

Full Tummies, Full Lives  
A Rationale for Improving Childhood Nutrition: A Program to  
Enhance the Health of Families Experiencing Food Insecurity in Benton County

by  
Anna M. Wilsey

A PROJECT  
Submitted to  
Oregon State University  
University Honors College

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Honors Baccalaureate of Science in Public Health (Honors Scholar)

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## AN ABSTRACT OF THE THESIS OF

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Leslie Richards

Food insecurity is a growing public health concern in Oregon. Those that are food insecure often develop strategies, such as reducing the size of meals, cutting out fruits, vegetables and meats or skipping meals entirely, to make food last. One group that is disproportionately affected by food insecurity is families. Full Tummies, Full lives (FTFL) was designed to improve nutrition among children in families in Benton County, Oregon experiencing food insecurity by providing education, skill building and community support. To evaluate FTFL, seven one-on-one interviews were conducted with professionals working in the areas of food security and/or nutrition education. The goal of these interviews was to gain their opinions on the feasibility of nutrition education and cooking skills programs, learn more about the needs of low-income and food insecure families and the barriers these families experience to participating in health promotion programs. The information gathered from these interviews was then used to evaluate FTFL to determine if FTFL is relevant for food insecure families, addresses areas that other available programs do not; focuses on the correct needs of this population; and if the components of FTFL are feasible. Proposed changes to the program, as well as directions for future research are also discussed.

Key Words: food security, nutrition, education, families, Oregon

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Dean, University Honors College

I understand that my project will become part of the permanent collection of Oregon State University, University Honors College. My signature below authorizes release of my project to any reader upon request.

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Anna M. Wilsey, Author

## **ACKNOWLEDGEMENT**

I have a number of very important people to thank for helping me make this thesis possible. I would like to thank:

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## **DEDICATION**

To my Mamma and Daddy.

Full Tummies, Full Lives  
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Enhance the Health of Families Experiencing Food Insecurity in Benton County

CHAPTER 1

Introduction

The foundation of this thesis is a health promotion program that I wrote for my writing intensive course, Health Program Planning and Evaluation (H476), at Oregon State University in the fall of 2011. For this class, I was required to select a certain population, research a health issue affecting that population and then develop a program to address the predisposing, enabling and reinforcing factors associated with that health issue. For my program, I chose to focus on families with young children in Benton County, Oregon experiencing food insecurity and hunger.

Food insecurity refers to “the condition in which one lacks enough income and resources to gain consistent access to enough food to maintain an active, healthy lifestyle” (Roberts, 2010). In other words, food-insecure families are struggling to feed themselves and their children. To cope, these families have developed strategies to stretch their food dollar from reducing the size of their meals or skipping meals entirely to replacing fresh fruits and vegetables with more processed, boxed meals (Childhood Hunger Coalition, 2010; Edwards, 2010a). Food insecurity does not only affect adults. It can negatively impact children’s health, academic performance and development (Oregon Food Bank, 2010).

After combing through the literature on food insecurity and its impact on families, I learned that there are many factors that influence a family’s food security. Some of these factors like the high cost of rent, unemployment and medical bills are difficult to change but some

others, such as lack of knowledge about how to cook from scratch and lack of access to well-stocked grocery stores and farmer's markets, could be addressed by a health promotion program. With that in mind, I developed Full Tummies, Full Lives.

At the conclusion of the class, I was not quite ready to put my program away. Working on it had inspired me and I realized that I had a pretty solid basis for a thesis. I also was curious to find out if my program was truly feasible. With that in mind, I decided to present my program to a group of professionals working in nutrition education, family health and food security and then interview them to see what they thought of it. Next to talking to young families in the area, I felt that these professionals would have the best understanding of the needs and barriers of food-insecure families. The goal of the interviews was to determine three things: one, if Full Tummies, Full Lives (FTFL) is relevant for food-insecure families and addresses areas that other available programs do not; two, if FTFL focuses on the correct needs of this population, and three, if the components of FTFL are feasible. In essence, the interviews constituted a feasibility study. The answers participants provided were used first, to evaluate FTFL and second, to support changes to the original program. Though far from true implementation, this feasibility study served as an important learning experience and, I hope, has contributed valuable information to the larger body of knowledge about how to address food insecurity and hunger.

## CHAPTER 2

### Literature Review

#### *Background and Significance*

Food insecurity affects more than 12 percent of Oregon households (Childhood Hunger Coalition, 2010). That means that 180,000 households are struggling to put food on the table (Childhood Hunger Coalition, 2010). Further, of that 180,000, 79,000 are experiencing hunger (Childhood Hunger Coalition, 2010). In fact, Oregon is one of the nation's top five hungriest states (Kempe-Ware, Chanay, & Edwards, 2010). Food insecurity tends to be more prevalent among families with children: "Households with children experience food insecurity at about twice the rate of households without children" (Childhood Hunger Coalition, 2010).

To cope with food insecurity, families develop strategies to stretch their food for as long as possible (Childhood Hunger Coalition, 2010). Unfortunately, this may mean that their meals are not nutritional adequate. According to research by Hoisington, Shultz, Butkus (2002), some households reduce fresh vegetables and meats due to cost and replace them with potatoes or noodles while others stock up on boxed foods (as cited in Childhood Hunger Coalition, 2010). Some families are even forced to reduce the size of their children's meals (Benton County Health Department, 2009). The Oregon Food Bank reported that "27% of household [*sic*] with children report cutting or reducing the size of a child's meals" (Benton County Health Department, 2009). Finally, many families end up relying on emergency food boxes from food pantries. In 2008, the Linn-Benton Food Share was annually distributing 42,118 food boxes, serving, per month, approximately 12,193 people (Oregon Food Bank, as cited in Benton County Health Department, 2009).

### *What is Food Insecurity?*

Food insecurity refers to “the condition in which one lacks enough income and resources to gain consistent access to enough food to maintain an active, healthy lifestyle” (Roberts, 2010). This means that an individual or family is struggling to feed themselves or their children and therefore skip meals, buy less nutritious foods and reduce portion sizes (Edwards, 2010a). Often these families must find ways to stretch their food until the end of the month and worry about how they will get their next meal. In 2006-2008 in Oregon, 13.1% of households were food-insecure, compared to the national rate of 12.3% (Edwards, 2010b). Among the food-insecure are those experiencing “very low food security” or hunger. This type of food insecurity occurs in Oregon at a higher rate than in the rest of the United States (Edwards, 2010b). Between 2006 and 2008, the percentage of households experiencing very low food security in Oregon was 6.6%, two percentage points higher than what was recorded for the rest of the nation (4.6%) (Edwards, 2010b).

A significant risk factor for food insecurity is poverty. “In Oregon, households with annual family income below that 185%-line [poverty line] are significantly more likely to experience hunger than are low-income families in other parts of the country” (Edwards, 2010b). The rate for those below 185% was 16% compared to the overall United States rate of 11.2%. There are other risk factors, unrelated to poverty, which put a family or an individual at a higher risk for food insecurity. A report by the Childhood Hunger Coalition concluded that high costs of living, medical costs, unemployment, not accessing assistance programs, having a disabled family member and a “lack of social support networks” may also influence someone’s likelihood of being food-insecure (Childhood Hunger Coalition, 2010). No one factor solely contributes to causing food insecurity. Any combination of these factors could contribute to an environment

that promotes food insecurity. As the Childhood Hunger Coalition report (2010) explained:

“Household food insecurity may be lessened or resolved, maintained, or worsened, depending on food acquisition tactics, access to and availability of nutritious and affordable foods and use and adequacy of food assistance programs.”

### *Who Experiences Food Insecurity?*

Food insecurity can and does occur in many different situations: in rural or urban areas, to the young or old, in single parent or married couple households, and during employment or unemployment. However, there are groups of people who are disproportionately affected by food insecurity. According to Edwards (2010a), “researchers have found that very low food security (i.e., hunger) is highest among single mother households (15%) and poor and near-poor families (16%), as well as renters, unemployed workers, and households with adults who are Hispanic and African American.” Moreover, in 2006-2008, those that lived in Oregon’s urban areas had a higher hunger rate, 7.0%, compared to those in rural areas, 5.1% (Edwards, 2010b).

Education also is a predictor of food insecurity and hunger. The trend appears to be that the less education the head of the household has, the more likely they are to experience food insecurity. Between 2006 and 2008 in Oregon, those with less than a high school education had a hunger rate of 14.8%. Comparatively, those with a Bachelor’s degree or above had a hunger rate of only 2.4% (Edwards, 2010b).

One’s marital status also plays a role in determining one’s likelihood of food insecurity. In 2006-2008, single mothers bore the brunt of food insecurity in Oregon, with a hunger rate of 14.8%. Closely following single mothers, were women living alone (11.3%) and married couples with children (6.1%) (Edwards, 2010b). Food insecurity also disproportionately affected

Hispanic families in 2006-2008. According to Edwards (2010b), “Hispanic households in Oregon have higher hunger rates than non-Hispanic (14.8% v. 6.1%).”

Food insecurity does not only affect adults; children too experience food insecurity and hunger. The impact that food insecurity has on children can be seen not only in their overall health but in their behavior and academic performance. Oregon Food Bank’s *Profiles of Hunger & Poverty in Oregon* (2010), cites research done by Leachman, Bauer, and Margheim (2006) that demonstrates a link between food insecurity and “negative health and academic outcomes” including: “poorer overall health status and compromised ability to resist illness”, “elevated occurrence of stomachaches, headaches, colds and ear infections”, “higher levels of aggression, hyperactivity and anxiety as well as passivity”, “impaired cognitive functioning and diminished capacity to learn”, and “lower test scores and poorer overall school achievement” (pp.12).

Benton County has a total population of 75,392 people. In 2009, of the total population of Benton County, 13,948 (or 18.5%) people were living in poverty and 22,511 were living at or below 185% of poverty (Partner’s for a Hunger-Free Oregon, 2010). Within the total population of the county in 2009, 19.1% were children between the ages of 0 and 18. The number of children living in poverty in 2009 was 14.9% (2,139 children) and 3,968 were living at or below 185% of poverty. The prevalence of childhood poverty in an area is often measured by “the percentage of children eligible to receive free or reduced lunch in public schools (Benton County Health Department, 2009). The school with highest number of eligible students, at 48.4%, was Monroe. In 2009, the number of children eligible for free or reduced lunches in Benton County increased to 3,338 students (37.5% of students) though “only 1,665 received a lunch each day on average” (Partners for a Hunger-Free Oregon, 2010).



