FAIR FOOD:
JUSTICE AND SUSTAINABILITY IN COMMUNITY NUTRITION

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Abstract

Using examples from community nutrition, this project shows that health is best understood through an ecological systems model. Furthermore, this model contains both an ethical and epistemological imperative to generate health-related knowledge through participatory action research. First the ecological systems model of health is simultaneously described and illustrated with examples from nutrition. This model is one that understands individual well-being as the result of complex interactions within and among nested systems of environmental influence. Thinking about health this way acknowledges the impact of stress, social support, membership in community organizations, the built environment, agricultural subsidies, genetically modified organics and more on the health outcomes of individuals. Also, this model of health highlights a number of the positive, multi-level effects that could come about if local food systems were comprehensively integrated into nutrition assistance programs. The analysis next examines the implications of such a model that acknowledges the agency of individuals to impact both their physical health and larger systems of which they are a part. These elements of ecological systems theory demand research that is both participatory, so that the divisions between researchers and subjects are renegotiated, and action-oriented, so that research actively works for systemic change.

Finally, my work evaluating the Oxford Farmers Market Uptown's (OFMU) Electronic Benefit Transfer (EBT) federal food assistance program is presented as a case-study. Using Empowerment Evaluation (EE), a participatory research technique, to identify and address barriers toward using EBT at OFMU, it became clear that OFMU could provide nutritious, affordable, and culturally appropriate foods to low-income members of the Oxford community, given more targeted advertisement and outreach. EE provided flexible and effective tools for evaluation but fell short of comprehensively incorporating consumers into the evaluation. My own position as a learner who was eager to embrace the “researcher as subject” model enriched and informed the results. Taken seriously, the lessons of ecological systems theory and participatory action research offer a paradigm-shift in health promotion that truly works for the well-being of the whole individual and the transformation of the environments that they call home.
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INTRODUCTION Calling All Foodies, Farmers, Feminists, Faculty, and Common Folks

This project is an exploration of health that has important lessons for public health researchers, community development workers, public policy formulators, farmers, and anyone who eats. While my identity formally only falls under the first and last categories, this is also an exploration of the ways in which these rigid boundaries can and should be broken down by a more complex and inclusive framework for understanding individual health and growth. When we see individuals as complex systems in themselves who then are then a part of larger, interlocking systems, it becomes increasingly harder to maintain firm distinctions between policy and discrimination, environment and obesity, availability and outcomes, research and practice, and empowerment and sustainability.

This project is then about health, nutrition, communities and the people that make them up. It's about promoting nutrition in order to promote good health and about empowering communities and the individuals in them to better respond to health issues through nutrition programs. It is common knowledge that good nutrition is a form of primary prevention for people's physical bodies, stopping health issues like heart disease, type 2 diabetes, and some cancers in their tracks. This project will make clear that the way that nutrition is promoted is also a form of primary prevention, allowing everything from individuals to communities to international communities to be more responsive to future nutrition challenges.

My work is also, in part, about the new wave of environmentalism sweeping the globe. I hope to show that buying local is more than a yuppie quick-fix for the geographic and social isolation that comes with suburban living, arguing instead that it can result in a more nutritious, sustainable, and just food system. Throughout this project, I argue that farmers markets must be
more accessible to low-income consumers, and I describe the tools that should be used to do this most effectively.

On a broader scale, this project rests on the assumption that there is an inherent and necessary relationship between public health and social justice. In Chapter One, titled “Ecological Systems Theory, Nutrition, and Health,” I show a number of connections between socially unjust conditions and poor health outcomes. I argue that health is best understood through ecological systems theory, where people are part of nested systems of influence that they mutually impact, and in doing so I show the connections between everything from agricultural subsidies to racism in real estate to work-related stress and nutritional outcomes.

The following chapter titled “Research Implications: Ecological Ethics and Epistemology” then turns from these descriptive insights to a prescriptive imperative for research and practice. I argue that we need to recover the lost connections between research techniques and the theories of change, individual agency, and environmental impact that underlie ecological systems theory. Participatory action research – whereby “subjects” of research are an integral part of framing research questions, collecting data, and presenting findings and the research itself aims to correct the very social injustices it studies – is the tool that must be used to study and promote public health issues if they are understood through this ecological systems framework.

Chapter 3, “Applied Research: Evaluation of Food Assistance at OFMU,” details my own experience applying a participatory evaluation technique to the issue of low-income consumers' access to the local food system where I live and study. I describe my own work identifying and addressing barriers toward using Electronic Benefit Transfer (EBT) food assistance to pay for foods at the Oxford Farmers Market Uptown (OFMU) in Oxford, Ohio. This project
demonstrates that in the context of this rural town, farmers market foods can be both affordable and culturally acceptable for low-income consumers. It proposes a number of multi-level interventions to increase consumers' awareness of EBT as a payment option at OFMU. I then conclude with a look at the extent to which participatory action research in general and the specific evaluation technique, empowerment evaluation, produced valid, instrumental, and responsible knowledge by and about local food systems.

This project is intended to be a tool for people invested in promoting local food systems. It offers an alternative perspective for people focused on purely micro or macro issues in health promotion, a logical research imperative for anyone interested in ecological systems issues in health and development, and a platform for promoting social justice through public health research and practice.
CHAPTER 1 Ecological Systems Theory, Nutrition, and Health

Food is a topic that affects our lives in countless ways. Food is social, economic, cultural, ethical, biological, and historical. We can take a stand just by electing to eat some foods over others or we can understand someone better by sharing a meal. Whole industries are devoted to telling us how to prepare our food and how to lose weight when we eat too much.

My personal work with the Oxford Farmers Market Uptown (discussed in Chapter 3) deals with food availability, local food security, food assistance, and nutrition. That these topics are inherently connected should come as no shock. Rather, the challenge presented when discussing food assistance programs at farmers markets is finding a comprehensive model to organize these connections. Such a model would be both descriptive and prescriptive, shaking out barriers toward nutrition-promotion at farmers markets and prescriptive, showing sites for effective interventions. The model that I am putting forth in this paper is an ecological systems framework for understanding health (Bronfenbrenner, 1979; Richard, Potving, Kishuck et. al, 1996; Kok, Gottlieb, Commers, Smerecnik, 2008; McLeroy, Bibeau, Steckler, and Glanz, 1988). I will provide a comprehensive picture of the ecological health issues surrounding nutrition and health among low-income consumers by using pertinent examples, showing the ways and means through which farmers markets assistance programs stand to improve health outcomes.

Ecological systems theory is based on our understanding of the complex interrelations between biological organisms and their natural environments. Through the lens of ecological systems theory, individuals have agency to act within an environment
that is affected by multiple interacting levels of influence. Environmental influences include not only elements of the physical environment that have direct biological pathways to health or its reverse, but also elements of the social, political, economic, and cultural environments that have more complicated pathways and whose effects are nevertheless felt.

Versions of this framework of human action, interaction, development, and influence are used in disciplines such as community psychology, sociology, public health, and community development, although all owe their foundation to the work of Russian American psychologist Urie Bronfenbrenner. In his work *The Ecology of Human Development: Experiments by Nature and Design* (Bronfenbrenner, 1979), Bronfenbrenner posits that human development is affected by the ecological environment, “conceived as a set of nested structures, each inside the next, like a set of Russian dolls” (Bronfenbrenner, 1979 p. 3). For Bronfenbrenner, there are four systems: microsystems like family or neighborhood units, mesosystems connecting these immediate environments, exosystems like a caregiver's workplace, and macrosystems like political cultures and subcultures. While the mesosystem may seem at first like a false level, Bronfenbrenner (1979, p. 3) defends it, arguing that the connections between systems may in fact be as important as the nature of microsystems themselves. Thus, this theory is as much about environments as interactions. Bronfenbrenner emphasizes that this theory is meant to go beyond mere description, which often serves to emphasize difference or disparity, to prediction, which can speak to the influence of environment on behavior and vice-versa (Bronfenbrenner, 1979 p. 18).
In the field of public health, this ecological framework has been adopted and expanded to include several more levels of influence. The model that I will be exploring in this project will be one proposed by Richard, Potving, Kishuck et. al (1996) and revised by Kok, Gottleib, Commers, and Smerecnik (2008) that includes six levels of influence. This is by no means the only adaptation of ecological systems thinking to health promotion. One prominent alternative to this is the model forwarded by McLeRoy, Bibeau, Steckler, and Glanz (1988) where only five systems – intrapersonal, interpersonal, institutional, community, and public policy – are presented. The Richard, Potving, Kishuck et. al (1996) model is preferable because it allows for a wider interpretation of individual factors and breaks macrosystems into two levels. Furthermore, I choose the six system model for its faithfulness to Bronfenbrenner's model, its utility, its rigor, its clear division of environmental systems, and its focus on people in place rather than just people or place.

The Richard, Potving, Kishuk et. al model (1996), shown right, is first striking for its acknowledgment of the complexity of sizes and structures of environments that affect individuals. Perhaps more importantly, the individual is included as a system. This speaks first to the complexity of individual health, behavior, and influence, encouraging health
promotion programs to think of biological health holistically. Knowledge produced by health psychologists, medical sociologists, psychiatrists and others needs to be accounted for in this model of health. Secondly, including the individual as a system acknowledges that individuals are not passive, powerless results of environmental determinism but, like every system, are able to interact with and affect each level of their environments.

While this model certainly gains much from its visual simplicity, it is quite complex, challenging stakeholders in health and well-being to think about interventions and impacts multi-dimensionally and on multiple levels. In order to further explore these subtleties, I will move through each level of this model, both defining and illustrating the system. The illustrations will be related to issues in nutrition for low-income consumers so that both the nuances of ecological systems theory and the need to make local food accessible through nutrition assistance programs will become clear.

*Individual System*

The history of understanding physical health outcomes as the result of complex interactions among internal systems is surprisingly brief. Certainly the biomedical model of health, which holds that disease is caused by bodily invasion by pathogens, has discovered the sophisticated pathways between health and disease, but this model reinforces firm distinctions between physical health processes and mental or social processes. Thus, while the biomedical model acknowledges the systemic nature of the human body in pathogen presentation and response, it conceives of human beings simply as receptacles for health or disease.
For example, a biomedical examination of poor nutrition would talk about the association between diet and heart disease, cancer, stroke, diabetes, hypertension, overweight, and osteoporosis. According to a United States Department of Agriculture's (USDA) report “High Costs of Poor Eating patterns in the United States,” over half of the annual deaths in the United States can be attributed to the first four of these conditions (Frazao, 1999). In the decade after the release of this groundbreaking report, these numbers continue to climb. Biomedical practitioners would go further, talking about how rates of chronic diseases, stroke, cardiovascular diseases, type 2 diabetes, and certain cancers go down with increased fruit and vegetable intake; risk of coronary heart disease decreases with an increased intake of fiber-rich foods like fruits, vegetables, and whole grains; and risk of osteoporosis decreases with increased milk intake (HHS, 2005). Pure biomedical proponents would elaborate, talking about the risk of increasing blood lipid levels, thereby disposing individuals to coronary heart disease with a high intake of saturated fats, trans fats, and cholesterol; and how this risk must be balanced with the risk of increasing blood cholesterol and having inadequate levels of vitamin E and fatty acids with an inadequate level of fat intake (HHS, 2005). Finally, the biomedical model illuminates the link between sugar consumption and weight gain, the link between sodium intake and blood pressure, and the moderating effects of potassium intake on blood pressure (HHS, 2005). In short, this model alone calls for increased fruit and vegetable intake and decreased consumption of processed foods for those who are obese or otherwise nutritionally compromised.
This biomedical explanation for poor nutrition and its subsequent associated effects, however, focuses solely on caloric and nutritive intake and neglects questions of mood, stress, and self-efficacy. A narrow biomedical model of health also runs the risk of advancing moralistic medicine, where health decisions are “right” or “wrong” rather than a result of a complex system. This is complicated by the issue of agency, as even the most biomedically healthy individuals are praised not for their personal initiative, but instead for complying with medical professionals. In the case of nutrition, moralistic medicine is apparent in health recommendations. Foods are labeled as good or bad and individuals are expected to consume the right amounts of good foods. Simply using a biomedical model to understand individual health falls short, failing to acknowledge that individuals are agents of their own health and instead acknowledging only the power of pathogens and health professionals. Moreover, the predictive power of this model falls short because it ignores social and psychological correlates to health.

The biopsychosocial model of health is an alternative foundation from which we can begin to understand the individual system level. This model of health submits that health is created by the synergistic connections among biology, sociology, and psychology, specifically focusing on personal and interpersonal feedback loops that affect health outcomes. Because this model straddles the individual and interpersonal systems, I will focus here mainly on what it tells us about individual health, although the connections between these levels are necessary elements of ecological systems theory.

When the mind-body barrier is broken down, we can learn much about individual system functioning and nutrition. Health psychologists show that the body’s reaction to
high or chronic levels of stress causes undue wear on internal organs, a type of wear that is compounded by a high-fat diet (McEwen, 1998). Included in this excessive bodily wear is an increased susceptibility to disease due to a lowered immune system, increased risk of obesity due to a suppressed digestive system, increased risk of heart disease due to elevated blood pressure, and decreased memory (McEwen, 1998). Stress is inseparably intertwined in nutrition and health.

It is here where the concept of food security, or “assured access, at all times, to enough food for an active, healthy life” (Andrews, Nord, Bickel, & Carlson, 2000), also comes into play. Food security is associated with health in diverse ways across the lifespan. Food insecure children are at risk for poor health, thoughts of suicide, and conduct disorders while food insecure adults are likely to eat less produce, experience maternal depression, consume less nutrient-dense food and protein, feel more powerless, are at higher risk for diabetes, and have more risk factors for heart disease (Haering & Syed, 2009). While many of these links are correlational, it is clear that nutrition and the ability to feed oneself affects the individual in a number of neurochemical, biological, psychological, developmental, and psychosocial ways. Food assistance programs like SNAP, formerly known as Food Stamps, attempt to increase food security. If this food assistance includes more fresh produce like that at a farmers market, the health benefits would be predicted to be even greater.

Also included in the individual system is a sense of self-efficacy, or a belief in one’s ability to engage in a given behavior, such as increase consumption of fruits and vegetables. Major theories of health behavior including the Health Belief Model (Janz &
Becker, 1984), the Theory of Reasoned Action or Planned Behavior (Fishbein & Ajzen, 1975), Social Cognitive Theory (Bandura, 1986), and the Transtheoretical Model (Prochaska & Velicer, 1997) all emphasize the central role of self-efficacy in behavior change. If talking to farmers about their products increased self-efficacy in ability to increase fruit and vegetable intake in the same way that children’s gardening programs do (Heim, 2009), this type of intervention would have a nutritional impact on the individual level. Finally, things like values, beliefs, and history that are reflected in the local food movement are important to the individual system. In the end, this system becomes a complex intrapersonal web of interactions between the biological self, the psychological self, the social self, and the acculturated self.

While a biopsychosocial model is clearly useful for its broad scope in understanding the function of several microsystems of health, its definition of determinants of health is still overly narrow and individualistic. Thus, while much of the strength of this model that explains the individual system lies in integration, it fails to make the most of these strengths to create a broader view of health, wellness, and health-determinants. The built environment and policy are neglected and behavioral or cultural determinism are advanced. The biopsychosocial model begins to break down sterile, mechanized narratives of health, but it fails to examine critically what larger systems may be affecting its sub-systems of interest. The nesting of these individual system factors is what makes the ecological systems framework so useful and compelling.
The interpersonal level is quite flexible in interpretation and “consists of the persons and small groups with whom the at-risk people associate (family friends)” (Kok, Gottlieb, Commers, & Smerecnik, 2008 p. 437). For this system, social capital, social support, culture, and socioeconomic position are key factors. The biopsychosocial model of health is a model that focuses on these factors, looking at the connection between health and interpersonal interactions.

Social support is one place where the interpersonal system has a direct effect on bodily health. Social support is quantified as a combination of the quality, density, and type of connections and is correlated with higher immune functioning, less depression, longer lives, faster recovery from illness, and more (Sanderson, 2004). Mechanisms through which interpersonal relations can reinforce health behaviors and interact with the individual system are not difficult to deduce. Close relations can offer advice, emotional and material support, information, and positive forms of coping while encouraging us to pursue health-seeking behaviors.

