hours. These will be informal discussions that will help us learn how we should design the Family Table Project to meet the "real life" needs of local families like yours. You will receive a $20 grocery gift card as a "thank you" gift for coming to a listening session. These will be fun and informative events!

Family Table 2-week & 5-week sessions:

Each session will last about 2 hours and meet once each week with 7 - 9 participants. Childcare will be provided. We will use kitchens in local schools, community centers, and churches. Each session will start with welcome activities and a review of the recipes. We will then spend time in shared cooking and packaging of meals. Sessions will also include a group discussion about family meals and nutrition. You will take home several meals from each session for your family to use that week. Food used to cook the meals will be provided at no cost and you will receive a grocery gift card if you attend all of the sessions.

For more information, contact:
Tracey Mofle, UW-Barron County (715-790-9177)

Audrey Held, UW-Extension Barron County (715-537-6250)

The Family Table Project is made possible through a partnership between WestCAP, Wisconsin AHEC, UW-Barron County, UW-Extension Barron County, Barron County Head Start, Health and Human Services, and Barron County Office of Aging. The project is funded by the Wisconsin Partnership Fund for a Healthy Future.

Appendix D: Consent Form- Survey

Consent Form to Participate in Family Table Project - Brief Survey

Introduction and Project Purpose. The Family Table Project is being sponsored by the University of Wisconsin-Madison and conducted in partnership with UW Extension Barron County and Barron County Head Start. The project will work with families served by these agencies to develop a program through which participants will work together to cook and assemble meals to take home and feed to their families. The program will give families greater access to fresh, tasty, and nutritious foods and should also give them more time to spend together to eat it. Results from this brief survey will give the project team some basic information to better understand the resources, needs, and preferences of those who are most likely to participate in the program.

How was I selected? You are being invited to participate on the basis of your current or past participation in programs sponsored by Barron County Extension or Barron County Head Start.

What is my role? You will be asked to complete a brief survey, which will take less than 10 minutes to complete. Survey questions will be read aloud to you and a member of the project staff will record your responses.

How will the surveys be used? Results from this brief survey will help the project team develop the program to make sure it fits the resources, needs, and preferences of families like yours. Results may be summarized in public presentations and/or articles written for a variety of audiences, including academics.

Will my name or identifying information be used? You will not be asked to provide your name or contact information unless you decide that you would like to be contacted by project staff about other opportunities to participate in Family Table Project activities. If you do provide your name and contact information, this information will be kept separate from your survey responses. The information you provide on the survey will be linked to you through a unique identification number that may only be accessed by the research team.

How long will the survey take? The survey will take less than 10 minutes to complete.

What are the benefits and risks of participating in this project?
There are no direct risks or benefits to participating.

How will the surveys be stored? Completed surveys and forms will be stored in a locked file designated for this project and stored indefinitely. Access to these files will be limited to the research team.

Will I be compensated for my participation? You will receive no compensation for taking part in this brief survey. However, you will be invited to sign up to take part in a "trial run" of the actual program. These "trial runs" will occur in late summer and early fall of 2008. We will have some sessions that will run for 2 weeks in a row and some sessions that will run for 5 weeks a row. Each week, program participants will take home approximately $60 worth of meals they help prepare.

University of Wisconsin-Madison
FWA00005399

Protocol: SE-2008-0394
Approved: 8/14/2008
Expires: 7/27/2009

What if I change my mind and do not want to take the survey? Your participation is completely voluntary. You may skip any question you do not want to answer or stop taking the survey altogether at any time. These decisions will in no way affect your relationship with Barron County Extension, Barron County Head Start, or any affiliating organizations.

What if I have additional questions about the project or my participation? If you have any questions about this project, feel free to contact the project director, Kirstin Siemering at (608) 265-6323. You may also contact the UW-Madison's Education and Social and Behavioral IRB at (608) 263-2320.

Agreement statement: By signing this consent form, I agree to participate in the Family Table Project's brief survey.