Interestingly, the hunger rate for Oregon children in 2006-2008 (1.6%) was a lot less than the rate for the households they lived in (6.1% for married couples with children and 14.8% for single mothers) (Edwards, 2010b). What may have contributed to this lower rate were school lunch programs. According to Mark Edwards (2010b), “a household can experience very low food security but insulate the children from the experience by making sure the children have enough to eat, either at home or via school feeding programs. Hence a household could have very low food security overall (based on what the parents experience) while the child receives adequate levels of food.”

### *Public Health Programs*

In Oregon, there are a number of public health programs in place to help low-income families receive the assistance they need, particularly when it comes to food. The Supplemental Nutrition Assistance Program (SNAP), formally known as the “food stamp” program, is designed to help low-income families afford groceries. Specifically:

The intent of the Program is to help improve the health and well being of low-income households and individuals by providing them a means to meet their nutritional needs. Contrary to popular belief, SNAP benefits are not meant to meet all of the food needs of a household or an individual, but to supplement their nutritional needs. (Oregon Department of Human Services, 2011b)

SNAP is an important asset to families struggling to make ends meet but, it is not the solution to food insecurity. As the program name indicates, it is only meant to “supplement” what a family is already able to purchase. In some cases, SNAP benefits may not be enough and some families in need may not be accessing the program. Benton County Health Department’s 2009 Health Status Report writes that: “In 2007, 8.2% of Benton County households and 9.7% of Benton County families received food stamps.

Of the 19% of Benton County households living below the poverty level, 45.1% of households received food stamps.”

Throughout Oregon, families in need can receive a food box, described as a “free, three-to five-day supply of food,” from a food bank or food share (Oregon Food Bank, n.d.). Individuals and families can also receive a nutritious meal at a “meal site.” Additionally, there is emergency food assistance through The Emergency Food Assistance Program (TEFAP). In 2009 in Benton County, “13,176 food boxes and 5 congregate meal sites provided emergency food to help families make ends meet” according to Partners for a Hunger-Free Oregon (2010). There are many reasons why a family would need an emergency food box. It was reported in *Profiles of Hunger and Poverty in Oregon* (Oregon Food Bank, 2010), that 50% of households participating in the survey sought emergency food boxes because their food stamps had run out, 44% because of high food costs and 31% due to extended unemployment. Food Boxes and TEFAP, like SNAP, are not meant to be the primary source of food for individuals or families.

Another program in place is Temporary Assistance to Needy Families, or TANF. TANF does not address food insecurity directly, but rather poverty, a significant risk factor for food insecurity. The program: “provides cash assistance to low-income families with children while they strive to become self-sufficient. The program's goal is to reduce the number of families living in poverty, through employment and community resources” (Oregon Department of Human Services, 2011a). TANF is an important program for those experiencing food insecurity because it not only provides money but opportunities to help families improve their situation. The goal is for the family to become self-sufficient and not dependent on cash assistance.

There are also programs available that provide families with nutrition education. One example is the Women, Infants and Children (WIC) program. WIC is part of the Food and Nutrition Service of the United States Department of Agriculture (USDA). WIC “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 age five who are found to be at nutritional risk” (Food and Nutrition Service, 2012). On the state level, Oregon State University’s (OSU) Extension service has the Oregon Nutrition Education Program (NEP) which includes the Oregon Family Nutrition Program (OFNP) and the Expanded Food and Nutrition Education Program (EFNEP) (OSU Extension Family and Community Health, 2008). OFNP helps families learn about how to eat healthfully and be active as well as how to increase their food security (OSU Extension Family and Community Health, 2008). The goal of OFNP is “to provide educational programming that will increase, within a limited budget, the likelihood that all SNAP recipients and those eligible for SNAP are making healthy food choices and choosing active lifestyles...” (OSU Extension Family and Community Health, 2008). EFNEP is described as “designed to assist limited resource audiences in acquiring the knowledge, skills, attitudes, and changed-behavior necessary for nutritionally sound diets, and to contribute to their personal development and improvement of the total family diet and nutritional well-being” (OSU Extension Family and Community Health, 2008). EFNEP though, “serves limited income families in three Oregon counties—Lane, Multnomah, and Washington” (OSU Extension Family and Community Health, 2008).

### *Conclusion*

There are many programs available for young, low-income families to access. As was described above, there are federal programs like SNAP, TANF and WIC that provide monetary

assistance as well as nutrition education both of which are very helpful for these families and are needed. There are also many state efforts to help low-income families access food and provide them with the information and resources to be healthy. Oregon State University's Extension service has two programs under the Oregon Nutrition Program that focus on providing nutrition education and teaching families cooking skills. Finally, on the local level, there are church groups, community gardens, volunteer organizations and non-profit groups working to improve the lives of low-income families.

There are two features of Full Tummies, Full Lives (program is available in Appendix A) that set it apart from existing programs: first, FTFL provides childcare at classes and events; and second, the nutrition education and cooking skills curriculum is family-oriented and designed to include the entire family. FTFL would work alongside of and in collaboration with these existing programs. SNAP, TANF and WIC are crucial federal assistance programs that can provide monetary assistance where FTFL cannot. Oregon State University's Extension Service nutrition education program provides valuable nutrition information and cooking classes similar to FTFL though those programs cannot provide childcare at their classes. This is where FTFL could fill a niche and an unmet need. Moreover, these existing programs are mainly focused at providing nutrition education to the adults in the family. FTFL would be different in that the curriculum is designed around the children. Ideally, these family-focused classes would be different than nutrition education classes available for low-income families.

## CHAPTER 3

### One-on-One Interviews

#### *Introduction*

This portion details a feasibility study I conducted involving a series of seven, one-on-one interviews in April 2012 with professionals working in the areas of public health, nutrition education and/or food security. The goal of these interviews was to gain their professional opinions on the feasibility of nutrition education and cooking skills programs, the needs of low-income and food-insecure families and the barriers these families experience in participating in health promotion programs. The information gathered from these interviews was then used to evaluate the Full Tummies, Full Lives program to determine: (1) if Full Tummies, Full Lives (FTFL) is relevant for food-insecure families, addressing areas that other available programs do not, (2) if FTFL focuses on the correct needs of this population, and (3) if the components of FTFL are feasible. Based upon the information gathered in the interviews, I proposed a number of changes to Full Tummies, Full Lives to improve its implementation. The proposed changes to the program are included in the Discussion section of this paper.

#### *Method*

In order to conduct the interviews, I submitted a request to Oregon State University's Institutional Review Board. With the help of my mentor, Dr. Richards, I wrote a protocol for how my research was to be conducted, a consent form for the participants, and all of the materials that would be sent and/or given to the participants. What follows in this section is a detailed description of how the participants were selected for participation in the research and how each interview was conducted.

### *Participants*

The participants in these interviews were selected based upon two criteria. First, they had to work in the areas of nutrition education, public health and/or food security as well as have experience working with low-income families. Second, they had to be working within Linn or Benton County. The reason for these two criteria was because Full Tummies, Full Lives is meant to assist families living in Benton County. Therefore, I felt that the research participants should have experience working with the population FTFL is targeting. Eight individuals were contacted by mail to participate in the program. Seven responded and thus, a total of seven individuals were interviewed. The seven participants were: Dr. Leslie Richards from Oregon State University's (OSU) School of Social and Behavioral Health Sciences; Dr. Mark Edwards from the OSU Sociology department; Megan Patton-Lopez from the Benton County Health Department; Janice Gregg from OSU Extension Family and Community Health; Tina Dodge-Vera, from OSU Extension Service in Linn County; Amanda Klein, program manager at the Parent Enhancement Program of Corvallis, Oregon; and Liv Gifford, faculty research assistant in OSU's School of Social and Behavioral Health Sciences. The participants were not paid for their participation in this research.

### *Materials*

There were few materials used in the interview process of this thesis. To record each interview, an Olympus DS4000 Digital Voice Recorder was used and obtained through Oregon State University's Student Multimedia Services. Each participant was given a two page summary of Full Tummies, Full Lives (located in Appendix G) to read prior to the interview and were also provided a one-page consent form detailing what would be required of them as participants.

### *Process*

Following IRB approval of this research, individual letters were mailed, on April 3, 2012, to each participant. The letter explained the intent of the research, what would be required of the participant, and was signed by myself and my mentor. This letter can be found in the Appendix F. The letters sent to the participants explained that a program summary would be included in the letter for participants to view prior to the interview. Unfortunately, this was accidentally not included. To correct this mistake, the program summary was sent to participants as an email attachment. I received two responses via e-mail on April 6, 2012. The rest of the participants were contacted a second time via email on April 9, 2012. One participant did not receive his letter in the mail while another received hers by hand. Interviews were arranged for the second and third weeks of April. To record the interviews, a digital audio recorder was obtained from Oregon State University Student Multimedia Services. The participants were given the consent form prior to the interview and were asked to read it and give oral consent to participate.

For every interview, each participant was asked the same six questions. These questions were:

1. How knowledgeable do you think young families are about nutrition and cooking? Why do you think that is?
2. Do you believe there are cooking/nutrition education opportunities already available for these families to access?
3. What do you believe are barriers for young families to nutrition education/cooking skills programs in Benton County and in Oregon? On the other hand, what barriers do public health workers have in creating health program plans for this population?
4. How feasible are nutrition education/cooking skills programs for young families?
5. In your opinion, for young families facing food insecurity, what areas should public health programs address first? (i.e. what are the most pressing needs for these families that a public health intervention can address?) And, do you think there is a way to address those areas in a cost-effective way or with minimal funding?
6. Is there anything you would like me to not directly quote or attribute to you?