In the specific case of nutrition, the social and cultural nature of food makes the interpersonal system more interesting. In family units, the level of nutritional knowledge of mothers predicts the nutritive intake of young children and the mother’s formal educational status is predictive of her level of nutritional knowledge (Blaylock, Variyam, & Lin 1999). Further compounding nutrition issues on an interpersonal family level, time spent cooking food is significantly correlated with marital status, employment status, income, and gender. Mancino and Newman (2007) report that “working full-time
and being a single parent appear to affect the time allocated to preparing food more than an individual’s earnings or household income do” (p. iv). This is important, as government nutritional assistance is on a nutritional and affordable “Thrifty Food Plan,” whose demands on the time of single, fully employed mothers appear to be excessive. Women unaccustomed or unable to devote more time to cooking may instead end up preparing quick meals with low nutrient-density. Perhaps cooking demonstrations and farmers’ tips at a farmers market could help time-pressed women discover practical, easy ways to make their foods more nutritious.

Beyond the question of what families eat and how, the interpersonal system can address questions of how much nutritious food is available. The work of Martin, Rogers, Cook, and Joseph (2004) explores the relationship between food security and social capital, which they define as “a measure of trust, reciprocity and social networks” (p. 2645) among family and neighborhood units. Here, they found that regardless of socioeconomic position, higher social capital was associated with food security, stating that “Households may have similarly limited financial or food resources, but households with higher levels of social capital are less likely to experience hunger” (Martin, Rogers, Cook, & Joseph, 2004 p. 2653). Looking back to the food security literature, this provides a compelling and valid example of the link between nutrition in the interpersonal system and individual health. Because farmers markets encourage greater social interaction, shoppers may get opportunities to grow their social support in this atmosphere than at a supermarket.
Organization System

The organizational level represents “systems with a formal multiechelon decision process operating in pursuit of specific objectives (schools, companies, professional associations)” (Kok, Gottlieb, Commers, & Smerecnik, 2008 p. 437). Contrasting this level with the earlier interpersonal level and the following community level, it is clear that this model is arranged according to how types of structures may fit into each other. Clearly, a family could be larger than an organization or an organization larger than a community, but the rules, structures, expectations, and prescribed roles within each of these systems are clearly different and interlocking.

It takes no stretch of imagination to see the connection between these types of organizations and health-related factors like stress. Both work and school environments can cause stress in individuals that can then be expressed in interpersonal relationships. Ibrahim, Smith, and Muntaner (2009) identified a relationship, especially among low-income workers, between the work-related stressors of low social support and job security and the negative health outcomes of depression, distress, and low self-reported health. Thus, while the impact of workplace wellness programs on individual health is important to consider, it is also true that the stress of work itself can take a toll on individual health. Stress, as I discussed earlier, can lead to a slowing of the digestive system and metabolism, affecting nutrition outcomes.

While discussing the organizational level, I would be remiss if I did not briefly address unemployment and discrimination in employment. If the workplace system impacts individuals, they are certainly impacted more severely by being removed from
this system or being improperly treated within this system. While critically examining
nutrition statuses and obesity among individuals who receive government food
assistance, VerPloet and Ralston (2008) argue that economic discrimination against
individuals who are obese may perpetuate employment, and ultimately economic
inequalities. Thus, the workplace system works reciprocally with the individual and
interpersonal systems to affect individual’s nutritional statuses. Thinking in the reverse, a
nutritional intervention lowering obesity could potentially be correlated with lower job
discrimination and work-related stress.

Voluntary participation in other organizations can be related to nutrition as well.
In the earlier discussed study on food security and social capital, Martin, Rogers, Cook,
and Joseph (2004) emphasize the importance of having a community member participate
in a civic or community organization in building social capital. Again, higher social
capital is then correlated with higher food security, which in turn is correlated with a
more nutritious diet and better mental and physical health outcomes.

Community System

Perhaps some of the most creative intersectional work on nutrition this decade has
targeted the community system in one way or another. This system is defined as
“collectives of people identified by common values and mutual concern for the
development and well being of their group or geographic area (villages, neighborhoods)”
(Kok, Gottleib, Commers, & Smerecnik, 2008 p. 437). It is important to note that in this
definition, there can be multiple communities in one area, individuals can belong to
several communities, and sub-communities can exist where values or visions for the
future of the geographic area differ. Focusing again on the subject of my research, there is not one “Oxford Community,” as students of Miami University and individuals that are completely unaffiliated with the University can have vastly different visions, geographic understandings, and time-scales of the future of Oxford.

Because of the synergy that this definition affords between geography, economy, culture, and sociology, a number of researchers have begun to examine the effects of the so-called built environment on health in general and nutrition in specific. Mark Winne (2008) is an outspoken champion of the reduction “food deserts.” These are found most in inner cities and very rural areas including Appalachia, where the combination of distance from whole food retailers and poor freshness, price, and selection of produce at neighborhood stores makes fresh, healthy eating nearly impossible. Unsurprisingly, but regretfully, low-income neighborhoods, especially those that are highly segregated, have fewer places to buy any food, especially fresh produce (Morland, Wing, Diez Roux, & Poole, 2002).

The community system nutritive environment is then further complicated by what food is readily available. Integrating the community system with the individual system, Li, Harmer, Cardinal, Bosworth, Johnson-Shelton (2009) studied the correlation between individual senses of self-efficacy in eating fruits and vegetables, rates of obesity, socio-demographic factors, and levels of activity with density of neighborhood fast-food outlets. Their study ultimately highlighted the link between the geographical nature of the community system and the social nature of the community, especially regarding nutrition. These types of factors and connections in the community system are what
Egger and Swinburn (1997) say create an “obesogenic environment” wherein social ecology is essential to an understanding of an individual’s nutritional status.

In reaction to these inequalities in community built environments and nutrition, a number of groups have begun to push for the expansion of farmers markets – whose products are often pesticide-free, may have a higher nutrient content, and have less of an environmental impact – so that low-income consumers can benefit as well (Winne, 2008). One creative example from a densely populated area is that of The Lower East Side Girls Club of New York, who integrated healthy eating and entrepreneurship by starting a farmers market stand called Juice Joints that made healthy snacks, baby food, and more. Meanwhile, the Jubilee Project in Appalachian Tennessee integrated local knowledge of canning with local agriculture, creating a shared-use community kitchen that was able to engender healthy eating locally and, through internet sales, promote the local economy (CFSC, 2007).

When looking at the community system in relation to nutrition, it is finally important to consider who is a part of the community. In a revealing study of the ways in which racism and classism cause increased environmental injustice, Gee and Payne-Sturges (2004) point to the mutually reinforcing injustices of exposure to physical risks and environmental stressors in low-income neighborhoods. In the end, they create a link between the negative health effects associated with stress, especially lowered immune response, and the increased risk of being exposed to health hazards in low-income communities. A separate economic facet of the community system is the strength of the local economy, an issue implicated in nutrition when local, independent farmers are able
to sell their goods close to home. Promoting community food security is then a multilevel intervention because it impacts the well-being of consumers, producers, and the community itself (Winne, 2008).

**Society System**

The society system, which Kok, Gottleib, Commers, and Smerecnik (2008) also call the political level, “consists of (political players in) larger systems processing the means to control several aspects of the lives and development of their constituent subsystems (provinces, states, countries)” (p. 438). It is on this level that structural frameworks solely focus, arguing that historical political, economic, and social causes have created the current system of racial and ethnic discrimination; poor housing, education, child care, health care, and transportation; sex discrimination; retirement insecurity; and legal deprivation that acts on individuals, causing them to be poor in resources and health.

A purely social structural framework is certainly useful for looking at some system connections but I argue that just like a pure biomedical or psychosocial framework, it misses important elements of health and well-being. Royce (2009) paints a thorough picture of the structural determinants of poverty in the United States. Beyond the connections between poverty and nutrition that I have already discussed, Royce connects poverty to the individual and community systems through the concept of collective socialization, where “working class values” are instilled in and perpetuated among low-income individuals (Royce, 2009 p. 195). The interpersonal system is, to some extent, implicated in a structural framework, as Royce argues that low availability
of quality role models and low expectations by teachers lead to poor educational outcomes and poor acquisition of job skills (Royce, 2009 p. 190). The bulk of this argument, however, focuses on larger levels where “Neighborhood inequalities magnify individual inequalities, with particularly adverse consequences for the poor” (Royce, 2009 p. 193), and de facto segregation and de jure discrimination lead to poor opportunity and dispose individuals to poverty. Focusing his efforts outside of the United States, medical anthropologist Paul Farmer is especially effective at arguing for a purely systemic framework of health. In a book about his work in Haiti, Tracey Kidder (2003) writes about Farmer’s argument that building a dam in a particular valley symbolizes and perpetuates the connection between political corruption and discrimination of the poor in Haiti.

Structural approaches to health and opportunity are useful for understanding how macro-level, intersectional influences can affect the situations of individuals, but these approaches ultimately fail to recognize individual agency. Thus, disadvantaged individuals are stripped of the ability to respond to situations of injustice. This type of framework is useful for advocating for policy change, but it only allows for true change in health and other arenas through the work of the privileged. The flawed or incomplete logic of this approach is transparent upon reflection on its logical end: *because* individuals are affected by structural injustices out of their control, power can only be restored to them *through others*. With a purely structural understanding of health, it is impossible to conceive of true, sustainable change from within. (See Chapter Two for further discussion of epistemic issues with this type of logic.)
Instead, using the more comprehensive ecological system model that allows for reciprocal vertical and horizontal interactions, a number of issues clearly implicate nutrition in the social system level. Again looking at nutrition, the creation and presentation of nutrition advice is an inherently political activity. Government recommendations on nutrition can be influenced by industry lobbies. For example, the sugar lobby pushed to maintain the Food Pyramid wording, “choose a diet moderate in sugars,” rather than include the word “limit” in the 1995 version, a change that they feared could lead to harmful effects for their bottom line (Nestle, 2002 p. 83). These guidelines are then presented in a way that promotes specific products, like dairy products, while neglecting to specify healthy milk fat levels or considering the high prevalence of lactose intolerance in non-white Americans over the age of five (Nestle, 2002 p. 73).

Once foods have then been labeled as “good” or “bad” through such a political process, the way foods themselves are presented is affected by social system level interactions. In a huge win for consumer-rights groups, the 1980s saw the requirement by the Food and Drug Administration (FDA) that foods be labeled with nutrition information (Sims, 1998). Labeling is still a source of contention, however, as the FDA tightly controls health claims that can be made on labels (Nestle, 2002). Furthermore, corporations have been criticized in recent years for targeting children in their food advertising, influencing them to choose unhealthy foods in and outside of the school setting through packaging, prize incentives, and sponsorships (Nestle, 2002).
The food system itself is hugely impacted by decisions made in the social system level. Sims (1998) provides a comprehensive history of the United States government’s modern involvement in agricultural production, which began with a push for increased agricultural mechanization in the pre-WWI era. During the Great Depression, the government began its commodity compensation program in which it simultaneously subsidized farmers’ crops and created food aid programs for other citizens. This Depression-era policy is widely cited as the origin of the cycle of dependency that we currently see in the US agricultural system (Sims, 1998; Winne, 2008; Woolf, Ellis, & Cheney, 2008). The documentary King Corn (Woolf, Ellis, & Cheney, 2008) goes further, linking these actions to the lack of agricultural diversity in the American market. Meanwhile Winne (2008) convincingly argues that even these early interventions used food assistance programs to prop up agricultural market interventions (p. xix).

Regardless of the early connection between agricultural subsidies and food systems, the contemporary connections are indisputable. The overproduction of corn in the United States, supported by agricultural subsidies, has made it an affordable way to quickly produce cows whose meat has an extraordinarily high fat content (Sims, 1998 p. 116; Woolf, Ellis, & Cheney, 2008; Pollan, 2002). Meanwhile, the federally subsidized school lunch program, originally designed to ensure the fitness of future soldiers, is only slowly changing from its roots as a dumping ground for milk fat and other products found in excess because of government subsidies (Sims, 1998 p. 109; Pollan, 2007). Furthermore, the United States government oversees the actions of “check-off” programs, best understood as conglomerate advertising campaigns for major agricultural
commodities. The results of these programs include the “Got milk”, “Beef, it’s what’s for dinner”, and “Pork: the other white meat” campaigns (Sims, 1998). These campaigns do not equip consumers with all of the relevant nutritional information and, in the case of the “Got milk” campaign, 40% of whose increased sales resulted in sweetened, flavored milk, often result in more spending on unhealthy foods (Nestle, 2002 p. 81).

One final and very important issue in the society system of nutrition is the impact of poverty policy and food aid on the nutritive outcomes of low-income consumers. Mark Winne (2008) speaks of a, “Tale of two food systems” (p. 175), where rich Americans have convenient and affordable access to foods that are healthy and environmentally sustainable while poor Americans are precluded from enjoying the benefits of these foods. It is important to note that poverty policy and food assistance are not always understood as standing in direct relation to each other. In fact, environmental scientist and policy advocate Laura Sims (1998) argues that the United States needs to overcome its struggles with the intersectional nature of nutrition issues that often cause questions of agriculture, labeling, education, and health to be answered separately. Sims gets at the heart of the issue by saying that the United States needs a comprehensive nutrition policy that addresses all of these issues coherently.

While there a number of government-funded food assistance programs, I will focus here on the Supplemental Nutrition Assistance Program (SNAP), which was known as Food Stamps before benefits were dispersed with the current debit-like Electronic Benefit Transfer (EBT) system. While some argue that federal food assistance increases customers’ buying power for accessible food (Boyle & Morris, 1999) and reduces
poverty (Schiller, 2004). Ver Ploeg and Ralston (2008) argue that food stamps and SNAP can actually have poor health effects because it is an anti-hunger intervention, focusing consumers on food, rather than overcoming poverty. Winne (2008) expands this criticism, arguing that the connection between food assistance and nutrition can be strengthened by incorporating local food into government food assistance programs, thereby increasing access to healthy, fresh foods. The society system then affects nutritional outcomes of individuals by affecting what physical situations individuals can access, what foods they can feasibly access, and what they know about food.

*Supranational System*

The final system in this model is the supranational system that “consists of associations composed of two or more societies (United Nations, European Union)” (Kok, Gottleib, Commers, & Smerecnik, 2008). Although this definition focuses mainly on the actors at the supranational level, I will also be working under the understanding that this level represents a macro sense of place; the supranational is the context within which the lower level systems operate. Thus, important aspects of supranational systems decisions include the effects on people in all system levels in the respective countries as well as the closely related effects on the space itself.

Because the global economy is a modified form of free-market capitalism, that has a major impact on agricultural practice. The two main categories relating nutrition to the supranational level are international agriculture policy/practice and the environmental impact of these paradigms. The first supranational issue related to international agriculture is the highly contentious area of intellectual property rights in agricultural
products like seeds and fertilizers. With the increase of technology in the last few decades has come the birth of the genetically modified organism (GMO). The most applicable example of GMOs for this discussion is seeds, often marketed with a companion fertilizer, that are patented by companies and produced in mass quantities. The problem, of course, is that patented material cannot be reproduced without the owner's consent; farmers growing GMOs can no longer save seed for planting the next season (Miller, 2008 p. 32).

The globalized patent system began with the Uruguay Round agreement on Trade-Related Intellectual Property Rights. This agreement expanded patent law to all WTO member nations and, many argue, aggravated existing struggles in developing nations with hunger and illness (Madeley, 2000 p. 96). One highly contentious example of this law's application came in 1997 when Texas-based company RiceTec Inc. patented basmati rice, a grain that had been cultivated for generations in India and Pakistan (Shiva, 2001 p. 57). After a long and loud struggle, this patent was retracted, but not all disputes end so fairly.

The basmati debate is just one example of what Shiva (2001) sarcastically calls “intellectual piracy rights” (p. 7), drawing attention to cases where agricultural products that have been developed and used by indigenous populations are suddenly out of their reach. This, she argues, is an extension of colonial policy where indigenous populations were denied their own property and their right to benefit from local biodiversity (Shiva, 2001 p. 43). Furthermore, seed patenting compromises diversity, local knowledge, culture, and sustainability (Shiva, 2001 p. 71). Two major threats of GMOs and
international patent laws that then affect American consumers are the possibility that “Frankencrops” – made to be sterile to fortify company bottom lines – could mutate and cause other local plants to be sterile (Shiva, 2001 p. 82) and the extreme disease vulnerability of areas dominated with one variety of one crop (Shiva, 2008 p. 109).

The question of seed sovereignty then ties directly into trade policy, the next issue in international agricultural policy. At the close of her book Protect or Plunder? Understanding Intellectual Property Rights, Shiva (2001) states that intellectual property rights, or “IPRs in the area of seeds and plants will increase the national debt [of India] tenfold. The undermining of food security will increase food imports and hence the foreign exchange burden, thus inviting deeper conditionalities from institutions like the IMF and the World Bank” (p. 79). Madley (2000) agrees, saying that “Free trade has enslaved the hungry rather than feed them” (p. 3), pointing to the work of the International Monetary Fund (IMF) and World Bank in the 1980s and the current work of the World Trade Organization (WTO) and United Nations (UN) to affect developing countries' economies through trade agreements. Economist Patniak (2007) writes a series of essays explaining how international trade policies are a new form of imperialism while Klein (2007) accuses these supranational decision-makers of engaging in “disaster capitalism,” or the “radical privatization of war and disaster” (p. 17). The breadth and depth of literature on these subjects speaks to just how urgent international trade issues are, both economically and in terms of justice.