Print Adult's Name _____ Date of Birth _____
Adult Signature _____ Date _____

University of Wisconsin-Madison
FWA00005399

Protocol: SE-2008-0394
Approved: 8/14/2008
Expires: 7/27/2009

Appendix E: Follow-up Form

Family Table Project Community Survey

A. Would you like the Family Table Project staff to follow-up with you for future program activities?

Name _____

Address _____

Telephone No. _____

B. Please check the activities that you might be interested in:

☐ Focus groups ☐ 2-week Pilot Sessions ☐ 5-week Pilot Sessions

C. While you participate in focus groups or pilots, would you request:

☐ Childcare (For how many children? _____; ages: _____)

☐ Transportation

D. When would you be available for focus groups and pilot sessions?

Weekdays Please circle the days that would work best: MON TUES WED THU FRI

Please check any of the times that you would be able to participate:

☐ Mornings

☐ Afternoons

☐ Evenings

Weekdays Please check any of the times that you would be able to participate:

Saturday

☐ Morning

☐ Afternoon

☐ Evening

Sunday

☐ Morning

☐ Afternoon

☐ Evening

For Staff Use Only: Date_____ ID#:_____

Appendix F: Consent Form- Focus Group

Consent Form to Participate in Family Table Project - Focus Group

Introduction and Project Purpose. The Family Table Project is being sponsored by the University of Wisconsin-Madison and conducted in partnership with UW Extension Barron County and Barron County Head Start. The project will work with families served by these agencies to develop a program through which participants will work together to cook and assemble meals to take home and feed to their families. The program will give families greater access to fresh, tasty, and nutritious foods and should also give them more time to spend together to eat it. Results from this brief survey will give the project team some basic information to better understand the resources, needs, and preferences of those who are most likely to participate in the program.

How was I selected? You are being invited to participate on the basis of your current or past participation in programs sponsored by Barron County Extension or Barron County Head Start.

What is my role? You will be asked to participate in a discussion with approximately 8-10 other people to give your ideas and opinions on the program's development. Your input is very important and will play a major role in determining what shape the program ultimately takes. In this discussion, there will be no "right" or "wrong" answers. The purpose is to allow participants to exchange thoughts with one another and give recommendations to the project team. The discussion will be audio-taped and transcribed so that project team members (not all will be present during the discussion) may learn from what is said.

How will the results be used? Results from the discussion will help the project team develop the program to make sure it fits the resources, needs, and preferences of families like yours. Results may be summarized in public presentations and/or articles written for a variety of audiences, including academics.

Will my name or identifying information be used? Your participation is confidential. Project staff will not record your name nor any other information that could be used to identify you or link you to your comments appearing on written transcripts of the discussion.

How long will the discussion take? The discussion will take approximately 1 to 1.5 hours. Childcare and refreshments will be provided.

What are the benefits and risks of participating in this project? There are no direct risks or benefits to participating.

How will the audio files and written transcripts be stored? The audio files and written transcripts will be stored in a locked file designated for this project and stored indefinitely. Access to these files will be limited to the research team.

University of Wisconsin-Madison
FWA00005399

Protocol: SE-2008-0394
Approved: 8/14/2008
Expires: 7/27/2009

Will I be compensated for my participation? You will receive a "thank you" give of a $20 gift card for taking part in the discussion. You will also be invited to sign up to take part in a "trial run" of the actual program. These "trial runs" will occur in late summer and early fall of 2008. We will have some sessions that will run for 2 weeks in a row and some sessions that run for 5 weeks a row. Each week, program participants will take home approximately $60 worth of meals they help prepare.

What if I change my mind? Your participation is completely voluntary. You may talk as much or little as you like during the discussion and will not be required to respond to any questions. You may also leave the discussion altogether at any time. These decisions will in no way affect your relationship with Barron County Extension, Barron County Head Start, or any affiliating organizations.

What if I have additional questions about the project or my participation? If you have any questions about this project, feel free to contact the project director, Kirstin Siemering at (608) 265-6323. UW-Madison's Education and Social and Behavioral IRB at (608) 263-2320.

Agreement statement: By signing this consent form, I agree to participate in the Family Table Project's focus group discussion.