Depending on the course of the conversation, some questions were rephrased by me or left out. Though the interviews were intended to last thirty minutes, I let participants talk for as little or as long as they needed to answer the questions. Thus, the length of the interviews ranged from twelve to fifty minutes. The audio from each interview was taken off the memory card in the digital audio recorder and converted in to an mp3. After the files were converted, they were deleted from the memory card. Transcriptions of the audio were done and reviewed for accuracy. At the conclusion of the seven interviews, thank you letters were mailed to each participant thanking them for their participation and inviting them to attend my thesis defense in May 2012. Following the publication of this thesis, participants were notified by email and received the web link to my full thesis.

### *Results*

During the interviews, participants were asked six general questions about low-income and food-insecure families, their needs, and the barriers to nutrition education and cooking programs those families experience. The answers for each question are detailed below:

#### How knowledgeable do you think young families are about nutrition and cooking?

Each participant acknowledged that families, especially those that are young and low-income, could use more nutrition education and information about healthy eating for themselves and their children. However, participants explained that the degree of knowledge among these families is going to vary. From the participants' responses it appeared that the top two reasons why there is a knowledge gap are: first, that families do not know how to use or implement the knowledge they do have so they are unable to practice healthy eating behaviors; and second,



their experiences growing up created an environment where they could not develop cooking skills.

Amanda Klein and Liv Gifford both mentioned that some families may have the knowledge but are unable to put that knowledge into use. Gifford explains:

I would say that young families are somewhat knowledgeable about nutrition but often unable to put that knowledge into action. For example, a lot of people know that they should eat more fruits and vegetables but they feel constrained by different things and don't eat as much as they would like to or know that they should. And, don't have as much knowledge about how to change that or how to cook better for their families.

Klein believed that there are a few reasons why families have a difficulty implementing their knowledge: "I think it just costs a lot more money, takes a lot more time and families who are in crisis don't have their basic needs met so just getting any food on the table or providing anything is usually what happens." Tina Dodge-Vera agreed that families are struggling with applying what they know. She added that "they know that they should be eating less processed food, less... fatty foods, more fruits, more vegetables..." As for why this is, Dodge-Vera said that it could be because these families are still young and that they may not be experiencing any chronic diseases. Dodge-Vera reasoned that the families "don't see the connection between what they're eating and health." Additionally, Mark Edwards said that while families may or may not have the nutrition knowledge, what they are really struggling with is how to stretch their food dollars. He explained the dilemma as: "It's just cheaper to buy empty calories to keep people from feeling hungry. So, I think those people [that] are really struggling probably find that that's the way they can stretch their dollars." In sum, participants agreed that families' knowledge is somewhat limited but each offered a number of examples of barriers hindering families from applying the nutrition knowledge they have.

Janice Gregg explained a second reason why knowledge varies: one's "family of origin." Gregg explained that some young parents may have been raised by a parent that taught them how to cook and how to feed themselves while others may have not. Leslie Richards reasoned that a different home environment, particularly one where both parents work or is a single-parent household, has contributed to the lack of cooking skills among young families. She said that: "I don't think very many young families know very much about food and nutrition in part because families have really changed. [For] many young families, one or more in the couple grew up in a single-parent household or alternatively with a mother who worked." Richards explained that in this situation, cooking meals or sitting down to eat together as a family may not occur because there are so many demands and stresses on low-income families. Megan Patton-Lopez also cited one's past experiences as impactful on their knowledge of nutrition and cooking.

In the same vein as family of origin is simply the environment that these families are living in. One's family of origin certainly impacts one's current environment. Richards explained in her interview, while discussing barriers that families face, that "young parents with young kids who are poor very likely grew up in households that were poor." Families that are low-income have a lot in their environment that works against their ability to eat healthfully. For example, if they are living in low-income housing that housing may not be near a well-stocked grocery store. The family may not have a stove, a microwave or a freezer to cook with and store their food in. Not having those resources poses a significant barrier to cooking at home.

Do you believe there are cooking/nutrition education opportunities already available for these families to access?

Across the board, participants agreed that there are programs available for this population but often times the programs do not cover all of the needs of these families. Leslie Richards

noted that in general, “if you’re low-income, and you’re on food stamps, and you have children, I think that’s a targeted population for food and nutrition education.” Though it is a targeted audience, there were three main issues with current programs that emerged from the interviews: one, that the programs are designed for specific groups and audiences leaving a need for classes oriented towards families; two, that there are not enough out there for the people who need them; and three, that the capacity of existing programs is limited.

Amanda Klein mentioned that access to the right kind of class or a class that meets a family’s specific needs tends to be hard to find. Klein said specifically that:

Some classes are for school age kids, some classes are for parents, some classes are for Spanish speakers, some classes cost, some classes are free. So, I think there’s classes out there but it’s a matter of finding the classes that fit the family’s specific needs and demographics that is maybe not so easy to find.

Although, even if there is a class that addresses a family’s needs, and they are interested and excited to attend it, sometimes they still do not attend the class. Janice Gregg mentioned this trend in attendance in her interview. She described programs that she has worked on where a lot of outreach in the community had been done yet they still had very low attendance rates at their classes. However, when they would talk to families one-on-one about the classes, the family expressed an interest and desire to attend. Something, or many things, was still preventing families from coming to classes.

Another issue with the availability of existing nutrition education and cooking skills programs is that there are not enough for the families that need them. In discussing this issue, Liv Gifford said: “I think there are programs that are attempting to address this, but I don’t think there are enough. And there’s not enough funding, there’s not enough staffing and there’s not enough consistency...” Gifford’s comment indicates that there is an unmet need that a program

like Full Tummies, Full Lives can potentially fill. However, Gifford's comment also indicates that there are larger issues that programs face, such as a lack of funding and staff to run programs, which could be why the current environment has fewer programs.

Finally, while there are programs available, they cannot support all of the families that qualify or need them. Megan Patton-Lopez explained that "locally, there are programs... so, [in] Benton and Linn...[OSU] Extension does provide nutrition education, but their capacity is... limited. And they may not be able to reach everybody that could benefit from the program..." Patton-Lopez suggested a few ways that this could be addressed by a program like FTFL. She explained that partnering with an existing organization in the area to do outreach for the program and communicating with other agencies to determine which populations are being served would both help in connecting with families as well as identifying ones that need services or who are not currently involved in a nutrition education program.

What do you believe are barriers for young families to nutrition education/cooking skills programs in Benton County and in Oregon?

The two most frequently mentioned barriers to participation for young families discussed in the interviews were transportation and childcare. Participants stressed that these families sometimes experience very limited availability of transport to and from classes or events as well as affordable and reliable childcare. These are practical and logistical issues that programs need to address because they do prevent many families from participating. When it comes to transportation, Megan Patton-Lopez observed that: "not everybody will have a car whenever they need it....It'd be nice that if ever you were to implement a program like this [FTFL] you're able to be as close to where the participants live as possible so that they could just walk." Additionally, not all classes or events offer childcare. Amanda Klein remarked that "most

families have children that they can't leave at home or don't have access to baby sitters" and that that is a major barrier to participating.

Other barriers that were discussed by participants included time, work, family rituals, and chaos and stress. Mark Edwards mentioned that, especially among food-insecure families, finding the time to cook a meal at home after working long hours is difficult. Edwards added that: "I think, when you're in a big hurry and you're working 8 hours a day and you're rushing home to pick up your kids and all that, you're just trying to get them fed." If families are struggling to make time for cooking at home, it makes sense that they do not have time in their schedule for a once-a-week cooking and nutrition education class. Edwards also made an interesting point about the ritual of eating together as a family that may not exist for food-insecure families. Edwards said:

It strikes me that there's something there in the rituals of the families that need to be taken into account for why food-insecure families...I wouldn't say they're not able, because, yes, they physically might be able to go down and buy the fresh fruit or vegetable and carry it back and even come up with the money for it. But there's just some way in that it's not built into the rhythm and the lifestyle that is part of what it means to be a single parent, especially the low-income single parent.

That cooking at home is not "built into the rhythm and lifestyle" of single parents creates a significant barrier not only for making healthy meals at home but also for their participation in classes. Learning to cook from scratch may not be seen as relevant or feasible for these busy, single-parents because they do not have the time for it.

Chaos and stress in the lives of low-income and food-insecure families is another important barrier to participation. Janice Gregg noted that "their lives tend to be very complicated and disrupted, when you look at a lot of the low-income families. I wouldn't say every low-income family is that way but in many of them it is that way." Gregg explained further

that these families may be worrying about larger issues such as how they will make it court or how they are going to get to the grocery store. Leslie Richards echoed Gregg's observation and commented that: "I think, often times parents might be motivated but they may just not kind of have the personal resources to get it together to follow through." With a life that is full of chaos, stress, and barriers, it becomes very apparent why families are not able to participate in programs even if they have the interest or desire to.

What barriers do public health workers have in creating health program plans for this population?

The most cited barrier for public health workers given by the interview participants was funding. Finding the money to pay for the program as well as incentives for the participating families is a challenge. Similarly, working within in the confines of the grant that pays for a program's implementation can be difficult. Janice Gregg remarked that "the frustrating part many times is...sometimes you're hampered by a set of rules or a grant that will say 'you can do this but you can't do that'... 'this money can be spent for educational materials but not for foods.'" Also, attendance was an issue in particular that came up in a number of the interviews. Leslie Richards describes attendance as a "real challenge with this population" and that one can have a program available but no one attends it. Finally, participants also listed outreach and flexibility as challenges that public health workers experience when designing and implementing health promotion programs.

It is important to note that some barriers go beyond the scope and resources of public health workers and health promotion programs. Many of the causes of food insecurity are deep, enduring structural issues, like housing costs and unemployment. Mark Edwards explained that:

“These [unemployment and housing costs] are big, structural characteristics of the city, county, state that shape people’s lives quite apart from anything that they would wish to do. So, I think that’s a big thing to recognize is that the extent of the problem, that sort of the distribution of these hard choices, is driven by big things way outside of us.... So, I think that’s a thing to recognize, is that we’re trying to help people to adjust to this lousy environment that they’re finding themselves in.

The place for nutrition education and cooking skills program, then, is to help address the everyday consequences and hardships caused by those root causes of food insecurity.

How feasible are nutrition education/cooking skills programs for young families?