Miller (2009) brings this critique of neoliberal policy back to the issue of food, arguing that individual farmers in developing countries are stripped of food security
because of these policies. Miller explains that once countries have been forced into constrictive trade agreements for cash crops, farmers have little option but to grow these exclusively, making them unable to feed themselves or afford their country's food (p. 118). This then brings in global food aid, the final issue within the policy portion of the supranational nutrition system. Miller explains that United States agriculture ultimately finds an unjust niche market in other countries through international food charity.

Global food charity – food aid – is a lynchpin in the structure of the global food system. Surpluses generated by U.S. agriculture are typically dumped in other countries (including Canada), with the result of wiping out indigenous agricultures (which can't compete with the cheap, subsidized U.S. food). Surpluses are essential to price control. (Miller, 2008 p. 117)

The size of this problem becomes bigger when we understand that the donation of more food to countries causes less agricultural output (Madley, 2000). The supranational food system is then related to American individuals ethically through patent and trade policies that benefit Western corporations and directly insofar as many of the subsidized foods implicated in international food aid are the same foods that are associated with an “obesogenic” food environment in the United States. Issues like this expose the crumbling foundations of neoliberal trade policy.

The other major category through which the supranational system affects nutrition is through environmental impact. This impact is first seen through the expansion of non-organic farming. Synthetic fertilizers used in large-scale farm operations block soil capillaries, thus blocking plants' access to nutrients. The soil is then less able to absorb water, compromising its stability and the nutrient absorption of plants. Consumers, in turn, are provided with less nutrient-rich foods (Shiva, 2009 p. 103). Furthermore,
consumers and water supplies can be negatively affected by the chemicals used in non-organic farming (Miller, 2008 p. 74).

The rapid expansion of chemical-heavy, monoculture cash crops in developing countries represents the convergence of climate change, peak oil, and a world food crisis. Shiva explains the wasteful nature of the current supranational food system, saying, 

Industrialized, globalized agriculture is a recipe for eating oil. Oil is used for the chemical fertilizers that go to pollute the soil and water. Oil is used to displace small farmers with giant tractors and combine harvesters. Oil is used to industrially process food. Oil is used for the plastic in packaging. And finally, more and more oil is used to transport food farther and farther away from where it is produced. (Shiva, 2008 p. 96)

This incredible waste of energy in our current food system fuels global warming and threatens to further marginalize the world's poor when peak oil is reached. In the current US food system, 10 calories of energy are used to produce and package 1 calorie of food (Shiva, 2008 p. 100). The health of US communities, and thus individuals, are then implicated in the supranational food system insofar as they are offered the opportunity to lower their carbon footprint and strengthen their communities by buying locally grown organic foods.

In this chapter, I have argued that using an ecological system model for understanding individual health, whereby people are part of nested systems of influence that they mutually impact, creates a rich, multi-dimensional picture for both understanding and affecting health. Under this model, good health is the result of personal agency positively interacting with multiple environments. With the case of nutrition, issues of stress, discrimination, access, self-efficacy, food systems, food assistance, and more converge to affect health outcomes. Expanding food assistance to
include locally grown food is an intervention that touches on each level, offering creative ways to impact overall health, well-being, and justice. This model is preferable to more narrowly-focused models like the biomedical, biopsychosocial, and structural models, all of which neglect both to see the full picture and to acknowledge individuals agency to affect their own bodies. In ecological systems theory, people are then important not just because they are a part of so many systems, but because they have the ability to affect entire systems.
CHAPTER TWO Research Implications: Ecological Ethics and Epistemology

The last chapter showed that using an ecological systems framework to understand health provides a comprehensive, multifaceted picture of health-determinants, research areas, and arenas for intervention. This model is inclusive, stressing the importance of a number of stakeholders in health-promotion; and it is dialogical, emphasizing the reciprocal relationships between these systems and stakeholders. This model is not, however, just a descriptive tool, but a prescriptive one for practice as well. This decade has seen an explosion of ecological systems research and interventions that focus on topics such as smoking, diabetes, HIV/AIDS, obesity, and pregnancy.

One prominent example of ecological systems theory in action is the Healthy Hawaii Initiative that focused individual, social, and policy interventions on the issues of smoking, nutrition, and physical activity, all of which are all strongly associated with a number of chronic diseases (Nigg, Maddock, Yamauchi, Presler, Wood, & Jackson, 2005). This type of intervention then targets interrelated health-related factors by working with individuals, communities, environments, and policies. Large-scale ecological work like this would nicely complement a small-scale intervention, proposed by the Robert Wood Johnson Foundation, for “going beyond the self in self-management” of diabetes by providing support on a number of levels (Fisher, Brownson, O'Toole, Shetty, Anwuri, & Glasgow, 2005).

However compelling these examples of "pure research" or "pure practices" may be, I will demonstrate in this chapter that there is an ethical and epistemological imperative to research public health issues in a way that actively works with stakeholders to effect necessary change. In other words, I will show that the logic and ethics of ecological systems theory demands not just research and action, but participatory action research (PAR), a paradigm that researches with people traditionally framed as research subjects to create sustainable change. When applied to
public health issues, PAR looks to vulnerable populations to define questions or issues of interest, take part in data collection, and compile results; while the project as a whole looks to not just provide a “quick fix” but correct social injustices where they may exist.

There is a historical and philosophical connection between ecological systems theory and participatory action research. Bronfenbrenner, the originator of ecological systems theory, explains that his concept of environments, foundational to the theory itself, is influenced by Kurt Lewin's idea of “life space” (Bronfenbrenner, 1979 p. 23). Lewin, in turn, is widely acknowledged as one of the founders of the PAR paradigm. Lewin's (1946) article “Action Research and Minority Problems” began what is sometimes called the Northern tradition in PAR, where “subject” participation in research is considered important for efficiency, as social problems require fact-finding that is best performed through participation.

The other founder of PAR, whose school of thought is known as the Southern tradition, is Paulo Freire who argued in Pedagogy of the Oppressed (1970/1993) that participation is necessary in research because it facilitates empowerment of disadvantaged people by allowing them to learn more about and affect the unequal systems of power that created their disadvantaged situations in the first place. In current community health practice, advantages of PAR are explained at all positions in this spectrum from Northern to Southern tradition. Some argue that participation fills in information gaps (Goodman, 2001), that the ecological nature of health issues requires participatory solutions (Wandersman, 2001), that participation is just, as it allows traditionally silenced voices to speak (Salina, Hill, Solarz, Losondak, Razzano, & Dixon, 2004), or that participation strengthens communities’ democratic processes (Taylor, Jason, Keys, Surazez-Blacazar, Davis, Durlak et al., 2004).

Participatory action research is closely wedded to feminist and other critical epistemologies, or theories of knowledge. PAR draws much of its strength as well as its
criticism from its rejection of positivist research. The PAR research paradigm rests on the idea that the traditional power structure between researchers and subjects is fundamentally flawed. In order to know something, the objectivist positivist argument states, it must be outside of you: it must be an object. It then follows that in order to know others, you must objectify them. Early feminists like Simone de Beauvoir addresses this, saying that while mutual objectification is natural and even necessary for understanding ourselves, one-sided objectification is problematic because it bars both parties from knowing themselves (Beauvoir, 1953/1993). Contemporary feminist scholars like Patti Lather (1986) explicitly tie issues of position, knowledge, and power to research, arguing both that researchers should attempt to democratize power relations between researchers and subjects and that social inequality should be a topic of research itself.

Curiously, this objectification has been rationalized as an effort to restore subjectivity or to allow people to rediscover their ends. This is not, however, sufficient justification for treating people only as objects in most situations. Objectification and stripping of agency in the process of knowledge production should be taken particularly seriously because this knowledge has the power to construct, or in this case deconstruct, the subjectivity of others. PAR then approaches the question of knowing others through research with a heightened moral sensitivity, as the subjectivity of others is inherently tied to the way in which the research deals with others and for what means.

PAR holds that not only can the researcher-subject relationship never be neutral or objective, but that it also loses many potential insights by keeping up this charade. Situated knowledge – formed out of individual’s specific epistemic positions that are differentiated along the lines of race, gender, socioeconomic position, sexual identity, able-bodiedness, and more (Hill Collins, 1991) – is entirely lost in objective, positivist inquiry. Lorraine Code discusses the possibilities of and difficulties in knowing others, arguing that, “knowing other people is an
exemplary kind of knowing, and that subjectivity has always to be taken into account in making
and assessing knowledge claims of any complexity” (Code, 1995 p.52). She goes on to say that
the, “view from nowhere” approach to knowledge-formulation is not only inaccurate because it
falsely presupposes a universal observer but it neglects, “the possibility of analyzing the
interplay between emotion and reason, and obscure connections between knowledge and power”
(Code, 1995 p. 24). PAR seeks to renegotiate this asymmetrical power relationship between
researcher and subject by embracing multiple ways of knowing, acknowledging the different
epistemological positions of each player, and by attempting to work with “subjects” to answer
questions that are salient to them. PAR grows knowledge of a specific health topic and
knowledge of participants’ own subjectivities, things that are both useful under the ecological
systems framework of health.

Despite the historical and academic connection between ecological systems theory and
participatory action research, a disconnect is apparent in current public health practice. For
instance, in an article touting the advantages of ecological thought in public health, Stokols
(1996) highlights a number of valid considerations for research, including the multifaceted and
interactive effects of systems on health and the value of implementing multidimensional
interventions. However, this article only addresses the place of these research subjects by
stresssing the importance of a good person-environment fit, and by focusing on the need to target
organizational “leverage points.” The question of agency is shifted to a purely macro-level.
Meanwhile, an article discussing funding implications for community-based participatory
research enthusiastically endorses the research paradigm for its ability to recruit subjects with
fewer issues of consent, its potential to uncover uniquely situated knowledge, and its connection
to community building, but completely fails to provide a theoretical imperative for employing
such a research technique (Minkler, Glover Blackwell, Thompson, & Tamir, 2003).
I hold that there is a necessary connection between ecological systems theory and participatory action research. This is a two-pronged argument, breaking down the participatory (inclusive empowerment) and actionable (for systemic change) goals of PAR. First, because individuals have agency in ecological systems theory, participatory techniques are needed. Second, because individuals are affected by their environments in ecological systems theory, action research techniques are needed. The rest of this chapter will explore the validity and implications of these assertions.

As I demonstrated in the previous chapter, an ecological systems view of health is both unique and preferable because it acknowledges that individuals have agency over their own health by naming them as a distinct system. Ecological systems theory holds that all systems interact, so that individual health is the result of the reciprocal influence of a number of factors. If the premise that individuals are unique systems with agency is truly embraced, there is then an ethical epistemic imperative for participation in research. The arguments presented earlier regarding subjectivity and research are expanded by feminist epistemologists Miranda Fricker (2007) and Linda Martin Alcoff (1995). In Epistemic Injustice, Fricker (2007) argues that individuals have an ethical responsibility to respect others as knowers, saying,

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\text{it is obviously an essential attribute of personhood to be able to participate in the spread of knowledge by testimony and to enjoy the respect enshrined in the proper relations of trust that are its prerequisite. A culture in which some groups are separated off from that aspect of personhood by the experience of repeated exclusions from the spread of knowledge is seriously defective both epistemically and ethically. (p. 58)}
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According to Fricker, these exclusions from knowledge-formation can come by way of testimonial injustice, where a member of a marginalized group is not believed, or by way of hermeneutical injustice, where people are denied the epistemic space in which to form salient knowledge about their lives. (Disbelieving a Black man's defense in a rape trial is an example of
the former while being unable to understand your boss’s advances as sexual harassment is an example of the latter.) Both being shunned from the human activity of knowledge formation and being unable to form important knowledge about your own situation should be addressed in participatory research. Linda Martin Alcoff’s (1995) essay “The Problem of Speaking for Others” brings these issues of individual agency of research subjects even closer to home, as she argues that speaking for or about others reinforces the powerlessness of these subjects. In other words, doing research to rather than with individuals acts against the ecological systems theory principle that individuals, no matter how disadvantaged, have agency. It is then clear that the ecological systems framing of the individual as a system with agency requires participation in research out of respect for them as fellow knowers.

Furthermore, I would like to expand this argument by pointing out that local or situated knowledge is valid and necessary for public health research. Public health does, on the surface, value knowledge of health and disease that is situated in people’s positions along lines of race, socioeconomic position, gender and more. However, this local or situated knowledge is often of merely instrumental use, serving as a way for practitioners to determine where they should intervene. Instead, I propose that the very act of public health promotion should work to grow knowledge of health and disease in relation to these factors such as sexual orientation and able-bodiedness. Growing this type of critical consciousness was the original aim of Freire (1970/1993) when he proposed using education to promote consciousness-raising. Encouraging this type of knowledge growth then promises new insights into the various systems related to health.

Having thus outlined the need for participation in research that results from the ecological systems theory’s acknowledgment of individual agency, I will next argue that because ecological systems theory says that individuals are affected by and can affect their environments, action-
oriented research techniques are needed. Action research is research that is focused on effecting change through the research process. Rather than attempt to depict health as a value-free, static system, the action element of participatory action research seeks to correct injustices and improve health outcomes.

Action research is first required by ecological systems theory because this framework reveals the ways that macro-system influences have unjust impacts on health outcomes, disproportionately affecting individuals by compounding racial, sexual, and other inequality. That the minimization of systemic injustices is a valid and necessary aim of public health research is not widely accepted nor is it widely rejected. In her article “An Ethics Framework for Public Health,” Kass (2001) establishes a line between public health work and social work. This line is, however, blurry, as she states that the ends of programs define whether they fall into the former category or the latter. For example, “If a program has as its goal to increase employment as an end in itself (rather than, for example, to increase employment as a means to improve socioeconomic status and therefore lead to improved health)…then the program is primarily a social program, not a public health program” (Kass, 2001 p. 1778). I side with Kass in asserting that programs designed to effect systemic change are valid and necessary in public health promotion, especially given the environmental focus of ecological systems theory.

Finally, ecological systems theory calls for action in research because individuals have the ability to impact their environments. Action should not just be a non-inclusive assault on systemic injustices but should empower individuals to impact their environments. Ecological systems theory shows that when one obstacle to good-health is removed, there is the possibility that a new one will emerge. Systems themselves are dynamic, and, when viewed in relation to other dynamic systems, the health environment is a subject of constant change. As such, health
promotion programs are only effective insofar as they give individuals the tools to respond to future obstacles.

I have then provided a thorough argument of the reasons why an ecological systems framework of health is required to employ PAR techniques because of its theory of individual agency, environmental effect, and change. This, I hold, is true of all areas of public health practice including epidemiology, a field that is perhaps most distant from the classification of research as “knowing others”. A paradigm shift has been recognized in this field toward “eco-epidemiology,” (Susser & Susser, 1996) and while some forward this conceptual paradigm without any acknowledgment of the need for changing research techniques, I side with Leung, Yen, and Minkler (2004) in saying that community-based participatory research is desirable for the type of knowledge it produces and its actionable components.

The next chapter details my own research on barriers toward using federal food assistance money to pay for local produce at a farmers market. For this, I used a PAR evaluation technique called empowerment evaluation. While evaluation is often not thought of as research, it is nonetheless an activity of fact-finding and knowledge-production that seeks to know, assess, and plan the actions of individuals or organizations. Concerns about respecting individuals as knowers and empowering communities to address challenges that were discussed in this chapter are as applicable to traditional research as they are to evaluation. Taken as a case study, my research touches on conceptual questions like the effectiveness of participatory evaluation and how my position as a researcher affects the course of the study while addressing practical matters related to using food assistance programs to build more inclusive local food systems.
CHAPTER THREE Applied Research: Evaluation of Food Assistance at OFMU

Food Assistance and Farmers Markets through an Ecological Lens

As I argued in Chapter 1, food assistance programs that stress local food systems fit easily into the ecological systems model of health. This model shows how individual health and well-being is the result of complex interactions within and among nested systems of influence ranging from the individual to the supranational level. Nutrition assistance at farmers markets is a multi-level intervention. On the individual level, low-income consumers have access to a place to purchase low or no-chemical fresh foods that can have positive effects on their nutritional intakes. Moving up a level into the micro-system, farmers market EBT programs offer individuals the ability to connect with others and grow social capital, offer small farmers economic opportunities, and encourage the sharing and creation of local knowledge on fresh food preparation. On an organizational level, these interventions strengthen farmers markets themselves, allowing farmers markets to then focus their goals inward, on the health of the community, and outward, on the health of the environment and local food system. Communities are then better equipped to feed themselves and can be strengthened by the connections made between sales organizations like farmers markets and aid organizations like food pantries. Through an ecological systems lens, societies and supranational structures are impacted by health promotion programs that emphasize local food systems because the demand for food produced in an environmentally conscious way is increased. The promotion of community food security in turn encourages biodiversity, socially and environmentally friendly farming practices, and more.