Print Adult's Name _____ Date of Birth _____
Adult Signature _____ Date _____

University of Wisconsin-Madison
FWA00005399

Protocol: SE-2008-0394
Approved: 8/14/2008
Expires: 7/27/2009

Appendix G: Focus Group Discussion Guide

Focus Group Questions: Family Table Project
November 2008

Introduction/Welcome

- Lunch & gift cards
- Introduce Kirstin, Susan, and Tracey
- Please feel free to talk as little or as much as you want.
- There is no right or wrong answer.
- It is expected that everything discussed here today, stays here, and is confidential (review information from consent forms).

Engagement questions: How many children do you have and what are their names? What is one of your family's favorite meals?

PART 1. Initial questions about family dinnertime patterns: real vs. ideal (about 45 minutes)

1. When it comes to dinner, every family has its own way of doing things. What is your family's typical approach to dinner?

   Probe: What does dinnertime look like in your family? (thinking about what to have, getting the food, eating – when, where, who – and what kinds of foods you tend to have)

   Probe: What is going well in your home around dinner time? What do you like about what is happening now? What do you want to keep doing?

2. Has your family's approach to dinner changed over time (perhaps with changes in the family and or changes in jobs)? What has caused these changes?

3. Describe for us how you would like dinnertime to be in your family – what's your "ideal"?

4. Most of us would probably agree that families today tend to be very busy, have a lot going on. It can be hard to do everything we feel we want to do or need to do, and we end up choosing some things over others. As a result, when it comes to dinnertime, there can be major differences between how things actually are and they way we would like for them to be. Let's talk a bit about why this is the case. What gets in the way, or prevents your dinnertime from being ideal?

   Probe: What affect do various demands on your time and energy actually have on your family dinnertimes (e.g., quantity/quality/cost of food, who's present, time spent preparing and eating meal, etc.)?

5. Some of these are things that can be changed while others are things that would be very hard to change. Looking over this list, what are some things that you think are possible to change – especially with some help?

PART 2. Use responses from #6 to transition to more focused discussion on the Family Table Project...(about 45 minutes)

The idea behind the Family Table Project is this: we believe increasing families' access to good tasting, nutritious food that is be ready to put on the table with minimal amount of time and preparation. The program will basically create "cooking clubs" to allow people to spend a couple of hours cooking together, making meals that they will take home, put in their freezers, and then pull out on busy evenings to feed their families. We're very excited about the project, but we need advice and suggestions from the experts – busy moms and dads like you – to make the Family Table Project the best it can be.

1. What kinds of foods do you think participants would like to make?

   Probe for:

   - Family favorites
   - Suggestions for quick dishes
   - Suggestions for more detailed, complicated dishes
   - Do you think people would prefer more simple/basic flavors ("American food") or do you think people would like to be adventurous and try new flavors ("Ethnic food)?
   - What about individual foods (like meatloaf, mashed potatoes, green beans) versus mixed dishes (such as soups, stews, and casseroles).
   - What about "meat and potatoes" type dinners versus meals with little or no meat?
   - Would you prefer a smaller number of whole meals (protein, vegetable(s), starch, etc.) or a larger number of meal components with suggestions on how the could be made into a full meal? Take taco filling (seasoned ground beef with onions, etc.) for example. We could make taco filling at one of the sessions and provide everything you would need to make tacos. Or, we could make the taco filling and provide a handout with a handful of ways to use the taco filling (tacos, tostadas, burritos, stew, etc.).

2. The program will provide an opportunity for people to gain information and skills. We have some ideas of what people might like or think is useful, but we really need your ideas. What do you think people would like to learn?

   Examples:

   - Healthy food choices – what should I be feeding my family?
   - Specific cooking skills – e.g., stir fries, baking, etc.
   - Tips for eating well on a tight budget
   - Strategies for feeding children – e.g., how do you get them to eat vegetables?
   - Strategies for cooking with children
   - Managing mealtimes – how to deal with "competition" from outside forces such as work, school, activities, etc.
   - How to make mealtime fun without the t.v.! (reviving the art of dinnertime conversation)
   - How to care for ourselves – tips for carving out personal time to refresh and renew

Thank you. Follow-up information collected.