The consensus among the interview participants was that nutrition education and cooking skills programs are feasible but are accompanied by their own set of challenges. Participants listed funding, attendance, sustainability of the program within the community and collaboration with other agencies as particularly challenging to successfully implementing programs. Megan Patton-Lopez explained in her interview that she believes that programs like Full Tummies, Full Lives can be successful if time has been spent working on collaborating with other agencies. Patton-Lopez also observed that there is additional challenge of how best to keep programs going. She said: “That’s the challenge with education programs is how to sustain them. How do they become part of a community? How do they lead to maybe the next level?” Leslie Richards remarked that nutrition education programs tend to do better when they can be implemented through an existing program.

In your opinion, for young families facing food insecurity, what areas should public health programs address first? (i.e. What is the most pressing needs for these families that a public health intervention can address?)

The majority of participants said that teaching families to “cook from scratch” should be the area that public health programs address first. Housing was the second most common answer

given by participants. Leslie Richards noted that the benefits of cooking from scratch outweigh the potential costs. Though it may require more time to be invested at the beginning, cooking from scratch tends to be a cheaper and healthier way to eat. Richards commented that “the more you can encourage people to cook from fresh ingredients and from bulk supplies, I think the healthier their diets will be.” Janice Gregg also suggested that teaching families to cook from scratch be a top priority of public health programs. She reiterated that buying in bulk and buying less prepared foods can stretch food dollars many times over. Teaching these kinds of skills has an additional benefit: it helps encourage behavior change. Liv Gifford explained that “There’s nothing like demonstration to help people change. There’s nothing like seeing someone actually cook a pot of rice...” Teaching families to cook from scratch and providing them with the opportunity to not only see a meal be prepared but to have helped prepare it, provides them with tangible skills and tools that they can take home with them.

Housing, on the other hand, is a need that poses significant challenges in addressing. It is a very significant barrier to eating healthfully. Megan Patton-Lopez explained that “housing is probably their greatest issue for these families especially in our area [Benton County/Corvallis]...Many families that we’ve talked to it’s not uncommon for families to pay more than 50% of their income on housing.” If families are spending more than half of their income on food, that means there is even less money available for nutritious and healthy foods. Mark Edwards explains this struggle between rent and food:

If you just go with the cost of housing, it eats up the largest fraction of their income. And, they really are not in a position to decide to not pay it...where [as] your food budget, no one shows up and says ‘you must feed your children better.’ Unfortunately, people end up making decisions about food because it’s in their control a bit more in the way they spend money on it.



What was suggested by Edwards and Patton-Lopez, as well as among the other participants, was that a possible solution to these needs could be met through collaboration. For example, program developers could address housing issues by incorporating information on low-income housing or housing assistance into the nutrition education curriculum. Finally, in addition to learning to cook from scratch and help with housing, participants suggested coordination of resources and family-focused teaching as areas worth addressing as well.

### *Discussion*

The goal of these interviews was to determine if Full Tummies, Full Lives (FTFL) is relevant for food-insecure families, addressing areas that other available programs do not; if FTFL focuses on the correct needs of this population, and if the components of FTFL are feasible. The limitations of this study are also explored.

### Program Relevance

In listening to the participants, it appears from their comments that programs like Full Tummies, Full Lives are relevant for families, especially food-insecure families. Every participant acknowledged that these families, while knowledgeable about basic nutrition and what they should be eating, could use additional nutrition information as well as the resources and knowledge to “cook from scratch.” As Amanda Klein noted: “it’s actually the implementation or how to implement it that they don’t know how to do.” Full Tummies, Full Lives (FTFL) address these needs with the nutrition education curriculum at the core of the program.

However, there are two ways in which Full Tummies, Full Lives (FTFL) could be more relevant to food-insecure families in the county. First, the classes can address additional topics of

interest to the families aside from nutrition education and cooking from scratch. Liv Gifford made the point that if one designs a program that addresses specific topics of interest for the families such as Type 2 diabetes, obesity, or heart disease in addition to nutrition, the program becomes more relevant to the family and they would be more likely to participate. FTFL could arrange the class curriculum such that each class addresses a particular health issue related to nutrition such as how to reduce one's risk for Type 2 diabetes and heart disease or how to make healthy choices while eating out. FTFL could accomplish this by talking to families prior to the program beginning about what nutrition or health concerns they have. Those concerns can then become topics for the classes to discuss. This would also be the opportunity to invite community partners and guest speakers to the classes to inform families about available resources. Hopefully, incorporating the families' concerns into the curriculum would build their interest in the program and encourage their participation.

The second way in which FTFL could be more relevant is to make the classes focused on the children. Tina Dodge-Vera made an important observation in her interview about the Latino families she has worked with. She explained that, in talking to these families, she learned:

They want not just childcare for their kids. They want a positive experience as well, even for their preschoolers. They want a structured, educational opportunity for them so that...their kids aren't being sacrificed at the cost of them being educated....They want their kids to make their best use of their time as well.

Many of the other participants also stressed the importance of including the children in the learning process. FTFL attempted to incorporate the children in the classes by providing childcare for the younger children and allowing the older kids to participate with their parents. However, the classes were designed for the parents to provide them with the nutrition information and cooking skills. I think Dodge-Vera's observation is a very important one. Health promotion programs designed to serve families need to consider the family as a whole and think

about educating the family as a unit. By providing childcare as well as educational opportunities for the kids, participating parents can know that their kids are being taken care while they focus on the class. If FTFL can make this adjustment to the curriculum, it would make the program more relevant and accessible to the families.

### Meeting Families' Needs

It was clear from the participants' answers that food-insecure families and low-income families in general, experience a lot of barriers in accessing and participating in health promotion programs. Transportation and childcare were the two most commonly mentioned barriers in the interviews. Additional barriers included housing costs, employment (working full time or multiple jobs), and time. In sum, these families' lives, as Janice Gregg described in her interview, are "very complicated." Gregg said:

They may say that, 'yeah, yeah, sometimes we go to bed hungry' and 'yeah, sometimes there's not enough food' but there are bigger issues in their lives that they're having to deal with... 'Okay, am I going to make it to court tomorrow?' .... 'Do I have a vehicle to get to the store?' Their lives tend to be very complicated and disrupted...

These barriers have a major impact on a family's ability to access the services they need.

Full Tummies, Full Lives (FTFL) has a number of features designed to alleviate the barriers listed above. Childcare was to be provided at each of the classes so that families would not have to find outside care. This would also, hopefully, prevent families from having to miss classes or events because they could not find someone to watch their kids.

This program could better address the needs of food-insecure families in a number of ways. First, FTFL could be based out of one community rather than focusing on the entire county. Attempting to serve all of Benton County would be a very difficult task and would be

very costly. Moreover, it would be hard for families living in the more rural areas to travel to the Corvallis Boys and Girls Club to come to classes. Secondly, the nutrition education and cooking classes could be held in one central location, preferably a place where families already gather. This is beneficial for two reasons: one, families would already be familiar and comfortable with the location and two, it would be close to where they live, potentially alleviating the transportation barrier that many families face. Transportation, however, is a difficult barrier to address. Ideally, FTFL would have the ability to provide rides to those families that do not have available transportation to and from the classes. What FTFL, or any other health promotion program, can do is address the transportation barrier indirectly by arranging classes at locations that are easily accessible by bus, or are within walking distance of many of the families. Finally, FTFL could better address the underlying structural barriers that contribute to food insecurity such as high housing costs and unemployment. To do so, FTFL could build into the program health access coordination services for the participating families. This would allow program staff to talk with families about the services they are receiving and what others they could qualify for as well as connect them to additional resources in the area such as Willamette Neighborhood Housing or Benton Furniture Share.

Finally, interview participants stressed that health promotion programs need to meet families where they are at and to acknowledge the positive things they are doing. Moreover, it is important to understand that for many families, having any food is a good thing even if it is not the most nutritious. Amanda Klein explains that:

[With] High risk families, if they don't even have housing or they don't have diapers or any of those basic needs, nutritious food is going to be on the last of their list, especially if they can go to the store and get something cheaper that's not necessarily as nutritious but is still food for their kids. And then they can use that extra money towards rent or doctor bills or something like that. I think that's a big thing.

In addition to this understanding, it is vital that program staff be sympathetic and understanding to the larger struggles that these families are facing. Janice Gregg mentioned that programs need to avoid an “us and them” mentality which can alienate families. Moreover, Gregg suggested that programs should train community members so that “it’s not this highly educated, professional coming to tell me what I’m doing wrong and what I need to do better.” FTFL does not address this barrier as best as it could. Originally, FTFL provided a training session for community partners only so that those partners could then go out and talk about the program with the families they work with. Those conducting the classes would still be health professionals. One potential change FTFL could make is to reach out to local community members or local professionals that families would be familiar and comfortable with to lead the classes.

### Feasibility

The consensus of the participants was that programs like FTFL are feasible but with a few caveats. These include funding, collaboration and participant’s follow-through at home with the skills they learn at class. With FTFL’s current budget of over \$200,000 for the entire fourteen months of operation, it may be the most unfeasible element of the program. Megan Patton-Lopez made an important point in her interview about FTFL’s budget:

I don’t know where you would get \$217,000! That’s really high... I can see this project going, they’ll be like ‘okay, you can do this. I’ll give you \$40,000.’ You can do this project for \$40,000. And then you have to be really creative because you have to pay for your time first. Be really creative on how you partner with others... [and] really maximizing the resources that are already out there so that...you don’t have to do everything from scratch.

Although the grant I had selected to fund this program had an upper limit of \$500,000, I had assumed that I would receive nearly half of that money to fund FTFL when that may not be how much I would receive. What would need to be done is to adjust the budget so that FTFL could be

run as cost-effectively as possible and there are a number of ways this can be done. First, focusing on one community instead of the whole county would reduce costs. There would not be a need for a large program staff (wages for staff members account for the largest portion of FTFL's budget) and material costs for events and classes would go down. Second, by working extensively on collaborating with other agencies, FTFL could rely on donated space and materials. Moreover, collaboration could help with finding volunteers and professionals that are willing to help at classes or events for free. To have donated time, food and space would dramatically reduce program costs. Third, FTFL could cut back on the number of classes in the nutrition education and cooking skills series. Tina Dodge-Vera explained in her interview that in her work it has been difficult to get families to attend long-series classes (FTFL's nutrition education/cooking skills curriculum is a ten-week series). Dodge-Vera explained that for her work, a program has to have at least four classes to be called a series. By reducing the number of classes into five classes over five weeks, FTFL could not only save money, but could potentially see more families attending individual classes and perhaps even returning for the whole series.