One prominent example of governmental programming aimed at making local foods more accessible is the United States Department of Agriculture's recent push to increase Electronic Benefit Transfer (EBT) use at farmers markets as a part of the Know Your Farmer
Know Your Food initiative. EBT is the new system in dispersal of government food assistance that replaced food stamps. Food assistance funds are transferred onto EBT cards at the start of each month and can be used like a debit card to pay for goods at certified supermarkets, corner stores, farmers markets, and more.

**Evaluation Background and Rationale**

I entered this complex system at the organizational level, volunteering to work with the Oxford Farmers Market Uptown (OFMU) on an evaluation of their EBT program. I believed first that doing this work would encourage community and individual health by making multiple systems more health-enabling. Moreover, evaluating the program would allow me to assess the realistic plausibility of using this type of intervention for nutrition (something I argued for in Chapter 1) and would give me the opportunity to assess the utility of participatory action research (abbreviated to PAR, a research paradigm I argued for in Chapter 2). On a more philosophical level, I was drawn toward this work because it gave me an opportunity to promote justice, both by strengthening a socially just intervention and by encouraging OFMU’s growth and ability to support social justice programs in the future.

Oxford, Ohio is a small, rural town in southwestern Ohio situated in the northwestern corner of Butler County. The town houses Miami University, a state-assisted school that I attend with a student population of approximately 16,000. As a result, much of the town’s population of 22,000 and economy is connected to the university. Oxford’s population is primarily Caucasian (91.2%) with a small African American (4.3%) and Asian (2.4%) and Hispanic (1.4%) population (City of Oxford General Characteristics, 2000).

Despite the wealth of many students that live in Oxford, food security is not a reality for all residents of Oxford and surrounding area. In 1999, 43.7% of individuals and 13.4% of families in Oxford were below the poverty level (City of Oxford economic characteristics, 2000).
A number of Oxford organizations offer assistance for low-income residents. The Family Resource Center offers families, especially those living in adjacent mobile housing, emergency assistance with bills, a thrift store, GED and ESL classes, family support, referrals, and a community garden. Food from the community garden is added to donations at the Oxford Community Choice Pantry, a well-stocked pantry that offers low-income families the opportunity to receive free food bimonthly with supplemental food on major holidays. At both of these locations clients are offered assistance in filling out applications for Ohio Food Assistance. In 2007, there were an average of 17,207 adults and 17,566 children using EBT food assistance per month in Butler County with an average of $842 spent on each participant in the 2007 fiscal year (Furmon, Jolivet, & Dixon, 2009). These statistics indicate that just over 13% of residents of Butler County receive EBT Food Assistance. Looking more locally, in December 2009, there were 1,008 total and 570 adults in the Oxford, Ohio zip code (45056) receiving federal food assistance with an EBT card (Butler County DJFS, 2009).

In 2009, OFMU applied for and was granted $1,008.07 through the Ohio Department of Agriculture’s Ohio Farmers’ Market Access Project Electronic Benefit Transfer Infrastructure Grant. With this grant, OFMU was able to purchase an EBT machine, train vendors how to use it, advertise, and collect data about EBT use. I first approached OFMU about evaluating their EBT program in late August of 2009 after speaking with market manager Larry Slocum, who was enthusiastic about the new payment option but was disappointed about how few shoppers were using EBT to pay for their goods.

*Evaluation Goals, Methods, and Values*

As OFMU and its EBT program are uniquely situated at an organizational level, with close ties both to smaller systems like individuals and families and to larger systems like the community and the state government. Because of this, I had the option to focus my evaluation
in a number of directions. I worked closely with Susan Callan, OFMU president, to focus the course of the evaluation. We decided that the primary goal of the evaluation would be identifying and addressing barriers to using EBT at OFMU in order to make local foods more accessible to all members of the Oxford community. We presented this goal to the OFMU board and established the following sub-goals: to strengthen the economic vitality of local independent farmers, butchers, and bakers who are OFMU vendors; increase OFMU's ability to serve the community by integrating evaluation into the day-to-day processes of program planning and implementation; and expand the knowledge-base on EBT-promotion at farmers markets for the use of farmers markets nationwide.

I selected Empowerment Evaluation (EE) for the evaluation method because it fits nicely into the participatory action research paradigm (discussed extensively in Chapter 2), which seeks to strengthen individual programs and whole organizations through participatory, sustainable evaluation while also encouraging organizations to view evaluations as tools for change (Wandersman, Snell-Johns, Lentz, Fetterman, Kenner, Livet, et al., 2005). The primary evaluation tool that I drew from the EE literature was a 10-step “Getting to outcomes process” that asks the following questions:

1. What are the needs and resources in your organization, school, community, or state?
2. What are the goals, target population, and desired outcomes (objectives) for your school/community/state?
3. How does the intervention incorporate knowledge of science and best practices in this area?
4. How does the intervention fit with other programs already being offered?
5. What capacities do you need to put this intervention into place with quality?
6. How will this intervention be carried out?
7. How will the quality of the implementation be assessed?
8. How will the intervention work?
9. How will continuous quality improvement strategies be incorporated?
10. If the intervention is (or components are) successful, how will the intervention be sustained?
(Wandersman, Imm, Chinman, & Kaftarian, 2000)
These ten questions were a useful and approachable way to create an actionable plan to ask pertinent questions about the EBT program and to make sustainable changes. This model attempts to integrate evaluation into each step, even asking about best-practices and theories of change in the brainstorming stages.

What I found most useful in the EE literature was not, however, this concrete tool but the values of outlined in Wandersman and Fetterman's (2004) *Empowerment Evaluation Principles in Practice*. These ten values are: improvement, community ownership, inclusion, democratic participation, social justice, community knowledge, evidence-based strategies, capacity building, organizational learning, and accountability. While these values may seem either self-evident or vague, I drew a number of lessons from this list. First, I learned that evaluation should not approached as an obligation but as an opportunity for community development. Next, I learned that my jobs as an evaluator were to facilitate self-evaluation, to invite a variety of stakeholders to participate, and to offer skills-building where possible. Finally, I learned that capacity building and organizational learning were the processes through which organizations could grow through evaluation, ultimately leaving the organization with better tools for self-evaluation. To these ten values, we brought personal and organizational values for environmental sustainability, community food security, community health, nutrition, and equal access to goods.

**Evaluation Activities**

From August to December 2009, I focused the evaluation on questions one through four in the Getting to Outcomes process because I wanted to understand the culture of the organization. Furthermore, I wanted to know how the organization’s activities fit into the larger
social and scientific ecosystem. The months of December, January, and February were spent analyzing data. From February to April, we were blessed with the skills of English Technical Writing graduate student James Prempeh, who helped to design marketing materials for distribution. My collaboration with OFMU will likely continue into the 2010 market season (May-September) as we attempt to focus on the sustainability of the evaluation.

I planned day-to-day evaluation activities in collaboration with OFMU president Susan Callan and carried out tasks personally. I believe in maximum integration into communities with whom I am learning - so I continued to serve as a Kofenya Coffee vendor at OFMU when possible while attending board meetings, interacting with nine OFMU vendors to compile prices, meeting with three leaders of local aid organizations, attending the national Community Food Security Coalition conference, interviewing nine customers at the Oxford Community Choice Food Pantry, and surveying eleven farmers markets in Ohio that also accept EBT. I then came into contact with and attempted to involve a diverse group of stakeholders with interests both up and downstream of OFMU’s EBT program.

When I met with these stakeholders, the potential barrier to paying for goods with EBT at OFMU that was mentioned most often was the belief that the market simply was not affordable for low-income consumers. OFMU wanted to study this barrier for some time, so I conducted a price comparison between equal goods at OFMU and two local supermarkets that also are certified EBT vendors, Kroger and Wal-Mart. Nine of eleven OFMU produce, meat, and egg vendors that I contacted gave me prices for comparison as well as anecdotal insight. I averaged these prices among vendors and compared them to prices at Kroger and Wal-Mart, including organic prices where available. Ultimately, I color coded the data (see Appendix 2 – Price Comparison) to make it easy to compare average prices for 45 items at OFMU, Kroger, and Wal-Mart.
This study showed that it was economically feasible and even thrifty to buy some fresh goods at OFMU. I was even surprised at the practical affordability of many items at the market. Eight items including tomatoes, bell peppers, and apples were most affordable at OFMU, seven items including corn, cucumbers, and grapes were more affordable at OFMU than at one of the supermarkets, and the remaining thirty items were most affordable at the supermarket. This information alone was powerful, but it needed to be more usefully organized.

In the spirit of action research, I decided to analyze these prices in a way that would mimic real-life considerations. First, I compiled a market basket of goods based off of the USDA’s Thrifty Food (USDA, 2007) that nearly filled the recommendations for a family of four in the potato, other vegetable, whole fruit, and egg categories (see Appendix 4 – Market basket). This basket was $10.01 less expensive at OFMU than average supermarket prices. This is important because the Thrifty Food Plan is what the USDA uses both to formulate food assistance allotments and to recommend healthful eating for low-income Americans.

Finally, I searched on the USDA’s recipe database for individuals who receive food assistance for a recipe that could be prepared with items featured in the price comparison (see Appendix 5 – OFMU farm-fresh recipe). The cost of making this easy recipe that fed four people was only 78¢ more expensive at OFMU than at the supermarket. These price comparisons showed that grocery shopping for several key items or for a seasonal recipe can be quite affordable at OFMU. This, of course, does not imply that shopping for groceries exclusively at OFMU would be more affordable, but it shows that if a fear of high prices was a barrier toward low-income community members shopping at OFMU with EBT, evidence could easily be produced to put these fears to rest.

Stakeholders I interacted with in the planning stages of the evaluation next speculated that issues such as lack of transportation, unfamiliarity with farmers markets, and lack of desire
for fresh fruits and vegetables could stand as barriers toward EBT-use at OFMU. To find out if these were, in fact, barriers, I conducted nine short (5-10 minute) interviews with clients at the Oxford Community Choice Food Pantry (see Appendix 3 – Oxford Community Choice Food Pantry interviews). These interviews were approved by the Institutional Review Board for Human Subjects Research (approval number 09-173). Just as with the farmers market, at the food pantry I attempted to integrate myself into the organization as much as possible. That meant that after I introduced myself to clients and explained that I would be soliciting their time for voluntary interviews, I helped to assemble registration materials for clients, clean children’s toys, guide clients through the food selection process and more.

The interviews revealed a number of interesting values, habits, and suggestions regarding shopping, OFMU, and EBT. In general, the clients interviewed highly valued both freshness and price, expressing a tension between healthy eating and budget shopping in several different ways. All of the interviewees had been to a farmers market and reported positive experiences with the food and the atmosphere, although many associated farmers markets with high prices. None of the clients interviewed knew that OFMU accepted EBT yet many had useful suggestions about advertising, especially at local aid organizations and on bulletin boards.¹ This meant that advertising would have to be a top priority for intervention because there was no awareness of this payment option but there was a high comfort-level with farmers market shopping and goods. This went directly against the assumptions of many stakeholders that I talked to early in my project and showed that food assistance at OFMU had the potential to be quite viable.

¹When we formulated the interview questions, we thought that it would be interesting to collect quantitative data with the qualitative data, so we included a number of questions about how much, on a scale from one to ten, clients valued things such as price and freshness when they were shopping. I did not have time to do any pilot-testing of the interview questions and learned while giving interviews these questions would only yield qualitative data.
OFMU board members were finally curious about best-practices in EBT promotion across the state and country. I attended the Community Food Security Coalition’s annual conference in Des Moines, Iowa and was surprised to learn that this was a highly under-researched area. I then turned to the sixteen other farmers markets in Ohio that were approved EBT vendors. Eleven markets responded to questions about how EBT fit into their market and community, what challenges they faced, and what they did to confront these challenges.

The first remarkable thing from these calls was the great variability in EBT sales that markets were met with in their first season. While one market reported less than $50 in EBT sales for the entire season, another sold over $200 of goods with EBT in their first week. I was also struck by the creativity used by farmers markets in thinking about both partners and sites for advertisement depending on their local resources. Most importantly, it was clear that establishing a partnership with the local agency issuing EBT cards (ex: Department of Job and Family Services) was difficult but fruitful.

I compiled all of this information in a formal evaluation report (Appendix 1 – OFMU EBT evaluation report) that I shared with the OFMU board and a number of interested farmers markets. This evaluation report made four general recommendations, which each had at least two corresponding strategies. The objectives were to increase awareness among low-income members of Oxford community about OFMU hours and payment options; increase knowledge among OFMU shoppers about how to use EBT at the farmers market; educate low-income community members about the affordable, fresh food options at OFMU by addressing the perception that farmers markets are more expensive; and add to the knowledge base on best-practices in farmers market EBT-promotion. I intend to work with OFMU for my remaining time in Oxford to make these plans actionable, measurable, and sustainable.
Methodological Reflection

Before commenting on the utility or consistency of empowerment evaluation (EE) in practice, I have to examine the extent to which project this should, in fact, be considered an example of EE. Perhaps the simplest way to do this is to compare evaluation outcomes with the values outlined in Evaluation Principles in Practice (2004). The first value listed is improvement. This value was certainly upheld, as I recommended a number of ways to improve the program and intend to see many of these come to fruition. The next two values, community ownership and democratic participation are closely related. With a volunteer board, it was impractical to involve all OFMU board members in each part of the planning and data collection process. I did, however, plan each activity with the president and solicited ideas and feedback from other board members at each step of the process. Thus, while I shouldered the brunt of the work, a variety of stakeholders participated at key points in the evaluation, leading to a general sense of community ownership.

I upheld the next two values, inclusion and community knowledge, by seeking input from a wide range of upstream, downstream, and horizontal stakeholders. Upstream stakeholders included OFMU board members, downstream stakeholders included potential shoppers interviewed at the food pantry and OFMU vendors, and horizontal stakeholders included other farmers markets in Ohio accepting EBT and other local aid organizations. The obvious failing on this count is that potential low-income consumers were not actively solicited for continued participation.

Social justice is the next value that EE espouses. This was first advanced simply by trying to improve a program that increases low-income consumers’ ability to access low-chemical, healthy, fresh food and strengthens the local fair-labor agricultural economy. I also
hold that this evaluation advanced social justice by incorporating the voices of a wide number of stakeholders.

The next value, evidence-based strategies, proved to be a difficult one to pursue. After learning that there were no documented evidence-based strategies or best-practices in farmers market EBT promotion, we were forced to add to the evaluation the goal of compiling these practices. Thus, while it was impossible to make recommendations based on scientific studies, I upheld this value when I went to the Community Food Security Conference and contacted Ohio farmers markets that accept EBT in an attempt to make recommendations that were as informed as possible. Furthermore, I recommended that OFMU continue to contribute to the knowledge pool related to EBT-promotion at farmers markets.

The final three values are capacity building, organizational learning, and accountability, all of which relate to the implementation of interventions. I consciously attempted to involve OFMU as much as possible in each step of the evaluation to ensure that I could pass on knowledge of my methods where it would be useful. I did not, however, engage OFMU in many skills-building activities because, for the most part, the diverse skills of the market board left little wanting. Two examples of capacity building that I did engage in were showing Susan Callan how to manipulate the spreadsheet on Google Docs and sharing a customer survey with the advertisement chair of the board. As such, organizational learning can mainly be said to have been accomplished when OFMU learned about how their prices compared to supermarket prices, low-income consumers’ perceptions of the market and their earlier marketing campaigns, and the success of their market’s EBT program in relation to others. Accountability is a value that is incredibly important for sustainability and incredibly difficult for a volunteer-run non-profit. Thus, I cannot claim to have impacted OFMU on the count of accountability through this
evaluation, although I hope to have at least engendered a value for the power of data in formulating interventions.

Thus, on nearly every count, this evaluation upheld the values of EE. As it was also guided by the 10-step “Getting to Outcomes” method, my work can be used to analyze the criticisms and defenses of the technique. The full debate is found in an article titled “Empowerment evaluation: yesterday, today, and tomorrow.” (Fetterman & Wandersman, 2007) The article first defends EE against conceptual ambiguity, methodological specificity, and outcomes. EE does not suffer from methodological ambiguity, but instead offers evaluators a set of tools and values that can be adapted to a variety of settings.

Fetterman and Wandersman (2007) next address claims related to the impact of the evaluation on others. They argue that the method does not aim to, and in fact no one can, “empower others” (Smith, 2007), but that EE creates an environment for development (Fetterman & Wandersman, 2007, p. 182). The concept of concrete empowerment through evaluation was an ontological concept with which I struggled. In the end, I experienced the ways that EE methodology created opportunities for learning and capacity building, and can therefore attest to the developmental environment that self-evaluation creates.

The critique that the goals of organizations are held above the goals of consumers, was also a concern with which I struggled. I came to the evaluation with an interest in advancing public health, but was aware that at the end of the day I was working for a coalition of small businesses; money had to trump health. When I interviewed and solicited suggestions from potential low-income customers and others, I did incorporate and legitimate the viewpoint of the program’s consumers. This, of course, was done to advance the goals of OFMU and not those of the people that consented to be interviewed. Because of these tensions, the EE value for social justice must be shared by the organization being evaluated in order for EE to fit with the
implicitly emancipatory agenda of PAR as a whole. In short, EE can certainly help organizations achieve an effective evaluation and help them become more self-sustaining, but both the organization and evaluator need to have a social justice focus for the community to be optimally strengthened.

On a related note, EE has been called ambiguous about whether it aims for practical or transformative outcomes. Fetterman and Wandersman (2007) claim that both can be achieved (p. 183), a claim that seems to be possible if organizations integrate evaluation into future activities. In my experience, a practical evaluation was most visibly achieved, but, as we asked different questions than a traditional evaluation of EBT would, it seems to have the power to be transformative as well. Already, OFMU is discussing next steps in sustainably strengthening and expanding its programs and capacities.

It is finally important to ask how legitimate the technique is as a tool for evaluation, especially given the non-traditional role of the researcher and the action-oriented nature of the technique. I benefited from having both a flexible, systematic plan of action and an associated set of values. The methods may have, at first, appeared ambiguous, but I soon realized that I could use the values associated with EE to guide my activities that could not be specifically prescribed in a method. Because EE aims to help organizations answer questions about their programs, it is important that there are a set of principles, idealistic or not, to guide activities that are unique to the organization.

Finally, fears of bias, agendas, and the use of social advocacy among evaluators have been defended with the logic that self-evaluations are perhaps more successful because participants have a vested interest in seeing programs succeed (Fetterman & Wandersman, 2007). While these considerations certainly resound with my belief in the need for research that is both participatory and action-oriented for ecological issues, these defenses do not go far
Empowerment evaluation has the potential to encourage organizations to reflect on the “insider” knowledge afforded them by their epistemic and ecological systems and to turn these reflections into actions for social change. To truly defend the belief that self-evaluations that are action-oriented are not just effective but necessary would demand a revision of empowerment evaluation that would further engage consumers. This is a change that would be benefit the consistency of the method and would benefit all levels of influence that interact with organizations. Although this evaluation technique is results-based, its stated values demand further consumer input, integration, and empowerment. Such a change would ring true with theories of social ecology that underlie the method itself, as it would act on the knowledge that levels of environments and individuals cannot be studied independently.

Moving beyond the method of evaluation, it is important for me to finally reflect on my role as an evaluator and researcher. Public health researcher Nina Wallerstein (1999) used EE to evaluate New Mexico's Healthier Communities project and talks extensively about how the power relationship between the evaluator and the community affects the evaluation itself. My experience as a researcher was uniquely marked by my status as a learner, something that led to a number of tensions in my own relative position of power. On one hand, being a learner meant that I was young, inexperienced, and lacking in knowledge. On the other hand, I was a learner who was privileged to be earning a university degree and had the concurrent leisure and motivation to do the work on data collection and analysis. And this was a position that I embraced. I continued to work as a vendor at OFMU in an attempt to learn about the market from several perspectives, offered to complete a variety of tasks at the Oxford Community Choice Food Pantry to understand how Oxford food assistance works, and freely asked low-income food pantry clients and farmers market managers what to do to improve OFMU’s EBT program.
I do not believe that this is a model of research that should be discounted, but embraced. If participatory action research claims that all parties can benefit from a “subject as researcher” model, all parties can certainly benefit from a “researcher as subject” model as well. I am not advocating for a simple exercise in trading places, as this would be reductionist at best, ignoring the very elements of each individual’s situation that make power-negotiations necessary (Young, 1997). Instead, my experiences with experiential learning through participatory action research stand as a testament to the need to practice methodological humility (Narayan, 2003), both in considering what should be considered legitimate forms of knowledge-production and in considering what can be known through research.
CONCLUDING THOUGHTS

In this project, I have argued first that nutrition outcomes can be understood by looking at the interactions within and among nested systems of influence. Psychological factors, built and perceived environments, and agricultural policy are all of legitimate interest to people promoting healthy eating. According to this ecological systems model of health, nutrition is more about how individuals come to put particular foods in their bodies than about what food goes in or how it affects the physical self.

Next, I argued that research and practice cannot be divorced from each other. Furthermore, ecological systems theory cannot be divorced from participatory action research. By identifying the individual as a system that interacts with other systems, this theory made it impossible to take the individual out of the research equation. Precluding participation in research would risk losing valuable insights and would miss the opportunity to create sustainable change through research, change that would be effected by promoting consciousness-raising and building capacities. Furthermore, the fact that each complex level reciprocally interacts with others means that the promotion of social justice is a natural goal of health-promotion.

My personal work identifying and addressing barriers toward using Electronic Benefit Transfer (EBT) food assistance to pay for food at the Oxford Farmers Market Uptown (OFMU) showed the ecological nature of nutrition and participatory action research at work. Using the participatory evaluation technique Empowerment Evaluation allowed me to work with OFMU to decide what questions needed to be answered before proposing interventions. Interviewing clients at the Oxford Community Choice Food Pantry, comparing prices between OFMU and local supermarkets, and contacting other Ohio farmers markets accepting EBT provided the market with a comprehensive picture of local knowledge of payment options at OFMU, local and state perceptions of farmers markets among low-income consumers, the affordability of buying
local food, the relative success of OFMU, and possible locations and ways in which EBT-use at OFMU could be promoted. Perhaps most surprisingly and promisingly, shopping at farmers markets seemed to be an economically and culturally feasible option for low-income consumers in Oxford. As a result, I developed an informational card for food pantry clients, worked with a fellow student to create an informational brochure addressing barriers, and planned possible future directions for intervention with OFMU council. The evaluation technique largely upheld its own claims to improvement, community ownership, inclusion, democratic participation, social justice, community knowledge, evidence-based strategies, capacity building, organizational learning, and accountability. It ultimately fell short, however, by focusing more on the gains of the organization than on participation and gains of consumers. Embracing a “researcher as learner” role, I was able to get a more qualitatively and interpersonally rich picture of EBT-use at OFMU.

Taken as a whole, this project is an appeal to expand our thinking and to ask what we can learn when we break down distinctions between ends and means. Understanding that subjects can be researchers and understanding that research should be practice expands the possibilities of what can be known and what should be done about this knowledge. This project simultaneously asks all parties involved in community nutrition to engage in dialogue from their own unique perspectives and to demand more of their work. It encourages community organizers to work as policy makers and disadvantaged individuals to work as researchers. It argues that empowerment and the reduction of the felt effects of racism and classism can be legitimate goals in health promotion and that sustainability must always be considered when beginning a public health project. These lessons need not be limited to community nutrition and food assistance and the application need not be limited to farmers markets. Taken seriously, the lessons of ecological systems theory and participatory action research offer a paradigm-shift in health
promotion that truly works for the well-being of the whole individual and the transformation of the environments that they call home.
WORKS CITED


Appendix 1 – OFMU EBT Evaluation Report

Executive Summary
Responding to low utilization of the Oxford Farmers Market Uptown's (OFMU) ability to accept Electronic Benefit Transfer (EBT) as payment, this participatory evaluation aimed to create a larger, continually growing pool of EBT users at OFMU by identifying and addressing barriers to utilization of EBT at OFMU in order to serve all of the Oxford community by increasing access to healthy food while profiting local farmers.

In order to identify barriers toward EBT-use at OFMU, three fact-finding studies were conducted. These were a price comparison to understand whether price was a real or perceived barrier, interviews to understand low-income consumers' shopping habits and values, and a survey of other Ohio farmers market EBT vendors to compare barriers and interventions.

- The prices of 45 items were compared between OFMU, Kroger, and Wal-Mart. Of these, 8 were always more affordable at OFMU, 7 were more affordable at OFMU than at one of the supermarkets, and the remaining 30 were more affordable at the supermarket. A market basket of goods based off of the United States Department of Agriculture’s (USDA) Thrifty Food Plan for a family of four was $10.01 less expensive at OFMU than a supermarket. A USDA recipe for four was $0.78 more expensive at OFMU than at a supermarket.

- At the Oxford Community Choice Food Pantry, 9 shoppers were interviewed. These interviewees expressed a high value for quality, freshness, and low prices when shopping and a tendency to shop in a number of stores to get the best deals. All of the interviewees were familiar with farmers' markets but none knew that OFMU accepted EBT.

- Of the sixteen Ohio farmers markets approved to be EBT vendors, eleven were responded to outreach and were surveyed. Success in the first seasons of markets was highly variable, ranging from less than $50 over the season to over $200 the first week. This survey revealed the importance of involving the Department of Job and Family Services (DJFS) in outreach and of thinking creatively about partners and venues for advertising.

Based off of the results from these studies, the following goals are recommended. Suggested activities to accomplish these goals can be found in the results section.

1. **Awareness**: Increase awareness among low-income members of Oxford community about OFMU hours and payment options.

2. **Internal accessibility**: Increase knowledge among OFMU shoppers about how to use EBT at the farmers market.

3. **Affordability**: Educate low-income community members about the affordable, fresh food options at OFMU by addressing the perception that farmers markets are more expensive.

4. **Sustainability**: Grow the knowledge base on best-practices in farmers market EBT-promotion.
Rationale and Method

Program History and Goals

In June 2009, the Oxford Farmers Market Uptown (OFMU) was granted a Specialty Crop Block Grant by the Ohio Department of Agriculture (ODA) through the Ohio Farmers' Market Access Project Electronic Benefit Transfer (EBT) Infrastructure Grants. This grant was established by the ODA to increase low-income consumers' access to local, fresh food, thereby strengthening agricultural sustainability and community food security.

In the initial months of May to September 2009, the number of EBT sales per month averaged 2.8 with occasional weeks ranging from 0 to 3 EBT sales. The dollar amounts of these sales varied greatly, ranging from the $50 mode with weekly EBT purchases ranging anywhere from $9 to $100. Monthly, EBT sales averaged $104.60 resulting in $523 of EBT sales over this five month period. In this same period, vendors redeemed $431 from these EBT sales.

The goal of this evaluation was then to identify and address barriers toward utilizing EBT at OFMU. This is a goal that then aims to increase the ability of all people to access local food and to increase the customer base of small farmers in and around Oxford, Ohio.

Empowerment Evaluation

Evaluation activities were guided by the 10-step “Getting to Outcomes” model developed by Wandersman, Imm, Chinman, and Kaftarian (2000) for use in empowerment evaluation (EE). This model seeks to use the evaluation process to make organizations more self-sufficient by providing the tools for self-assessment and by making self-evaluation a part of organizational culture (Wandersman, Snell-Johns, Lentz, Fetterman, Kenner, Livet, et al., 2005). The model asks the following questions:

1. What are the needs and resources in your organization, school, community, or state?
2. What are the goals, target population, and desired outcomes (objectives) for your school/community/state?
3. How does the intervention incorporate knowledge of science and best practices in this area?
4. How does the intervention fit with other programs already being offered?
5. What capacities do you need to put this intervention into place with quality?
6. How will this intervention be carried out?
7. How will the quality of the implementation be assessed?
8. How will the intervention work?
9. How will continuous quality improvement strategies be incorporated?
10. If the intervention is (or components are) successful, how will the intervention be sustained?

(Wandersman, Imm, Chinman, & Kaftarian, 2000)

The values of this evaluation were consistent with those outlined in Empowerment Evaluation Principles in Practice (2004) and include improvement, community ownership, inclusion, democratic participation, social justice, community knowledge, evidence-based strategies, capacity building, organizational learning, and accountability.
Activities

Day-to-day evaluation activities were planned in collaboration with OFMU president Susan Callan and were carried out by the researcher. Topics discussed in these meetings included the ways in which accepting EBT at OFMU aligned with OFMU’s overall goals, OFMU goals for the evaluation, OFMU history, OFMU’s relationship with other local organizations, knowledge of best-practices in EBT promotion at farmers’ markets, possible barriers toward EBT-use at OFMU, format for interview questions, and use of spreadsheets for data collection. Further evaluation activities included attending OFMU board meetings, attending the Community Food Security Coalition’s national conference, interacting with nine OFMU vendors to compile prices, and meeting with three leaders of local aid organizations, and contacting each of the sixteen Ohio farmers markets that are also certified EBT vendors.

Price Comparison

In order to achieve the project goal to create a larger, continually growing pool of EBT users at OFMU by identifying and addressing barriers to utilization of EBT at OFMU with the intended outcome to serve all of the Oxford community by increasing access to healthy food while profiting local farmers, a price comparison was conducted between OFMU and two local supermarkets, Kroger and Wal-Mart, that accept EBT. Price was most often cited among stakeholders as a potential barrier toward EBT-use at OFMU. This comparison then aimed to determine just how different the prices were in order to direct future interventions. To do this, eleven OFMU vendors of produce, meat, and eggs were contacted in person, received an explanation of the project, and were asked if they would be open to be contacted at a later date to obtain a current list of prices. Although seeds and plants intended for consumption, baked goods intended for later consumption, cider, honey, herbs, and canned goods sold at OFMU may be purchased using EBT, the primary focus of OFMU and of its EBT program is fresh, raw food offerings. Also, many of these items are uniquely crafted and would be difficult to compare with store offerings, leading the price comparison to focus exclusively on fresh produce and protein.

Nine vendors provided prices for comparison. Two vendors were USDA certified organic, although all vendors noted a dedication to chemical-free or low-chemical farming practices. During the course of these conversations, many vendors provided insights into potential barriers toward EBT-use at OFMU, their experiences with food assistance programs at OFMU and other farmers’ markets, and their philosophy in regard to food pricing. Prices were then averaged among vendors and were standardized to price per pound, as needed. This information was entered into a spreadsheet on Google Docs so that it would be widely accessible. These prices were compared to prices at Kroger and Wal-Mart, including organic prices where available. Items available at OFMU but not at both of these locations, notably lamb and produce varieties that are not farmed on a large scale, were removed from the list. No organic meat prices were collected and prices for eggs were for those coming from cage-free chickens. Ultimately, the spread sheet (Appendix 2 – Price Comparison) compared average prices for 45 items at OFMU, Kroger, and Wal-Mart with six organic items included.

Interviews

Next, nine interviews averaging 5-10 minutes in length were conducted with shoppers at the Oxford Community Choice Food Pantry in order to identify the extent to which price, interest, familiarity, comfort, internal and external access, demand, and other variables were
barriers toward EBT use at OFMU. The Oxford Community Choice Food Pantry was selected as the sole interview sight because it is a high-traffic aid organization that sees many of the same clients frequenting other aid-organizations, it has a private room in which to conduct interviews, and its focus is also on food assistance. The food pantry has such high traffic because the roughly 200 families it serves are eligible to shop there every 14 days. Interviews were then conducted on four out of six days the pantry was open in a fourteen day period, thus avoiding client overlap. These interviews were approved by the Institutional Review Board for Human Subjects Research, approval number 09-173.

When the majority of the clients had finished filling out required paperwork, an introduction was made in which clients were informed, according to the recruitment script, that they would be approached about interest in being interviewed about preferences in food shopping. During four, two hour sessions, clients were recruited for nine audio-recorded interviews averaging 7.5 minutes that, according to interview questions, asked about values when shopping for food, familiarity with OFMU and other farmers’ markets, and potential interventions to address barriers toward OFMU EBT-use (Appendix 3). This ultimately served to build a knowledge-base about low-income Oxford community members’ values and habits in food shopping as well as perceptions and knowledge of OFMU and other farmers’ markets.