From the interviews, it seemed that participants believed that one of the important keys to increasing program feasibility is collaboration. Megan Patton-Lopez believes that programs "can do well when there's been...a lot of work on the front end, on collaborating." Collaborating with other agencies working in the same area is very beneficial. First, in talking to those other agencies, one can determine which populations are being served and by whom, and where there are unmet needs and underserved groups. This would also help in avoiding duplication of services. FTFL would be more likely to be funded, and to be more feasible, if it offered services that no other program currently targeting low-income and food-insecure families provides. Collaborating and building relationships with organizations in the community would help in

determining what areas FTFL can address specifically. Second, building relationships with other agencies could mean that materials, space, incentives, time and volunteers for FTFL could be more readily, and easily, available. In the original program plan, FTFL had a five day training course for community agencies and resources, called “community partners and stakeholders,” to introduce the program to them, explain the objectives and goals, and present the components. However, FTFL did not allot time prior to program implementation to specifically focus on collaboration.

One of the greatest challenges for public health programs is demonstrating the impact that the program had on the participants. It is difficult to measure behavior change in individuals because it occurs over a long period of time. Families may take in the information provided by FTFL but upon follow-up after the program, may not have changed their behaviors. Would that mean that FTFL had not been successful or could it have been other factors in that particular family’s life that had made it difficult for them to use the knowledge they gained? Amanda Klein explains that “it’s the follow through at home is where it kind of falls apart...They get this information and it’s great and they’re really excited about it but then they get home and life happens...and they just kind of go back into their old habits.” With this in mind, FTFL could build into the program, as Klein suggested later in her interview, a follow-up component, such as a home visit, to check in on families. FTFL has no way of knowing what tools families have available to them in their homes. For example, does the family have a stove or are they using a hot plate? Do they have freezer space or enough counter space to cook? A home-visit before participating in the program would be a great way of evaluating the needs of the families and determining where they need the most help. A follow-up visit at the end of the program would

show whether or not they are applying the skills they gained and what further resources they need.

It is worth noting that FTFL could be feasible as only the nutrition education and cooking skills curriculum. The FTFL curriculum by itself could be used by existing agencies and organizations around the county to help families. Though this would drastically change the overall scope of the program, there are a few benefits. First, the program could reach more families as a curriculum. In its original form, FTFL would have had to perform extensive outreach in the community to engage families. As only the curriculum, FTFL could approach organizations already working with the target population to implement the nutrition education and cooking skills curriculum. This is beneficial in that the families already have an established relationship with that agency or organization and they may already be attending classes through that organization. The likelihood of FTFL's success could potentially be higher this way. Second, all of costs associated with staff wages, rental spaces, and materials would be dramatically reduced. This would allow the program to be funded on a much smaller budget than originally planned. Finally, reducing the program to the curriculum could also reduce the likelihood of FTFL duplicating services that other existing programs or agencies provide.

### Limitations

This feasibility study is not without limitations. Though the participants interviewed in this study have many years of experience working with low-income families, food security, nutrition education and family health, they are not representative of the target population that FTFL is designed to reach. What they know about the barriers, needs, and challenges of families has been gathered from experience and research. To understand the true relevance of my



program, I would need to interview those directly affected by food insecurity. The participants in this study can make informed guesses about what families need. To address this limitation, families within the target population of FTFL should be interviewed and their responses compared to those provided by the participants in this study.

Another limitation is that my sample size of interview participants was very small. I interviewed seven people. To achieve a more in-depth and comprehensive idea of feasibility, more individuals would need to be interviewed. Additionally, a majority of the participants were affiliated with Oregon State University (OSU) or OSU's Extension Service. This could potentially cause some sort of bias in the information provided by the participants. Though, I believe in the case of these interviews, any bias would be very minimal. To prevent this kind of bias, additional participants could be interviewed who are not affiliated with OSU but who still work in nutrition education and/or food security.

## CHAPTER 4

### Proposed Changes and Directions for Future Research

#### *Introduction*

The key to developing effective health program plans is to be continuously evaluating all aspects of the program from the significance of the issue to the components of the program, and to the implementation of those components. Although Full Tummies, Full Lives (FTFL) could not be implemented for this project to see how it could impact food-insecure families, the goal was to evaluate it still to see what its potential for influencing change and health could be. The answers given by interview participants provided evidence for areas in which FTFL was strong and filled a niche not yet occupied by other programs but also where FTFL could be changed and improved. The participants' responses were used to evaluate the components of FTFL, the program's budget, and the implementation of FTFL. What follows below is a series of changes that should be applied to FTFL so that it could better, and more effectively, serve food-insecure families. Additionally, directions for future research and health program development are also discussed.

#### *Proposed Program Changes*

The first, and most drastic, of the changes to Full Tummies, Full Lives (FTFL) would be to change the location of the target population of the program. Originally, FTFL was designed to serve all food-insecure families in Benton County, Oregon. I was asked by Janice Gregg in her interview why I chose Benton County as a whole and not a smaller population within the county. I responded that I wanted to affect the most change and impact as many families as possible. The advice she gave was to "pick a population in one area where you can really make an impact" and

that “you work from neighborhood to neighborhood and pretty soon those neighborhoods then become a community.” What I realized from that comment was that starting small and working outward would, in the end, serve more families and have a larger impact and longer lasting positive effects on families.

With that in mind, FTFL would be better implemented in one of the smaller, more rural towns in Benton County such as Monroe or Alsea. Working in one, smaller community rather than the whole county has many benefits and can address a number of the barriers discussed in the interviews. In addition to providing childcare and interactive family-oriented classes, implementing FTFL in one of the rural communities in Benton County would make it more unique among the other available programs targeting this population. The more unique FTFL can be, the more likely it is to be funded as well as better attended by families because it would not be duplicating the services already provided by existing programs. Moreover, participants would have to travel less distance to participate in the classes and events. This could address the barrier of transportation. Originally, FTFL’s events were taking place at the Boys and Girls Club of Corvallis. Families from Alsea, Monroe and Philomath could be less likely to attend because of transportation issues and time constraints. However, if the program was based in Monroe and designed to serve families living in Monroe, the events and classes would be taking place within the town and would be easier for families to attend.

The next change to FTFL would be to the fifth component of the program: enrollment in free- and reduced- school lunches. The intent of this component in the original version of FTFL was to have volunteers, interns and staff members visit every family in Benton County with children who qualified for school lunch program and help them complete the paperwork. This component would not be feasible for a number of reasons. Not only is it a lofty and almost

insurmountable goal, it also poses a confidentiality conflict. Janice Gregg informed me in her interview that information about who qualifies for free- and reduced-school lunches is confidential and that schools cannot give out that information. To successfully implement this component of FTFL would be very difficult.

Therefore, to address this issue, this component will instead be replaced with a “health access coordination” component. This component would involve connecting participating families with services that they qualify for, such as SNAP or WIC, as well as providing referrals, assisting in filling out the paperwork, and connecting families to housing assistance, furniture shares and other organizations. Another reason behind this change in components was a comment by Megan Patton Lopez. Patton-Lopez explained that “it’s probably not because they don’t know how to cook” that families are food-insecure. There is a need for other resources beyond nutrition education and cooking skills. To do so requires extensive outreach and partnerships. She, as well as other participants, stressed the importance of developing strong collaborations with community partners such as the county health department, university extension programs and community food gardens as well as English language classes and General Education Degree (GED) classes, churches and food banks. Building these relationships prior to the program’s implementation not only strengthens the program but provides the opportunity for participating families to connect with those resources as well.

Another change to FTFL would be to host the classes at a community center, school or church rather than at a potentially unfamiliar location in Corvallis. This will be much easier to apply and implement if the program is conducted in one town like Monroe or Alsea. It became clear in the interviews that participants believed that the best way to reach families and get them to participate was to have the classes and events at a place where they already gather. Liv Gifford

described one of her experiences with nutrition education programs in her interview and if given an opportunity to try again, she noted: “I would hope that we could somehow go to a place where people are already gathering and do it there so that there’s minimal effort on their part. They’re already familiar with the environment and they’re already going there, they already have transportation there...” These families, as all of the participants explained, have so much going on in their lives that food and nutrition education programs tend to take on a low priority. Having to drive or take the bus to an event at an unfamiliar location can be particularly cumbersome and could cause families to not participate. This change makes the program more accessible to families and helps to reduce some of the barriers those families experience.

#### *Directions for Future Research*

Food insecurity is a multifaceted issue that is impacted by many types of factors. Some factors are local such as lack of access to a free meal site or a well-stocked grocery store while others are deeply rooted in policy and whose impact can only be seen over long stretches of time. As Mark Edwards pointed out, “hunger is a political issue.” However, that does not mean we are without the resources, ingenuity and motivation to affect change in our local community. In talking with the participants, it was apparent to me that the need and the interest are there for families for eating healthy and cooking at home. What future research and health programs should look at is how best to give families the resources and tools to do it. Moreover, these programs should look at how they can support the local food system at the same time. Many participants emphasized the importance of connecting families to farmers and local farmer’s market as well as to community gardens. This provides the opportunity to teach families about where their food comes from and how they can grow their own fruits and vegetables at home.

Additionally, future research and programs should look at how they can orient nutrition education around the whole family. Designing classes around the family instead of focusing solely on the parents provides the opportunity to affect two generations at once. Including children in the learning process allows them the opportunity to explore and to develop life skills that they will be able to use as adults. This would also help foster family cohesiveness and give families the opportunity to work together positively as a unit. Finally, all programs designed to help food-insecure families should include some type of coordination of services. Food insecurity is not simply caused by a lack of cooking skills. It is influenced by one's employment status, housing costs, medical bills, childcare and a whole host of other burdens on families' time and pay checks. Connecting families with job readiness services, food banks, SNAP, low-income housing assistance, furniture shares and parenting classes would be invaluable. Any help these families can receive that would alleviate the strains on their income means that they have more to spend on food. Access to these resources would allow families the opportunity to make food a priority.