**Survey of Ohio EBT at Farmers Markets**

Finally, each of the sixteen farmers markets in Ohio accepting EBT were contacted in an effort to understand the performance of OFMU in relation to other markets and to get a sense of best-practices in EBT-promotion at farmers markets. The names of these markets were obtained through the Ohio Department of Job and Family Services publication entitled “Ohio EBT Farmers’ Market Project” from April of 2009. Towns or cities with populations under 100,000 were contacted by telephone, where possible, while larger cities were contacted by email. Respondents were asked a number of questions about their market structure (hours and days open, number and duties of staff/volunteers, and number of vendors), program history (numbers and trends in EBT-use, first year experience, barriers, and interventions), and program future (marketing strategies, strategies to improve customer utilization, and other plans). Eight markets that draw off of populations under 100,000 and three markets that draw off of a population over 100,000 responded and participated in an interview.

**Results**

**Price Comparison**

In the spirit of action research, measures for analysis were selected on lines of approachability, utility, and real-life salience. Thus, raw data are presented in a table where differently colored rows indicate how competitive OFMU’s prices are. (Appendix 2) Green rows indicate items that are more affordable at OFMU than at both Kroger and at Wal-Mart. There are eight of these items. Yellow rows indicate items that are more affordable at OFMU than at one of these places but not the other. There are seven of these cases and the remaining 31 items were more affordable at both Kroger and Wal-Mart.

Next, a “market basket” was compiled for a family with one male and one female (age 19-50), one 6-8 year old child, and one 9-11 year old child according to the United States Department of Agriculture’s (USDA) 2006 “Thrifty Food Plan”. (Appendix 4) This basket includes the weekly recommendation for the potato, other vegetable, whole fruit, and egg...
category for this family. Categories and corresponding foods were selected according to variety, availability, and price, mimicking the habits of a thrifty shopper. Prices were averaged for Kroger and Wal-Mart and totaled $55.61 for this basket, as compared to $45.60 at OFMU. A shopper at OFMU would spend $10.01 less than a shopper at Kroger or Wal-Mart purchasing the same basket of goods.

Finally, a price comparison was conducted for preparing one of the recipes found on the USDA's SNAP-Ed Connection Recipe Finder database. (Appendix 5) The recipe, Chicken Ratatouille, was selected because all of the items could be purchased at OFMU and because it was relatively simple to prepare. Again, prices were averaged for Kroger and Wal-Mart. A supermarket shopper would spend $12.67 for the meal, averaging $3.17 for each of four people. With OFMU prices, the total was $13.45 or an average of $3.36 per person. A shopper at OFMU would spend $0.78 more total or $0.19 more per person than a shopper at Kroger or Wal-Mart preparing the same recipe.

Interviews: Values

When asked generally what mattered most to them when shopping for food, interviewees most often said they cared about quality or freshness (5 times), price (3), natural food (2), selection (1), nutrition (1), and taste. Generally how easy it is to get to the store was important, as some couldn't drive and others acknowledged that they were in a unique situation because they could drive. The flexibility of store hours was valued by many and several commented on the convenience of a 24-hour store. Interacting with others while shopping and knowing who made or grew your food was of variable worth to interviewees, with the latter often informing decisions to buy certain foods but not excluding the purchase of other foods.

How locally food was grown was also of variable worth, as some interviewees valued this highly, another grew their own food, and others saw a correlation between local food and nutrition, affordability, and freshness. Interviewees were very divided on the impact of chemicals and pesticides on their shopping habits, basing many beliefs off of opinion. One interviewee said,

"You know I'm not up on that much. I think it's not. I make sure I wash everything real good, but to me it seems like they need some kind of pesticide. But those that grow things organically more than not I don't know what they do to keep pests away. So I really I don't know I just make sure I wash my food more than once."

Furthermore, one interviewee equated organics with higher quality and taste, saying, "Well actually, I just went to the store the other day and I picked up organic bananas and I didn't know they were organic but I tried one and they're so much better."

Price was very important to interviewees, but all acknowledged the tension between price and freshness. One interviewee said simply, "It's extremely important. The lowest price for the freshest stuff," while another elaborated, saying,

"The price is very important. It seems to disqualify other things that I said, but the price is an eight [in importance on a scale from 1 to 10] also. But sometimes you have to make a choice of whether something is more healthy for you or the price. I mean sometimes you will give in on one."
Finally, most interviewees valued variety while they were shopping, as many liked to bargain hunt across several locations, although some of the people interviewed felt they had too many choices while shopping.

*Interviews: Shopping for and Cooking with Fresh Foods*

When asked if they were satisfied with the quality and amount of produce in their refrigerators, interviewees expressed the need to balance the desire for fresh fruits and vegetables and the need to be fiscally responsible. Several people put this in terms of trying to get enough produce without fear of it spoiling, while one stated, "I'd like to have more fresh fruits and vegetables but I cannot afford them." Several expressed a desire to have better quality to choose from and one stated,

"I would like to get better quality. If I can get you a for-instance, I bought oranges last week. They were terrible. I tried to get them today at a different place. They were sickening looking and I would think that Florida advertises Florida oranges."

All interviewees emphasized a high amount of produce in their grocery purchases, although what they could get was often variable. Similarly, all interviewees cooked at least the majority of the time, often supplementing boxed foods with fresh ingredients. Frozen or pre-prepared meals were generally avoided on counts of taste and price, although one interviewee ate frozen or pre-prepared foods when their health was not well.

*Interviews: Shopping and Farmers Markets*

When asked why they shop for food where they do, interviewees mentioned price (5 times), accessibility or convenience (4), quality or freshness (3), variety (1), habit (1), and the healthfulness of foods at different locations (1). All interviewees had been to a farmers market before and three out of nine had been to the Oxford Farmers Market Uptown before.

Generally commenting on farmers markets, selection was most often mentioned (4 times), followed by comments on the interactions or experience (3). One interviewee commented, "Oh it was great. They've got this selection plus you're getting the interaction between typically it seems like they...I mean you're actually with farmers, or the supplier is there. And you can discuss the produce." Another said,

"It's a wonderful place to walk around. It's reminiscent of the old movies where they're walking around in England or something. So it's really nice to see the canopies open and the people standing there with their stuff bickering the price."

After that, several people mentioned the high price (3 times), one person mentioned difficulties with walking around, one person mentioned quality, and one person mentioned health, commenting, "I know that it's the best food that I can get. The closer to home you can eat, the better. The healthier."

Commenting on OFMU specifically, interviewees most often mentioned conversations they had with others about the market (5 times), followed by perceptions that the prices were high (4) and the quality (2) and selection (1) were good. One interviewee who had never been to OFMU said, "I've heard it's pretty good. You know they have the good selection and the quality of the produce is pretty well. I mean I hear rumors both ways saying it's overpriced." Another who had been to the market said,
"I personally think that their fresh produce is a little bit on the high side and what I bought there is when I've had a couple extra dollars in my pocket. I buy a loaf of let's say zucchini bread for instance which I make myself but sometimes it's a treat."

For another, quality trumped price on the subject of farmers market produce.

"I don't care if they're pricey. It's fresher and it's better for me... It doesn't matter because I know when the man says the corn came out of the field today it did. And I'm gonna get tomatoes that are firm that are not gonna be mushy tomorrow. And when I buy green onions there, they're good green onions. And a cucumber is good there, and my experience is wonderful and I would prefer that all the time. Unfortunately we live in an area where it's not available all the time, but when it is, buy it."

**Interviews: OFMU and EBT**

None of the interviewees were aware the OFMU accepted EBT, although some made a point to say that they were not on Food Assistance and therefore had not heard. One person who did have an EBT card expressed concerns about going because of varied prices, personal health problems, uncertainty about hours, and fears about the market closing early but concluded that, "Overall, farmers' markets are pretty good food usually. And also too, a lot of the time they have baked goods that are made from scratch."

A number of suggestions were made about how to make more people aware that OFMU accepts EBT, all emphasizing location in advertisement. Several people mentioned advertisement at grocery stores, with one person suggesting that,

"Signs would be better for showing that you guys take food stamps. Maybe hanging up signs at the grocery stores. I think that might work. And then tell people about it. They can tell other people about it. But I really did not know that. I'm going to tell my aunt because she likes to go."

Another expanded on a list of prominent community bulletin boards saying,

"Well, advertisement here, advertisement on cable. Advertisement on... I mean I don't know what people afford, but a lot of people have cable or the cheaper satellite. Stuff like that gets it out there. But at Kroger's bulletin board. Wal-Mart. Meijer in Hamilton... Just the billboards at the food stores. Especially Wal-Mart. I look at that bulletin board... At the resource center down the street."

Finally, there were several suggestions involving the food pantry and other community services like this one below.

"Letting people know just in here. And the lines come in. Or community services. Go to the people that's where they are... And those little slips of paper that they put out to tell you when your next visit is? If they could expand that, on the bottom of that say 'Farmers' market now accepts EBT'."

Others also suggested putting a notice in the food bags and posting a sign emphasizing the good deals and good nutritive qualities of farmers market foods.
Survey of Ohio EBT at Farmers Markets

It was clear, from talking with a number of the farmers markets in Ohio that accept EBT, that community characteristics greatly affect the success of EBT programs. As such, farmers markets generally had low numbers of customers paying with EBT, but overall sales varied from less than $50 for the whole season to several hundred dollars the first week. One constant trend was that farmers market EBT purchases were higher at the start of the month than the end.

Marketing tended to be similar across the state, as most markets reported that they added information about payment options to existing advertising, posted flyers in a variety of locations, and collaborated with governmental and non-governmental organizations to create awareness about their status as an EBT vendor. One recurring theme was the crucial role played by local county offices (ex: Department of Job and Family Services) who issue EBT cards. Markets who were able to solicit the help of these offices, either by way of mailing or by being allowed to post advertisements, named this as integral to their advertising program while markets who were not able to establish a partnership named this as their top priority in future marketing.

As barriers experienced by markets were affected greatly by the city's history, demographics, and more, creative marketing techniques were often place-specific. However, incorporating a larger number of up and downstream stakeholders was a technique that is universally applicable. Some markets worked with local low-income activists, others worked with churches and university classes, and still more just asked as many locals for advice as possible. Other useful techniques employed by other markets included evaluating their advertising locations (ex: newspapers) to make sure they would actually reach low-income consumers, labeling the location of the EBT machine to reduce anxiety, and mailing 2-for-1 coupons to local EBT-users to encourage first market visits.

Limitations and Future Study

Evaluation activities were dictated by the regular market season, which runs from May to November, while the overall project time line ran from August to April. As such, the scale and scope of activities were determined not exclusively by importance but also by feasibility, given limited time. Additionally, this evaluation focused very locally, with primary contacts in the city of Oxford due to accessibility and realistic scale. Results thus do not reflect the reality of OFMU’s thirty mile radius of influence, but instead focus on the experiences of low-income people in Oxford proper.

Price Comparison

Prices for the EBT price comparison came just from one report by vendors toward the end of the regular market season and one recorded price from Kroger and Wal-Mart. Future research studying price fluctuations and variability at different times of the year would then provide a more accurate portrayal of price differences than simple, one-time averages. Furthermore, prices were simply compared among items that were available at all locations. A price comparison of items most often purchased with EBT would perhaps be more reflective of the extent to which price serves as a barrier toward this particular customer pool. For instance, the market basket was composed based off of average prices of items that were available at both OFMU and supermarkets. A future study comparing thrifty finds at OFMU and at supermarkets, regardless of whether these items were available at both locations, could further unpack this issue. It is also important to note that these prices were for comparable fresh items and cuts, so
the most affordable canned, frozen, dehydrated, and bulk packaged foods were not itemized in this study. If potential customers tend to purchase food in these forms, rather than fresh, price could still serve as a barrier.

**Interviews**

The number of interviews collected at the Oxford Community Choice Food Pantry was affected by timing as well. The final day selected for interviewing was the first day that clients were able to pick up Thanksgiving holiday food packages, making private interview space unavailable and clients’ waits much longer. Due to these issues with privacy and time, clients’ willingness to participate in interviews was likely affected. The interview population was also not randomized, due to the voluntary nature of interviews. As such, interviewees may have been volunteered out of interest, as they may have been more invested in the local food system than the average food pantry client. Future research testing trends discovered in interviews through a general survey would determine how much these interviews can be generalized. Finally, the quantitative measures on the interview tool were not pre-tested and proved imperfect. Despite this shortcoming, questions aimed to collect quantitative data still yielded valuable qualitative data.

**Survey of Ohio EBT at Farmers Markets**

Due to time constraints, both on the part of the investigator and on the part of other farmers markets, not all farmers markets in Ohio were a part of this study. Future study, especially including Athens, Ohio where a small, rural college town resides, could provide more complete information on Ohio farmers markets and food assistance. Also, farmers markets in Ohio are not currently engaged in active evaluation of their food assistance promotion campaigns, making it difficult to call recommendations based on this survey “best-practices”, as they are only shown to be effective or ineffective through anecdotal evidence. Beginning each intervention with the intention to track its effectiveness would help to create a best-practice knowledge base in farmers market EBT-promotion.

**Recommendations**

**Awareness**: increase awareness among low-income members of Oxford community about OFMU hours and payment options.

- **Strategy 1**: Per the recommendation of an interviewee, donate next eligible date cards to the Oxford Community Choice Food Pantry that include an advertisement for OFMU that clearly states hours, dates, and payment options.

- **Strategy 2**: Per the recommendation of the Oberlin Farmers Market and others, begin a flier campaign highlighting OFMU’s ability to accept EBT by posting fliers on bulletin boards in grocery stores, laundromats, the post office, churches, and local aid organizations.

- **Strategy 3**: Per the recommendation of other Ohio farmers markets accepting EBT, begin a partnership with Butler County Department of Job and Family Services (DJFS), either advertising through DFJS mailings or leaving informational fliers at the office.

**Internal accessibility**: increase knowledge among OFMU shoppers about how to use EBT at the farmers market.
• Strategy 1: Include information about payment options on the main OFMU sign.
• Strategy 2: Create a sign for display in the market to inform customers where they can swipe their EBT or credit card.

**Affordability:** educate low-income community members about the affordable, fresh food options at OFMU by addressing the perception that farmers markets are more expensive.

• Strategy 1: Print a market basket price comparison (based off of Appendix 4) flier for dispersal at the Family Resource Center that also displays hours, dates, and payment options.
• Strategy 2: Print a recipe and price comparison (based off of Appendix 5) for dispersal at the Oxford Community Choice Food Pantry that also displays hours, dates, and payment options.

**Sustainability:** grow the knowledge base on best-practices in farmers market EBT-promotion.

• Strategy 1: For each intervention ask (according to the principles of empowerment evaluation) about the need being addressed, goal, best-practices, way in which the intervention fits with other programs, capacities needed, person(s) who will carry out the intervention, way success will be measured, theory of how the intervention works, way it will incorporate continuous quality improvement, and the way the intervention will be sustained.
• Strategy 2: Make long term connections with Miami University by recruiting faculty to have classes work with OFMU to research future questions as they arise.
### Appendix 2 – Price Comparison