### *Conclusion*

At times, stopping hunger can seem like an insurmountable task. Often we feel like it is beyond our control, leaving us feeling angry and sad. We cannot allow ourselves, as public health workers, as nutrition educators, or as concerned community members, to be made hopeless by hunger. There is much that we can do to change the lives of those affected by food insecurity. Right now there is a very apparent need—Oregon is one of the nation's top five hungriest states (Kempe-Ware, Chanay, & Edwards, 2010) and the rate of food insecurity continues to climb each year—and there is an interest among families for cooking skills and nutrition education. These two conditions together indicate the need for an effective health

promotion program to provide families with the resources to reduce their food insecurity. These interviews have shown me that programs like Full Tummies, Full Lives are relevant and needed, and when they are delivered effectively, and in collaboration with community partners, they can have a positive impact on families. There are many barriers to their success and it can be difficult to reach those families that are really struggling, but these cannot be reasons to give up. The best option is to try, and keep trying. Full Tummies, Full Lives may not be the answer to food insecurity, but it is an attempt worth pursuing.

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## APPENDIX

## APPENDIX A

### Full Tummies, Full Lives Program

#### *Introduction*

Full Tummies, Full Lives is a program that I wrote for the writing intensive course, H476: Health Program Planning and Evaluation, at Oregon State University in fall term 2011. The formatting and information included, such as the predisposing, enabling and reinforcing factors, program components, theory and models, budget, and implementation and evaluation timelines, were required for each program created for this class.

Food insecurity is a serious public health concern and it is a problem that is becoming more prevalent in the United States, particularly in Oregon. While many of the causes of food insecurity, like poverty or unemployment, are difficult to change, there are some factors that can be changed to improve the health of families experiencing food insecurity. Knowledge about childhood nutrition and improving cooking skills are two such factors that a public health program can address. The contribution Full Tummies, Full Lives (FTFL) will strive to make is to provide a way of addressing the needs of food-insecure families that encourages and promotes healthy eating habits while giving families back some control over their health. In utilizing the Theory of Planned Behavior, FTFL addresses the behavioral and social barriers to eating healthfully while experiencing food insecurity. The five components of FTFL are designed to promote healthy eating and wellness, to educate families, and to foster the growth of support networks between families and the community. It is the hope of Full Tummies, Full Lives that through community nutrition education and skill-building cooking classes this program will

promote self-efficacy, build social support networks, and ultimately improve the nutritional value of meals eaten by families in Benton County, Oregon.

### *Mission Statement, Goals & Objectives*

#### Mission Statement:

The mission of Full Tummies, Full Lives (FTFL) is to improve nutrition among children in families who are experiencing food insecurity and hunger through education, skill building and community support.

Goal: To increase the nutritional value of meals for families with young children experiencing food insecurity and hunger in Benton County, Oregon.

### *Predisposing, Enabling & Reinforcing Factors*

There are many factors that impact the ability of families experiencing food insecurity and hunger to provide nutritionally adequate meals for themselves and their children. A listing of these factors is presented below.

#### Predisposing Factors:

Predisposing factors include an individual's knowledge, beliefs, attitudes, and perceptions about a health behavior, in this case nutrition and cooking. Below is a list of some of the predisposing factors that young families may experience that impact their ability to eat healthfully:

- Beliefs about the affordability of healthy food options such as fruits, vegetables, and meats.

- Lack of knowledge about the importance of early childhood nutrition and the effects that poor nutrition has on children's school performance and behavior
- Lack of knowledge about food preparation or cooking meals
- Beliefs about the costs of cooking such as time, money, and effort
- Uncertainty about how to budget for food expenditures

#### Enabling Factors:

Enabling factors are those factors that impact an individual's ability to perform a health behavior such as the availability of, and access to, resources; skills, laws and policies. Some examples of enabling factors that families may encounter are provided below:

- Lack of access to well-stocked grocery stores, community or home gardens, and farmer's markets
- Uncertain quality or quantity of food in emergency food boxes
- Lack of available cooking or nutrition education programs
- Inadequate Supplemental Nutrition Assistance Program (SNAP) benefits or running out of benefits
- Lack of knowledge about public health programs such as SNAP or Special Supplemental Program for Women, Infants and Children (WIC).

#### Reinforcing Factors:

Reinforcing factors include social and environmental factors such as incentives and disincentives, social benefits, and rewards. Below are some examples of reinforcing factors:

- Feelings of frustration or loss of control due to one's food insecurity (Hamelin, Habicht, & Beaudry in Childhood Hunger Coalition, 2011).

- Personal and/or child food preferences may not include fruits or vegetables
- High costs of rent, gas and other monthly expenses (disincentive)
- Improved health and well-being (incentive)

### *Theories & Models*

The underlying theory of Full Tummies, Full Lives is the Theory of Planned Behavior. This theory examines how an individual's beliefs about a health behavior, about what is normative relative to the behavior and their actual versus perceived control of the behavior interact together to influence the individual's intention to act and their subsequent action. This theory deals with the concept of "incomplete volitional control," meaning that the individual does not have complete control over a certain behavior (McKenzie, Neiger & Thackeray, 2009, pp.169).

Another key component of this theory is perceived behavioral control. Perceived behavioral control can be thought of as "the perceived ease or difficulty of performing the behavior and is assumed to reflect past experience as well as anticipated impediments and obstacles" (McKenzie, Neiger & Thackeray, 2009, pp.169). The effect of perceived control is significant. For example, an individual can have strong attitudinal and normative beliefs about the health behavior but if they feel they have no control over the health behavior, then they have less intention to do the behavior (McKenzie, Neiger & Thackeray, 2009, pp.169).

This theory works well for Full Tummies, Full Lives. Some factors that contribute food insecurity and the struggle to eat healthy, such as unemployment and poverty, are not always controllable or changeable by families. These factors impact an individual's beliefs about their capability of changing their situation or their behavior. However, there are some factors that are

controllable, such as increasing nutrition knowledge and improving food preparation and cooking skills. It is those factors that Full Tummies, Full Lives has chosen to address.

### *Objectives*

Below are the program objectives for Full Tummies, Full Lives. They include process, behavioral and learning objectives.

#### Process:

1. Two months prior to program implementation, FTFL program workers will provide informational fliers to 75% of participating community partners to extend to families within their programs.

#### Behavioral:

1. By the end of the program, participating families will have increased the amount of fruits and vegetables consumed in their household by 25%.

2. By the end of the program, participating families will have increased the number of meals made at home by 25%.

#### Learning:

1. After three months in FTFL, participating families will be able to identify three benefits of good childhood nutrition.

2. After three months in FTFL, participating families will be able to identify three ways to eat healthy on a budget.

## *Design & Implementation*

### Component 1 - Health Communication Campaign

The first component of Full Tummies, Full Lives will be a health communication campaign. The health communication campaign will have four parts: (1) a week-long (five days) informational training course for partner organizations already working with families in Benton County to educate them about Full Tummies, Full Lives and how it will benefit their families; (2) a three-month mass media campaign prior to the program kick-off that includes flyers and pamphlets distributed throughout the county at, for example, pediatrician's offices, day-care centers, grade schools and program presentations at parenting classes and health and community fairs; (3) a kick-off community fair with representatives from organizations active in the county, demonstrations by nutritionists and chefs, and fun educational activities and games for families; and (4) continual advertising for the program by stocking flyers and handouts in the community.

### Component 2 - Nutrition Education and Cooking Skills Curriculum

The core of this program is a once-a-week, voluntary ten week nutrition education and cooking skills curriculum. Families can attend as many, or as few, of the classes as they want. The classes will be held once a week at the Boys and Girls Club and child-care will be provided for those families with kids who are not old enough to participate in the activities. The course, as well as any materials such as worksheets, will be available in English and in Spanish. The first five weeks of the course will focus on childhood nutrition and the importance of healthy meals, utilizing educational materials from the Center for Disease Control and Prevention's (CDC) "Explore the World with Fruits and Vegetables" campaign. These classes will be mostly interactive, with the majority of the time spent in group discussion. The instructor or guest



speaker will lead discussions about nutrition and eating habits and will answer any questions or concerns that come up. The last five weeks of the course will focus on building food preparation and cooking skills. These classes will teach families how to prepare fresh fruits and vegetables, techniques for storing or freezing food, cooking safety, and how to improvise recipes on a limited budget.

### Component 3 - Wellness Check-Ups

The Wellness Check-Ups component of Full Tummies, Full Lives involves free check-ups performed by local pediatricians. Three separate clinics will be held throughout the course of the program and families can sign up for any of the three clinics. Each clinic will be held at the Boys and Girls Club. Signing up for the wellness check-ups is completely voluntary. The doctors will measure children's height and weight, teeth, reflexes and overall health as well as discuss childhood nutrition with the parents and child. These check-ups are meant to increase access to health care services for those families that do not have health insurance.

### Component 4 - Social Support and Networking

Part of the mission of Full Tummies, Full Lives is to improve childhood nutrition through community support. This component of the program is designed to help parents connect with other families, develop friendships, and create support networks. Full Tummies, Full Lives will facilitate this networking by hosting "Lunches in the Park" every Thursday during the course of the ten week program. Food for each lunch will be donated by community partners or organizations or provided by the Full Tummies, Full Lives staff. The families will have a chance to help prepare the meals. Families will receive a healthy lunch and games and activities will be

provided for the children. Parents will be encouraged to meet other parents, make play-dates, and share stories or experiences.

#### Component 5 - Enrollment in Free- or Reduced-School Lunch Programs

This component of Full Tummies, Full Lives is designed ensure that all eligible children in Benton County are accessing free- or reduced-school lunches. This process would involve contacting as many families with eligible children as possible in each of the school districts and helping them fill out the paperwork to enroll their children. However, this component of the program will be time-consuming and the goal of all children may not be feasible.

#### Barriers and Obstacles

There are a number of barriers that may act to impede the success of Full Tummies, Full Lives. The first is participant recruitment and participation. While this program is designed to help all families in Benton County experiencing food insecurity, it may be that the program is only able to serve those that are willing to participate, inadvertently excluding families who are in need but who are unwilling or uninterested in the program. Full Tummies, Full Lives hopes to address this issue by involving community partners that have already established relationships with families in the county and who can promote the program to them. Moreover, this program will also utilize a robust mass media campaign in hopes of reaching as many families as possible and promoting interest among them.

Another barrier to implementing Full Tummies, Full Lives is access. Some families may not be able to attend the classes, lunches in the park or the wellness check-ups because they do not have transportation or available child care, or because of scheduling conflicts. Full Tummies, Full Lives hopes to address the issue of access in a few different ways. First, the nutrition

education and cooking skills classes are going to be offered in locations accessible by public transport. Second, the courses will be offered at the same time and on the same day each week so that families can plan around the classes. Third, by conducting the ten-work course in English and in Spanish, we can better serve the priority population and ensure that the course material is communicated in the language most familiar to the participants. Finally, child care will be offered during each of the classes by volunteers or interns (who will have all undergone background checks) of the Full Tummies, Full Lives program.

### Timeline

A complete timeline for the implementation of Full Tummies, Full Lives is located in Appendix B.

### Budget Explanation

Full Tummies, Full Lives will theoretically be funded entirely through a combination of federal or state grants, gifts from community members, organizations or businesses, and donations. There is one grant, in particular, that would be able to pay for the entirety of Full Tummies, Full Lives and it is provided by The National Institute of Food and Agriculture (NIFA). The program is called Community Food Projects Competitive Grants Program (CFPCGP). According to their grant application (National Institute of Food and Agriculture, 2011) :

The primary goals of the Community Food Projects Competitive Grants Program (CFPCGP) are to: Meet the food needs of low-income individuals; Increase the self-reliance of communities in providing for the food needs of the communities; Promote comprehensive responses to local food, farm, and nutrition issues; and Meet specific state, local or neighborhood food and agricultural needs including needs relating to: Infrastructure improvement and development; Planning for long-term solutions; or The creation of innovative marketing activities that mutually benefit agricultural producers and low-income consumers.

The budget estimates the total spending and cost of Full Tummies, Full Lives. Total costs are broken down by each of the components of the program. Since this program will be implemented in Benton County, Oregon, estimates for rental spaces correspond with spaces available in Corvallis such as the Corvallis Boys and Girls Club and the Benton County Fair Grounds; estimates for food costs were generated as if New Morning Bakery was catering; and printing costs were estimated from Staples' website which offers online printing of brochures, posters and flyers. The complete budget can be found in Appendix C of this paper.

### *Evaluation*

Evaluation is key to any public health program. Evaluation determines if program objectives and goals were met, how effective the implantation of the program was, what could be improved and what components should be included in the future. Full Tummies, Full Lives will conduct two separate evaluations: a process evaluation, to assess the quality of the program and if process objectives were met, and an impact evaluation, to determine if the program was successful in helping the priority population.

#### Process Evaluation

For each of the components of FTFL, there will be a protocol check list that includes all of the tasks to be completed. Volunteers, interns and staff, when assigned to a project, will follow the check list, signing off after each task has been completed. For example, for the health communication campaign, there will be deadlines and goals for the distribution of flyers and pamphlets. Volunteers and interns will keep track of the locations, dates and the number of flyers that they distribute. The protocol check list evaluates how well FTFL constructed our timeline of events and if we budgeted enough time and resources for each component.

Attendance will be a large part of the process evaluation for the rest of the components of FTFL. The community partner training will be evaluated based upon the number of partners attending each of the training days and their responses to a survey on the final training day. This survey will help FTFL evaluate the effectiveness of the training, what information was deemed necessary or unnecessary by the partners and what improvements could be made. The kick-off event in June will be evaluated based upon the number of people who attend the event as well as how many sign up for follow-up information about the program. The nutrition education and cooking skills curriculum component of FTFL will be evaluated by measuring the number of families attending each class. Additionally, the number of worksheets completed in class will be evaluated. The wellness and dental check-ups as well as the “Lunches in the Park” will be evaluated the same way as the classes. Attendance will determine how well the clinics and lunches were advertised, how interested the population was in the events and how effective FTFL’s planning of the events was.

After the program itself is evaluated, the process evaluation will extend to the volunteers and interns of FTFL. Interns and volunteers will be required to keep timesheets of the hours they spend at the program and a description of their activities. They will turn in a timesheet at the end of each month. These timesheets will help in determining which tasks were completed and approximately how much time and effort was required to complete them. Additionally, these timesheets would fill the requirement of the grant that funds FTFL of documentation of volunteers. Also, our interns and volunteers will be surveyed to learn about their experience, what drew them to the program, how effectively they felt the program was run, how they would rate FTFL as a whole, and what areas needed improvement or changes. Volunteers and interns

will complete this survey on paper upon ending their time at the program. They can opt out of the survey if they choose to.

Finally, FTFL staff will fill out a survey evaluating their experiences working in the program. The staffers can comment on the difficulty of tasks involved in program implementation, if they needed more or less time to complete their projects, what they think could be improved or changed and how they felt about the program overall. The staff's responses will be valuable to the program because they can provide opinions on the implementation process, including budgeting and planning, as well which components need revision and which were most effective.

### Impact Evaluation

For the impact evaluation of this program, FTFL will utilize a non-experimental design. A non-experimental design means that there are no "control" or "experimental" groups. All those that participate in FTFL will receive the intervention. Non-experimental designs have three components: a pre-test, an intervention, and a post-test. The design is illustrated thusly, with  $O_1$  being the pre-test,  $X$  representing the intervention or program, and  $O_2$  being the post-test:

$$O_1 \quad X \quad O_2$$

For FTFL, the pre-test will be a survey designed to investigate family food security and eating behaviors. For example, determining how often families relied on emergency food boxes, free meal sites or food pantries, how often they skipped meals to make food last, if the family worried about not having enough money to buy food, how often they made meals at home and if those meals included fruits and vegetables. The survey will be self-created by FTFL and will consist entirely of multiple choice questions. Some sample pre-test questions are included in the

appendix of this paper. The pre-test will be administered the first week of class. After the ten-week curriculum has been completed, the same survey, or post-test, will be administered. The post-test will differ slightly from the pre-test in that it will include a “comments” section for participants to write about their experiences. The two tests will be compared and analyzed to determine the amount of change, if any, that occurred and in what areas changes or improvements were seen. The results from these surveys will help FTFL evaluate the effectiveness of our program.

This kind of design, though, is not without limitations. First, it is not an experimental design so FTFL cannot prove that any changes seen in participants’ behavior or health were caused by the program intervention. Moreover, it is difficult to control for confounding variables in a non-experimental design. Confounding variables represent factors, other than the program, that explain the changes experienced by participants. One possible confounding variable for FTFL could be that participants received the same information from another program while participating in FTFL. This would make FTFL seem more effective than it truly was.

There is also the potential for challenges to the internal validity of FTFL. A program has internal validity if it can be shown that the program, and not other, outside factors, that caused the changes seen. A possible challenge could be that those participants in FTFL were already knowledgeable or were more willing to change their behavior than participants who qualified to be in the program but decided not to participate. These knowledgeable participants could make FTFL appear less effective because they would be learning less from the program.

### Evaluation Timeline

A timeline for the process and impact evaluations is located in Appendix D. The evaluation timeline will run concurrently to the implementation timeline. The data for the process evaluation will be collected throughout the fourteen months that FTFL will run by program staff, volunteers and interns. Data for the impact evaluation will be collected in June 2012 and in September 2012, corresponding to the beginning and end of the ten-week nutrition education and cooking skills curriculum. All data will then be analyzed and an evaluation report drawn up. The final tasks in this timeline include presentation of the data to stakeholders and community partners, and a final report of the program that is made available to the public. However, it must be noted that this timeline may be subject to change as the program progresses.



## APPENDIX B

*Implementation Timeline for Full Tummies, Full Lives*

The entirety of the Full Tummies, Full Lives program will span fourteen months, beginning September 2011 and ending November 2012. The first nine months of the program, prior to its official kick-off on June 1, 2012, will consist of the tasks listed below:

	= Expected time for completion
	= Actual time for completion

Task	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY
Creation of Program Rationale									
Needs Assessment									
Development of Goals and Objectives									
Design Intervention									
Present Program to Stakeholders									
Present Program to Community Partners									
Obtain funding and support for program									
Design flyers and handouts									
Training for community partners									
Pilot Program									
Refine Program									
Distribute flyers and handouts in community									

The kick off date of June 1, 2012 was chosen because June is National Fresh Fruit and Vegetable Month. The tasks listed below will be completed after the kick-off:

<b>Task</b>	<b>JUNE</b>	<b>JULY</b>	<b>AUG.</b>	<b>SEPT.</b>	<b>OCT.</b>	<b>NOV.</b>
Total Implementation						
Continue distribution of flyers and handouts						
Nutrition Education and Cooking Skills Curriculum						
Wellness Check-Ups						
Enrolling children of participating families in lunch programs						
“Lunch in the Park” events						
Collect and Analyze Data for Evaluation						
Conduct Evaluation						
Prepare and Distribute Evaluation Report						