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Measure Unit</th>
<th>Kroger Organic Import</th>
<th>Kroger Import</th>
<th>Walmart Organic Import</th>
<th>Walmart Import</th>
<th>OFMU Organic Local</th>
<th>OFMU Local Conventional</th>
</tr>
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<tbody>
<tr>
<td>Apples</td>
<td>1 lb.</td>
<td>1.5</td>
<td>2</td>
<td>2.75</td>
<td>3</td>
<td>0.8</td>
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<tr>
<td>Blackberry</td>
<td>1 pint</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Grapes</td>
<td>1 lb.</td>
<td>2.5</td>
<td>2.75</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
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<tr>
<td>Melon</td>
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<td></td>
<td></td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Cantaloupe</td>
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<td>2.5</td>
<td></td>
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<tr>
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<td>1</td>
<td>1.4</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Raspberry</td>
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<td>2.5</td>
<td></td>
<td></td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Strawberry</td>
<td>1 pint</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
<td></td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Tomato</td>
<td>2</td>
<td>1.5</td>
<td>3</td>
<td></td>
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<td></td>
</tr>
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<td>Cherry</td>
<td>1 pint</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tomatoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>1 lb.</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
<td>2.3</td>
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<td></td>
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</tr>
<tr>
<td>Ground</td>
<td>1 lb.</td>
<td>2.2</td>
<td>2.8</td>
<td>4.95</td>
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<tr>
<td>Patties</td>
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<td></td>
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<tr>
<td>Loin</td>
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<td>8.7</td>
<td>14.5</td>
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<tr>
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<tr>
<td>Beef Steak</td>
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<td></td>
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</tr>
<tr>
<td>T-Bone</td>
<td>1 lb.</td>
<td>9</td>
<td>8.5</td>
<td>12</td>
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<tr>
<td>Pork</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Breast</td>
<td>1 lb.</td>
<td>4.65</td>
<td>3.45</td>
<td>8.95</td>
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<td></td>
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<tr>
<td>Giblets</td>
<td></td>
<td>1.75</td>
<td>1.6</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart, liver, &amp; gizzard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground</td>
<td>1 lb.</td>
<td>2.55</td>
<td>2.4</td>
<td>6.5</td>
<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Legs &amp; Thighs</td>
<td>1 lb.</td>
<td>1.7</td>
<td>1.4</td>
<td>3.45</td>
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<td></td>
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<tr>
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<tr>
<td>Wings</td>
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<tr>
<td>Eggs</td>
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<td>3.4</td>
<td>3.5</td>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Bacon</td>
<td>1 lb.</td>
<td>4.9</td>
<td>3.2</td>
<td>5.15</td>
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<tr>
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<tr>
<td>Chops</td>
<td>1 lb.</td>
<td>3</td>
<td>4.4</td>
<td>7.25</td>
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<tr>
<td>Pork Loin</td>
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</tr>
<tr>
<td>Boneless</td>
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<td>7.25</td>
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<tr>
<td>Pork Ribs</td>
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</tr>
<tr>
<td>Baby Back</td>
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<td>4.25</td>
<td>7</td>
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<td>Pork Ribs</td>
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</tr>
<tr>
<td>Spare</td>
<td>2</td>
<td>2.4</td>
<td>1.7</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sausage</td>
<td>1 lb.</td>
<td>4.4</td>
<td>2.9</td>
<td>4.96</td>
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<tr>
<td>Turkey</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ground</td>
<td>1 lb.</td>
<td>0.5</td>
<td>1.8</td>
<td>6.99</td>
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<tr>
<td>Onion</td>
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<td>1.9</td>
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<td>0.9</td>
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<tr>
<td>Turnip</td>
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<tr>
<td>Broccoli</td>
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<td>1.2</td>
<td>1.5</td>
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<tr>
<td>Vegetable</td>
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<td>1.82</td>
<td>2</td>
<td>2.82</td>
<td>2.28</td>
<td>3.5</td>
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<tr>
<td>Cabbage</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Corn</td>
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<td></td>
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<tr>
<td>Sweet</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cucumber</td>
<td>1</td>
<td>0.88</td>
<td>1.2</td>
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<td>0.7</td>
<td>0.85</td>
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<td>Eggplant</td>
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<td>1.6</td>
<td>1</td>
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<tr>
<td>Lettuce</td>
<td>1 head</td>
<td>2</td>
<td>1</td>
<td>2</td>
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<td></td>
</tr>
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<td>Pepper</td>
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<td>1.7</td>
<td>1.3</td>
<td>1.78</td>
<td>0.95</td>
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<td>Squash</td>
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<td></td>
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</tr>
<tr>
<td>Yellow</td>
<td>1</td>
<td>0.75</td>
<td>1.6</td>
<td></td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zucchini</td>
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<td>1.88</td>
<td>1.5</td>
<td></td>
<td>0.86</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Lines in green indicate items that are most affordable at OFMU while lines in yellow indicate items that fall between prices at Kroger and Wal-Mart.
Appendix 3 – Oxford Community Choice Food Pantry Interviews

Interview Questions

1. What matters most to you when you’re shopping for food?

2. On a scale from one to ten, (one the least important, ten the most important), how important are the following?
   a. How easy it is to get to the store.
   b. How flexible the store hours are.
   c. Interacting with others while shopping.
   d. Knowing who made (grew) your food.
   e. How locally food was grown.
   f. Food grown without pesticides, herbicides, and other chemicals.
   g. Price.
   h. Variety of products.

3. Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator? What percentage of the amount of food you get per week is fresh fruits and vegetables?

4. How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.) Frozen or pre-prepared meals?

5. Why do you shop for food where you do?

6. Have you ever been to a farmers’ market? Have you ever been to OFMU?
   a. If yes, tell me about your experience. (Was it easy to find? Easy to get to? Easy to make purchases at? Did you feel good about the price? Quality? Service? Variety?)
   b. If no, why not? What would make you more likely to go?

7. What (if anything) do you know about the Oxford Farmers’ Market Uptown? What have you heard about OFMU?
   a. Were you aware that OFMU accepted EBT?

8. Any other thoughts you would like to share? Suggestions for the OFMU EBT program?
Interview 1

Laura: What matters most to you when you’re shopping for food?

Interviewee: Freshness. Fresh vegetables.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: Senior citizen. I don't drive.

L: Would that be a 10 because it's most important?

I: Yeah.

L: How flexible the store hours are.

I: Just like a grocery store. I like fresh vegetables. If I can get fresh vegetables, I can live on vegetables.

L: How much does it matter to you what times the store's open?

I: Doesn't really matter.

L: Interacting with others while shopping.

I: Yeah. I talk. Lot of friends. Right now I'm on a special diet and there's so much food I can't have right now. You know. But.

L: So when you're at the grocery store is it very important or not very important that you're talking to people?

I: Very.

L: Knowing who made (grew) your food. You said you ate a lot of vegetables. Does it matter to you who grew your food?

I: Well, yes. No. I like fried foods. I like spicy foods, but I can't have those. So I do a lot of steaming and a lot of baking.

L: How locally food was grown.

I: I like to grow my own food.

L: Food grown without pesticides, herbicides, and other chemicals.

I: I don't care. You can wash it.
L: Price. Is the price of the food very important to you?
I: Yeah.
L: Variety of products.
I: Doesn't really matter.
L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?
I: Yeah.
L: What percentage of the amount of food you get per week is fresh fruits and vegetables?
I: What vegetables I can eat mostly I get them.
L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)
I: Quite often. Maybe five or six times a week.
L: Frozen or pre-prepared meals?
I: I really don't like frozen.
L: So other times do you go somewhere and have someone make it for you?
I: Well right now I'm on meals on wheels. At lunch time. But they're bringing me stuff that I can't eat now. So I gotta make to the doctor tomorrow and I don't know what, I don't know if they're going to change my diet or what, but.
L: Why do you shop for food where you do?
I: Well, I like to see what I'm getting.
L: Have you ever been to a farmers’ market?
I: Mhmm.
L: Have you ever been to OFMU?
I: Nah.
L: Which one have you been to?
I: Well we went way out on 27 one time. And got some tomatoes and green tomatoes and ripe tomatoes. I love to go to the farmers’ market.

L: What did you like the most about it?


L: What (if anything) do you know about the Oxford Farmers’ Market Uptown? What have you heard about OFMU?

I: I just heard. A lot of people have. Some of my neighbors go up there and he'll pick up green beans and stuff like that. He'll bring them home and I'll cook them and three or four different apartments and neighbors will all eat them.

L: Were you aware that OFMU accepted EBT?

I: No.

L: Any other thoughts you would like to share? Suggestions for the OFMU EBT program?

I: No.

**Interview 2**

Laura: What matters most to you when you’re shopping for food?

Interviewee: That I have enough food stamps.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: Ten

L: How flexible the store hours are.

I: Five

L: Interacting with others while shopping.

I: I'm not used to talking to other people when I shop, but it would be nice to have somebody to advise me. For instance, I picked up honeydew and I couldn't figure out are you supposed to skin it or not. And I couldn't find anybody, so the two honeydew got shriveled up looking so I threw them away. I need like "Okay this is a honeydew and it's good for fruit salad or it's good to bake or-"

L: Knowing who made (grew) your food.
I: That's a ten.

L: How locally food was grown.

I: A ten.

L: Food grown without pesticides, herbicides, and other chemicals.

I: I would prefer that they have the least pesticides, so no chemicals is a ten for me.

L: Price.

I: An eight.

L: Variety of products.

I: An eight.

L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I: I'm not satisfied because like with the honeydew. And I let some apples go bad. And I cleaned out the refrigerator today so I'm already...I'm not sure about those green bags. I'm not sure how they work.

L: The green bags?

I: Debbie Meyer. She's got these green plastic things like Tupperware and they last longer and you put certain ones in different bags. I don't know if they really work. If they were reasonable I would buy them. But being able to go to the local farmers' market now that I know they have access to the food stamps then if they are locally grown I won't have to worry because I will have a steady stream of good vegetables and fruits. And that's important because I'm now on a gluten-free diet which means I need more vegetables and fruits. And nothing out of a box or a plastic bag or with preservatives.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?

I: Not counting today, but I just walked to Kroger's on Saturday and I bought a chicken breast already made and I bought a couple fresh tomatoes. A couple tomatoes. I don't know if they were fresh. A bag of lettuce, mixed. A couple of the honeydews and grapes. So a lot of fruits and vegetables.

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)

I: Now it has to be all the time. Because I'm just into gluten-free. Kroger’s has just expanded and they have that area now. I did try once the gluten-free frozen waffles and those were made
out of rice. They were much better than any other frozen waffles which is good. I have a box of gluten-free pasta which is made out of rice and I'm going to fix that tonight with some spaghetti sauce. So you know, those are the kind of things that I can use. But I haven't really tried to get them. It's better because, you know, you make a chicken breast or make this spaghetti sauce. I'm just going to have to wing it for the rest.

L: Why do you shop for food where you do?

I: It's the closest and I avoid Wal-Mart like the plague. If Kroger’s or the farmers' market could carry underwear or blue jeans I wouldn't shop there.

L: Have you ever been to a farmers’ market?

I: Yes.

L: What was your experience like?

I: Oh it was fantastic. I love them.

L: Because of the selection or...

I: The selection, that it's grown locally. I know that it's the best food that I can get. The closer to home you can eat, the better. The healthier.

L: What (if anything) do you know about the Oxford Farmers’ Market Uptown? What have you heard about OFMU?

I: Very little. If it's open next Saturday, that will be my first experience. But I'll investigate. I have Oxford Press at home.

Interview 3

Laura: What matters most to you when you’re shopping for food?

Interviewee: Probably the quality and the price. And selection.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: For me probably a seven.

L: How flexible the store hours are.

I: A ten.

L: Interacting with others while shopping.
I: I don't know maybe a seven.

L: Knowing who made (grew) your food.

I: It would be nice to know if they advertised. Especially the fresh produce. Every once in a while a sticker on it saying. Really about an eight. If it’s available.

L: How locally food was grown.

I: I'd say a seven.

L: Food grown without pesticides, herbicides, and other chemicals.

I: Seven. Maybe a six.

L: Price.

I: Well we're on a budget, so about an eight.

L: Variety of products.

I: A nine.

L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I: The problem is the selection at the store is pretty…Wal-Mart’s: their produce is less than would be desired, so I tend not to. Kroger’s: depends on if it’s a good day or not I guess. You have to come back to get what you want. But with what I actually have at home, I would say probably an eight. I mean we eat pretty healthy.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?

I: I'd say probably about seventy percent.

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)

I: I'd say probably four days.

L: Frozen or pre-prepared meals?

I: Probably the other three. Depends on my health.

L: Why do you shop for food where you do?

I: Convenience.
L: Have you ever been to a farmers’ market?

I: Yeah.

L: What was your experience like?

I: Oh it was great. They've got this selection plus you're getting the interaction between typically it seems like they...I mean you're actually with farmers, or the supplier is there. And you can discuss the produce. I mean actually growing up we did corn. And so we would go to the farmers’ market early in the morning. Go pick the corn and sell it all day long.

L: So you're definitely familiar with farmers' markets?

I: Oh yeah.

L: Have you ever been to OFMU?

I: No actually I haven't.

L: What (if anything) do you know about the Oxford Farmers’ Market Uptown? What have you heard about OFMU?

I: I've heard it's pretty good. You know they have the good selection and the quality of the produce is pretty well. I mean I hear rumors both ways saying it's overpriced.

L: I've found that it kind of depends on what you're looking for.

I: And the supplier too because some people are just like it's the price no exception. And you want to come in and buy a half a bushel of something because they only bring a bushel with you and they're not really willing to, you know. They're not really willing to work with you. I guess it depends on if they're looking to make a profit or if they are trying to...do it more as a hobby. Or a contribution to a community or to promote healthy food.

L: Were you aware that OFMU accepted EBT?

I: No. And when I had heard about it it was just like, the prices really varied, and it was just like, well. And sometimes it's health problems early in the morning and I'm not moving. So not being familiar with the hours they're open. I always hear "Oh it's open early in the morning." Then it, also too, and I understand from doing it, closing down early. Sometimes you can't make it during those times or you get there from what I've heard you get there and there's not the selection left or they're packing up and leaving and that sort of thing. Overall, farmers' markets are pretty good food usually. And also too, a lot of the time they have baked goods that are made from scratch.

Interview 4
Laura: What matters most to you when you’re shopping for food?

Interviewee: How long it's going to last. How fresh it is.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: I have a vehicle. A lot of people don't. So everything up here is a five minute drive or a fifteen to twenty minute walk. So it's pretty easy to get to the store.

L: So on a one to ten scale what would it be?

I: Pretty much a seven.

L: How flexible the store hours are.

I: They're open all night long. That's a ten.

L: Interacting with others while shopping.

I: I discuss prices and things with people so that's like a seven.

L: Knowing who made (grew) your food.

I: That's...depends on the little tag on the fruit. Like a three to four there. Because you don't know who "Mayan" is unless you read real deep. Where that place is affects the crisp[ness] and shipping it to us

L: How locally food was grown.

I: Florida. That's about as close as it comes. That's like a three or four also.

L: Food grown without pesticides, herbicides, and other chemicals.

I: That's a zero. You don't know.

L: Price.

I: Price is a ten. It's extremely important. The lowest price for the freshest stuff.

L: Variety of products.

I: I'm kind of picky.

L: Do you usually go in and know exactly what you're looking for and...

I: I bargain hunt. So it's like a five. If it's not marked down and bargain priced, I can't get any.
L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I: If it's from Jungle Jim's. That's about a six.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?

I: It's about two thirds of it is fruits and vegetables.

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)

I: You have to have boxed foods.

L: Yeah, but something that's not a- 

I: Not an instant dinner? I don't like instant dinners. So I do it all the time.

L: Frozen or pre-prepared meals?

I: Not if I can help it.

L: Why do you shop for food where you do?

I: Larger choices, the variety. The price.

L: Have you ever been to a farmers’ market?

I: Yes.

L: What was your experience like?

I: I like the farmers’ market. And they have fresh fruits and vegetables, fresh nuts, they have home grown nuts still in the shell. They have fresh herbs straight from the gardens. They have potted herbs which you're able to purchase. Varieties some that you can't find anywhere because they were smart enough to plant large amounts. It's a wonderful place to walk around. It's reminiscent of the old movies where they're walking around in England or something. So it's really nice to see the canopies open and the people standing there with their stuff bickering the price.

L: Have you ever been to OFMU?

I: Yes.

L: Was you experience there any different than at other markets? I don't know if you've been to multiple farmers' markets, but did you have any impressions there that were different?
I: I've been to the flea market farmers' markets and they're really, really cheap. And they're sitting there at the end of the day. Their prices on box loads and I was like, "This box load?" Because they want to get rid of it and they don't want to take it home. So yeah, the one uptown is really, really nice and you know part of the farmers anyway and it's really pleasant.

L: Definitely smaller than those other ones though.

I: Definitely smaller. And you're not going to end up with them bickering a whole box load of cabbage because "You've got to buy the whole box load please."

L: Were you aware that OFMU accepted EBT?

I: No, not until today.

L: Any other thoughts you would like to share? Suggestions for the OFMU EBT program?

I: You're going to have to put out fliers in these food bags or these people won't know. Well I was in the food forums and things for a long while putting out the (?). You have to put the notice in the food bags.

L: Because that's like when people used to put fliers in paycheck stubs.

I: These things for the dinners, if you don't go down to the center anymore, which a lot of people don't unless they owe a bill, then this is the only way they're going to find out because they are going to come here for their food. Because this stretches the food about 25-30% because it's boxed and canned goods. If the boxed and canned goods is supplied here, then the meats can be purchased at a cut rate at Kroger or wherever. The vegetables can be bought wherever. If you go clean to Jungle Jim's, great. If you don't get that far, then at least Kroger and Wal-Mart. If you can get as far as the west side… the last bus has failed I know I campaigned too…Meijer's has a descent selection. Lots of mark downs lately. But the whole point of the pantry is to stretch the food because the food stamps aren't enough so if it stretches the food the right way then they've got the fresh fruits and vegetables and the extra meats put in with stuff from here to make huge, massive food dinners. And the thing that they're lacking is herbs and spices and the farmers' market availability like that with a lot of herbs. Lot of good herbs. If you teach these people to grow them little potted herbs-

L: And you actually use the food stamps to buy plants.

I: Yeah potted herbs.

L: I was really surprised to hear that.

I: People don't know that because the stores started dividing their things when they started doing it and I've done it for years. They started doing it when they found out they would have to sell you a pot of herbs for food stamps rather than have to get cash from you they divided them.
They said, “Oh that's in a different portion of the store now that's not run by our store.” It is, but in secret.