## APPENDIX C

<i>Full Tummies, Full Lives Program Budget</i>	
	<b>Total</b>
<b>Revenue</b>	
Grants	\$200,000.00
Gifts	\$12,000.00
Contributions/Donations	\$5,800.00
<b>Total</b>	<b>\$217,800.00</b>
<b>Expenditures</b>	
<b>Health Communication Campaign</b>	
Printing costs for flyers and handouts <sup>1</sup>	\$250.00
Room rental for five-day training course <sup>2</sup>	\$500.00
Food and refreshments for training course <sup>3</sup>	\$400.00
Space rental for Kick-Off event <sup>4</sup>	\$315.00
Advertising for Kick-Off event <sup>1</sup>	\$200.00
Posters and decorations for Kick-Off event	\$150.00
<b>Total:</b>	<b>\$1815.00</b>
<b>Nutrition Education and Cooking Skills Curriculum</b>	
Room rentals <sup>2</sup> (\$50 for 2 hours x 5)	\$250.00
Cooking space rental costs <sup>5</sup> (\$60/hour x 5)	\$300.00
Cooking instructor fees (\$40/hour)	\$200.00
Printing costs for worksheets	\$30.00
Class instructor fees (\$20/hour)	\$200.00
Brochures, posters, handouts about Nutrition	Free from the CDC
<b>Total:</b>	<b>\$980.00</b>
<b>Wellness Check-Ups</b>	
Space rental <sup>1</sup> ( \$200 for 8 hours x 3)	\$600.00
<b>Total:</b>	<b>\$600.00</b>
<b>“Lunch in the Park”</b>	
Park reservation fee <sup>6</sup> (\$35 for four hours x 10)	\$350.00
Food costs	Donated by Sponsors
Table clothes, napkins, dishes and cutlery	\$100.00
<b>Total:</b>	<b>\$450.00</b>
<b>Supplies and Equipment</b>	
Monthly rent for work space (\$1,000/month x 14)	\$14,000
Monthly utilities (\$300/month x 14)	\$4,200
Tables and chairs for events	\$400.00
Office furniture and supplies	\$2500.00
<b>Total:</b>	<b>\$21,100</b>
<b>Personnel</b>	
Program facilitator (\$35/hour)	\$78,400
Full time staff (x 3, at \$14.00/hr)	\$94,080

Volunteers/Interns	\$0
Evaluator costs (\$35/hour x 3 months)	\$16,800
<b>Total:</b>	<b>\$189,280</b>
<b>Miscellaneous</b>	
Additional Printing/Copying charges	\$200.00
Additional Rental fees/deposits	\$2000.00
Incidentals	\$1375.00
<b>Total:</b>	<b>\$3575.00</b>
<b>TOTAL EXPENSES</b>	<b>\$217,800</b>

1. Staples.com
2. Boys and Girls Club of Corvallis
3. New Morning Bakery, Catering.
4. Benton County Fairgrounds Facilities: Guerber Hall
5. Oregon State University Student Events and Activities Center, MU East Kitchen Rental
6. Corvallis Parks and Recreation, Rental Facilities.

## APPENDIX D

*Evaluation Timelines*

<b>Process Evaluation:</b>		
<i>Date</i>	<i>Task</i>	<i>Expected Completion Date</i>
September 2012	Recruit program facilitator and staff members	September 2012
September 2012	Conduct Needs Assessment	October 2012
September 2012	Write and submit grant request	September 2012
September 2012	Recruit volunteers and interns	Ongoing
January 2012	Design program flyers and handouts	January 2012
January 2012	Print flyers and handouts	January 2012
January 2012	Distribute flyers and handouts in the community	Ongoing
January 2012	Reserve room for training course and pay deposit	January 2012
February 2012	Recruit class instructors for nutrition and cooking skills curriculum	February 2012
February 2012	Select participants for pilot program	February 2012
February 2012	Print out class materials	February 2012
April 2012	Reserve space for Kick-Off	April 2012
April 2012	Invite community members and organizations to participate in Kick-Off event	May 2012
May 2012	Design and print posters for Kick-Off Event	May 2012
May 2012	Advertise for Kick Off	June 2012
May 2012	Secure sponsors for each “Lunches in the Park” event	May 2012
May 2012	Reserve park space for “Lunches in the Park”	May 2012
June 2012	Reserve rooms for wellness check-ups	June 2012
June 2012	Advertise wellness check-ups	September 2012
June 2012	Call families and set up enrollment in school lunch programs	September 2012
September 2012	Distribute surveys to staff, volunteers and interns	September 2012
<b>Impact Evaluation:</b>		
June 2012	Distribute pre-test at first meeting of ten-week course	June 2012
September 2012	Distribute post-test at last class meeting	September 2012
September 2012	Analyze data collected from pre- and post-tests	October 2012
October 2012	Prepare evaluation report	November 2012
November 2012	Distribute evaluation report to public; present to stakeholders	November 2012

## APPENDIX E

*Full Tummies, Full Lives Sample Survey Questions*

The following is a brief survey about your eating habits, nutrition, and preparing and cooking meals. Your answers will remain anonymous. When you are finished, please return this survey to the instructor.

*Circle the answer that best fits you. Please select only one answer for each question.*

**1. In the last month, how many of your meals included vegetables?**

- a. All of my meals
- b. Nearly all of my meals
- c. Half of my meals
- d. Less than half of my meals
- e. None of my meals

**2. If your meals in the last month did not include vegetables, what was the main reason?**

- a. Did not have any at home
- b. Could not afford them
- c. Do not like vegetables
- d. Unsure of how to cook them
- e. Other: \_\_\_\_\_

**3. In the last month, how many of your meals included fruits?**

- a. All of my meals
- b. Nearly all of my meals
- c. Half of my meals
- d. Less than half of my meals
- e. None of my meals

**4. If you meals did not include fruits, what was the reason?**

- a. Did not have any at home
- b. Could not afford them
- c. Do not like fruit
- d. Other: \_\_\_\_\_

**5. In the last month, how many of your meals did you make at home?**

- a. All of my meals
- b. Nearly all of my meals
- c. Half of my meals
- d. Less than half of my meals
- e. None of my meals

**6. In the last month, how many times did you skip a meal because you did not have enough food?**

- a. 0 times

- b. 1-5 times
- c. 6-10 times
- d. More than 10 times

**7. In the last month, how often did you rely on emergency food assistance such as food boxes or free meal sites?**

- a. 0 times
- b. 1-5 times
- c. 6-10 times
- d. More than 10 times

**8. In the last month, did you feel stressed or concerned that you would not have enough money to buy food?**

- a. Yes
- b. No
- c. Unsure



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Date  
Participant Name  
Participant Title  
Address Line #1  
Address Line #2

Dear Participant,

My name is Anna Wilsey and I am a senior at Oregon State University in Public Health. I am also a student in the University Honors College. As part of the requirements for my Honors Scholar degree, I am completing an undergraduate thesis project. For this project, titled "Full Tummies, Full Lives," I have created a health program plan, designed for young families in Benton County experiencing food insecurity. The focus of the program is nutrition education and cooking skills development.

As the second half of my project, I would like to investigate the feasibility of the program to see if I have addressed all of the appropriate needs and barriers experienced by young families. I am contacting you because I believe you to be an expert in this area, with the necessary experience and knowledge to evaluate my program. Dr. Leslie Richards from the School of Social and Behavioral Sciences in the College of Public Health and Human Sciences is my faculty advisor and the Principal Investigator for this study.

What would be required of you as a participant is to agree to a one-on-one interview with me. I have included a brief overview of the proposed program for you, and will begin the interview by providing more details and answering any questions. If you would like a copy of full program proposal I would be happy to send it to you prior to the interview. This interview would consist of six questions, and would require around thirty minutes of your time. I would like to audio-record the interview to accurately report your comments. An informed consent document, detailing the risks and benefits of participation, will be provided for you prior to the interview. Because we consider you an expert in this area and I will identify you in my thesis, your comments will not be confidential. Your participation in this interview will be invaluable to my thesis and will contribute not only to my learning but also to that of others interested in the feasibility of nutrition education programs and addressing the needs of food insecure families.

If you have any questions about participating in my thesis project or about the project itself, please feel free to email me at [wilseyan@onid.orst.edu](mailto:wilseyan@onid.orst.edu), or by phone at (971) 344-8711. Dr. Richards can be reached at [leslie.richards@oregonstate.edu](mailto:leslie.richards@oregonstate.edu), or by phone at 541-737-1071. If you have questions about your rights or welfare as a participant, please contact the OSU Institutional Review Board (IRB) Office at 541-737-8008 or by email at [IRB@oregonstate.edu](mailto:IRB@oregonstate.edu)

I will be following up with you via email about your participation in four to five days.

Thank you for your time and consideration.

Sincerely,

Anna Wilsey  
Student Researcher

Leslie N. Richards  
Principal Investigator



## APPENDIX G

### **Full Tummies, Full Lives (FTFL) Program Summary**

*This program was originally written as the term paper for H476: Health Programing and Evaluation, a class I took at Oregon State University fall term 2011.*

**Program Goal:** To increase the nutritional value of meals for families with young children experiencing food insecurity and hunger in Benton County, Oregon

**Program Mission:** The mission of Full Tummies, Full Lives (FTFL) is to improve nutrition among children in families who are experiencing food insecurity and hunger through education, skill building and community support.

#### Program Objectives:

- ✓ By the end of the program, participating families will have increased the amount of fruits and vegetables consumed in their household by 25%.
- ✓ By the end of the program, participating families will have increased the number of meals made at home by 25%.
- ✓ After three months in FTFL, participating families will be able to identify three benefits of good childhood nutrition.
- ✓ After three months in FTFL, participating families will be able to identify three ways to eat healthy on a budget.

#### Program Components:

##### **1. Health Communication Campaign:**

Including:

- a. One day program training course for community partners
- b. Flyers, handouts and posters distributed throughout the county
- c. June 2012 kick-off event
- d. Continued restocking of flyers and handouts by volunteers

##### **2. Nutrition Education and Cooking Skills Curriculum:**

The core of FTFL is a ten week curriculum with the first half focused on nutrition education and the second half on cooking and food preparation skills.

##### **3. Wellness Check-Ups:**

Three clinics will be held at the Boys and Girls Club during the course of the program. Local doctors and pediatricians will be available to perform check-ups for the children of participating families.

##### **4. Social Support and Networking:**

To build and support social networks among program participants, FTFL will host “Lunches in the Park” for families every week during the program.

##### **5. Enrollment in Free-or Reduced- School Lunch Programs:**

Volunteers and interns of FTFL will attempt to visit all families in Benton County with eligible children and enroll those children in their schools’ free -or reduced-school lunch program.



Present Program to Stakeholders								
Present Program to Community Partners								
Obtain funding and support for program								
Design flyers and handouts								
Training for community partners								
Pilot Program								
Refine Program								
Distribute flyers and handouts in community								