They're not going to tell you because they don't want you buying that five dollar basil plant that's going to give you lots and keep feeding you when they want you to come in and buy what they cut and got hanging. Which is going to wilt and die sooner. That basil's going to last you a lot longer so they changed a lot of stores. You can still get them at Kroger. You can still get them at Wal-Mart. You can even go out to the Lawn and Garden area. It is their part of the store and you can buy potted tomato plants with tomatoes on them. People don't know that. And this is the problem. That's another thing people don't know.

Back when I was 18, I had *Organic Gardening Magazine*. *OG* told you this. If you didn't read *OG* you didn't know this. And I walked straight into stores and flopped the seeds down and said, "My seeds are for vegetables and I'm buying them on food stamps." They said, "You can't do that." I said, "Pardon me, but I can." And I had to literally carry the article with me for several years before they caught on because they didn't believe me that you can purchase your vegetable seeds because you were going to eat that thing later. If you're planting turnips, you're going to eat those turnips as soon as they're fat enough; you're going to eat the greens as well. They didn't want to sell those seeds because they assumed it was something beyond food. No, it's a food. I mean you can eat nasturtiums but they won't allow you to buy those. See there's certain flowers you can eat and that hasn't caught on because they're afraid they'll be took advantage of and they'll sell them themselves. But people don't know this. They don't know.

**Interview 5**

Laura: What matters most to you when you’re shopping for food?

Interviewee: I try to looking for natural food. And fresh.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: Maybe eight.

L: How flexible the store hours are.

I: Ten. Because Oxford, that store Wal-Mart, is open 24 hours

L: Which is nice.

I: Oh yeah.

L: Interacting with others while shopping.

I: Sometimes not too often. You know because we are Latin everyone thinks that we not speak English.
L: Knowing who made (grew) your food.

I: I try to read the...

L: The sticker?

I: The sticker. Yeah. I try to read the sticker and I try to know where it come from or who make, what company's make.

L: How locally food was grown.

I: Yeah. That is important because it's more cheap when they stay inside the city.

L: Food grown without pesticides, herbicides, and other chemicals.

I: I think for me it's too bad to use pesticides or any chemicals.

L: Price.

I: The price when you want to buy fresh food the price is high because it's expensive, that. But it's good for you.

L: Variety of products.

I: We can find too many choices around here.

L: You think there are too many choices?

I: Yeah because you can go to the store or you can go to the farmer market in the park. I think for me I don't have any problem for getting that.

L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I: I tried. I tried to get the. I don't know what it is in English. I tried to get the right amount because just we are only my two sons and me just it's not too much but it's enough.

L: And you don't want the food to go bad?

I: Yeah.

L: So you feel like you have a good amount?

I: Yes. Yeah.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?
I: I think it's same. Vegetables and other foods. I try to put more vegetables in my diet.

L: And when you go to the store, your shopping cart, how much of it ends up being full with fresh food?

I: Fresh food? I tried to get the most. The most fresh food.

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)

I: Maybe two times a week. Not too often.

L: Do you usually do stuff that's pre-prepared so you just put it in the oven and it's ready?

I: I prepare. I try to prepare everything.

L: So you usually get all the stuff and put it together yourself?

I: Exactly.

L: Why do you shop for food where you do?

I: At Wal-Mart because it's more cheap than other stores. I like trying the Kroger has so many fruits and vegetables because they have them very fresh. But it's expensive.

L: So price and freshness?

I: Yeah. For the price.

L: Have you ever been to a farmers’ market?

I: Yes.

L: Have you ever been to OFMU?

I: In the town, yes.

L: What did you think of it?

I: I like it, but I like it when I have money. Because it's expensive. I remember one time I went over there and I saw a lady they sell lamb meat. And said okay I like this chop lamb, lamb chop. And I said, "Give me two or three pounds and I'll try another two pounds of the ribs." And she said, "It's $48." (laughs) "Okay, okay that's fine." And I take and I go home and I prepare. That was so delicious that chopped lamb. And I prepare and my son said, "Mom this is so good." "Yes, eat it everything. Everything. Because it's $48."

L: It's a good thing they liked it, otherwise you would be like, “You are going to eat that.”
I: Yes, eat it eat it. Yeah, that's so funny. I remember.

L: Were you aware that OFMU accepted EBT?

I: No. Oh really. But I don't, I don't have that problem.

L: Any other thoughts you would like to share? Suggestions for the OFMU EBT program?

I: I don't know because I'm not, we don't, I don't have any friends or family here. Just we are me and my two sons and we not live in the town, we live in the Somerville. Not the Somerville, but for me it's more near to Oxford. I don't know but the Somerville I live. That's where we live. I don't know. But I never go on the program. Food stamp program. I don't know how it's working. I don't know.

L: I know it's really complicated to get on it.

I: I know. But I'm so glad I don't need it. Not yet. Not yet. Sometimes when I go to the family department in Hamilton, they tell me, "You can get the food stamps." No, I don't want. I don't want. "But why?" "I don't want. I have to work. I know that is not too much warning because I work for myself. Okay I don't have too much work right now, but I don't need it. I don't like it.

**Interview 6**

Laura: What matters most to you when you’re shopping for food?

Interviewee: You mean first?

L: Yes.

I: The nutritional part of it, but the price too. It's kind of a toss-up there. But I read labels and stuff. Not too much salt. Sugar and crude oil and that stuff.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: Ten. You mean ten's easiest?

L: How important it is, so if a-

I: Oh sorry. It's very important. I give that at least three.

L: How flexible the store hours are.

I: Fine. They meet with my, I go to Wal-Mart or Kroger’s.

L: So is it really important to you that a store's open for a lot of hours?
I: Yes.

L: Interacting with others while shopping.

I: Do I do that?

L: Yeah.

I: Oh yeah I have, but to sit and talk no. If somebody asks me a direction or something or say hello. That type of thing. But no I try to keep my mind on what I'm doing.

L: Knowing who made (grew) your food.

I: Well, it's important. You mean the company?

L: Yeah. Or even knowing if it was farmed, who the farmer might have been. Just where your food is coming from.

I: You mean...okay. Well yeah it's important because obviously you don't really know. I know I, for example, just for example I'm not Amish. There's a gentleman that sells his tomatoes. They're so good. And he said Amish grown and I'm going, "Yeah, that's nice to know." It was good. So that type of thing does matter if you find out.

L: How locally food was grown. So does it matter a lot to you if your food was grown in Ohio or the United States?

I: No.

L: Food grown without pesticides, herbicides, and other chemicals.

I: You know I'm not up on that much. I think it's not. I make sure I wash everything real good, but to me it seems like they need some kind of pesticide. But those that grow things organically more than not I don't know what they do to keep pests away. So I really I don't know I just make sure I wash my food more than once. From the ground I wash it.

L: Price.

I: Nine. Because sometimes, you know it doesn't matter. Depends what it is. You know. There's some-. I'm a real good person about the generic, but certain types of things that you just know, “Nope, I'm getting that.” It's a nine. It's not always.

L: Variety of products.

I: Oh yeah. I shop at big stores where they have big variety. I like that.
L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I: Am I happy? Yes.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?

I: Fruits and vegetables together? About half. Because we like steaks and stuff, but we don't eat a lot of processed food, but we do eat some meat.

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)

I: That was a long time ago I did. Oh I'm bad. About half the time. I do know how.

L: So most of the time do you do stuff that's like frozen and boxed and that kind of stuff?

I: Well, like with Thanksgiving, I buy stovetop stuffing but then I add to it.

L: Okay, so you kind of do a combination.

I: I add my own celery and onion and whatever else.

L: My family does the same thing when we do pasta. We always add stuff to the sauce.

I: Yes.

L: Why do you shop for food where you do?

I: The food has satisfied us. The price is good. And it's conveniently close.

L: Have you ever been to a farmers’ market?

I: Last summer I went to where Talawanda is. I haven't gone this year at all.

L: What was your experience like when you went?

I: The reason I don't go all the time is because I don't walk a lot any more and standing. And if it's busy I just can't. Like I'll run and get some tomatoes and I'm gone. Because it's too many people. But as far as the trip itself, it's enjoyable, people make things. It's neat to go see. I think it's my problem because my knee. My husband says I have the kneesles. I have a bad knee, so with kneesles, you need to hang out. You have to make a joke though. No cartilage left in my knee but barely. It's from when I was young in sports. I was in all that stuff. And arthritis has set in and they took a lot of bad cartilage out and hence I walk with a cane even though I'm supposed to be better. I'm not. Well I am and I'm not. I still have fallen over the years since '01, but not as much. My cane goes with me when I do too much walking. This isn't too much, but
especially going up and down steps. I can't go down my basement steps because it hurts my knee. But I have a 19 year old son that does my laundry. So. He's a good kid.

L: Not everyone can get their 19 year old sons to do laundry at all.

I: It took a lot of work. I worked on him at 10 years old. He was doing laundry at 10 years old. I said you need to know this because some day you're gonna have your own apartment which he hasn't done that yet.

L: At least now he knows how to do his own laundry.

I: He knows how to do his laundry and cook. He's not a great cook, but he could live. He can get by. He knows how to shop. In '01. When was '01? Eight years ago he was 11 and he would go in Dollar General and get a bunch of stuff for me. Or Wal-Mart. Whatever. Kroger's. By himself. I'd go in there

L: I'd be terrified to do that at 11.

I: Well he'd just I'd give him a list and I'd make sure I went to the door incase they said something about a kid, but he was always tall and they just thought he was taller.

L: What (if anything) do you know about the Oxford Farmers’ Market Uptown? What have you heard about OFMU?

I: I noticed it. I noticed that. Is that replacing Talawanda's?

L: No they're both going at the same time.

I: Oh okay.

L: Were you aware that OFMU accepted EBT?

I: I don't get those food stamps, I don't get them.

L: But have you heard anybody talking about that for any reason?

I: No. I make just a little bit too much on social security don't you know I'm rich. I don't care, include my son's income.

L: You're rollin' in it.

I: Pay the bills then I'm rolling in what? (laughs) Well you gotta laugh about it, my goodness. But we're okay. We're blessed, we're okay.

L: Any other thoughts you would like to share? Suggestions for the OFMU EBT program?
I: Well, advertisement here, advertisement on cable. Advertisement on...I mean I don't know what people afford, but a lot of people have cable or the cheaper satellite. Stuff like that gets it out there. But at Kroger's bulletin board. Wal-Mart. Meijer in Hamilton. You're just talking about Oxford now?

L: Yeah but there are probably some people from Hamilton that might be interested.

I: Just the billboards at the food stores. Especially Wal-Mart. I look at that bulletin board.

L: That community bulletin board?

I: Yeah. At the resource center down the street.

Interview 7&8

Laura: What matters most to you when you’re shopping for food?

Interviewee 1: Quality and price obviously.

Interviewee 2: What matters to me the most is what my family likes.

L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I 2: About an eight.

I 1: Five.

I 2: It's easy for you to go to the store you walk out side and-

I 1: I know. Is that what you mean? How easy is it for me?

L: Yeah, how important is it to you that the store is easy to get to.

I 1: Five. I don't care if I have to drive further to get something.

I 2: Eight.

L: How flexible the store hours are.

I 2: Ten.

I 1: Three.

L: Interacting with others while shopping.

I 1: You mean how important is that? Like other customers? I could care less. It's a one.
I 2: Zero on me.

L: Knowing who made (grew) your food.

I 2: Two. Because if the price is right you're going to buy it regardless and you know it.

I 1: No I'm not. Eight.

L: How locally food was grown. So does it matter if it was made in Ohio or made in the States?

I 1: Yes. It does. It's important. So you want a number? Eight.

I 2: Four.

L: Food grown without pesticides, herbicides, and other chemicals.

I 1: Ten.

I 2: Four. I'm gonna take it home and wash it anyhow.

L: Price.

I 1: The price is very important. It seems to disqualify other things that I said, but the price is an eight also. But sometimes you have to make a choice of whether something is more healthy for you or the price. I mean sometimes you will give in on one.

I 2: I'd go with eight.

L: Variety of products.

I 1: That's an eight.

I 2: I'd do an eight on that.

L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I 1: No.

L: You would like to have more in general or better quality?

I 1: I would like to get better quality. If I can get you a for-instance, I bought oranges last week. They were terrible. I tried to get them today at a different place. They were sickening looking and I would think that Florida advertises Florida oranges.
I 2: See that's okay you're expressing and my expression is that I'd like to have more fresh fruits and vegetables but I cannot afford them.

I 1: Well that is true.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?

I 2: How big is the baby seat?

L: Baby seat-sized. Okay I feel good about that.

I 1: Fruits and vegetables? Are you talking about fresh vegetables or even -

I 2: I'm including the 10 pound bag of potatoes.

I 1: Well that's fresh vegetables. Better than canned potatoes.

I 2: Fits in the baby seat right along with the onions.

I 1: So are you speaking not canned vegetables?

L: Yeah, the stuff that's in the produce section.

I 2: Those are about 8 cubic feet carts.

I 1: Don't go there. I can't figure it that way.

I 2: I use maybe one cubic foot.

I 1: Figure lettuce, cabbage, onions, radishes if they're good, mushrooms, celery, sometimes bagged salad, potatoes, tomatoes, oranges, sometimes apples.

L: So you're going bigger than the baby seat?

I 1: Oh yeah.

I 2: She's up to two, two and a half cubic feet.

I 1: I'm a lot different than her in that aspect.

L: So a third to a half of the cart?

I 1: I would say about a third probably

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)
I 2: How many times do I cook from frozen meals?

I 1: Never.

L: I saw that look on your face as soon as I started to ask that question. So you always cook from scratch?

I 2: Yes I don't eat frozen things. It's too expensive and my family doesn't like it.

I 1: Now sometimes we eat sandwiches. But it's fresh ham and stuff like that. Is that considered from scratch?

L: We'll say it's from scratch.

I 1: Then I would say less than once a week we eat not from scratch.

L: Why do you shop for food where you do?

I 1: Well I shop at many different places. I go to different places to get my food.

L: For different things?

I 1: Yes. So I shop for quality. Some places I shop for price. And obviously the healthfulness of the food. You know if I want something that's healthy for me I'll go to one place so we usually go to three or four stores.

L: Okay so different places for different things.

I 1: Yes.

L: What about you?

I 2: I go for the price. And the convenience.

L: Have you ever been to a farmers’ market?

I 1: Yes.

L: What was your experience like?

I 1: It's good.

I 2: I personally think that their fresh produce is a little bit on the high side and what I bought there is when I've had a couple extra dollars in my pocket. I buy a loaf of let's say zucchini bread for instance which I make myself but sometimes it's a treat.
I 1: Now farmers' market I'm thinking of a market where there are vegetables and fruits that they've grown.

I 2: They're a little pricey.

I 1: I don't care if they're pricey. It's fresher and it's better for me.

I 2: Have you ever been to this one up by the Talawanda School?

I 1: No.

I 2: Or the one right up here on Church Street between Church and High? Well then you don't know what you're talking about.

L: Have you been to both?

I 2: Yes.

I 1: As I say I'm speaking of places where people sell things. Fruits and vegetables they've grown.

I 2: You get more of that at the Talawanda School than we do up here in the square.

I 1: But they may be a little higher. It doesn't matter because I know when the man says the corn came out of the field today it did. And I'm gonna get tomatoes that are firm that are not gonna be mushy tomorrow. And when I buy green onions there, they're good green onions. And a cucumber is good there, and my experience is wonderful and I would prefer that all the time. Unfortunately we live in an area where it's not available all the time, but when it is, buy it. And there are some better than others, but you get to know that.

I 2: Talawanda has more fresh fruits and vegetables, more variety. This up here is getting to be too much of the arts and crafts. And jarred jelly for $47.82 I think.

I 1: Well a jar of jelly is not locally grown either. That's shipped in from -

I 2: No you make it. When they say it's homemade in somebody's kitchen. I made my own jelly out of grape juice.

I 1: Somebody's kitchen is generally the Amish that's shipped in and costs an arm and a leg because it's -

I 2: My Aunt Pearl had a stand up here at this one uptown and I bought one of her apple pies. Which I would never buy another one of her apple pies.

I 1: It's you aunt. Why didn't she just give it to you? What the hell kind of family is that?

I 2: She didn't peel the apples.
I 1: Oh God, that's disgusting.
I 2: I can't believe-
I 1: Okay, enough said. Zip it.
L: Were you aware that OFMU accepted EBT?
I 2: What is EBT?
I 1: Food stamps.
I 2: Well not being on food stamps, I don't know that.
L: So you haven't heard anything?
I 2: No.
I 1: I hadn't heard because I don't use food stamps either.
L: Any other thoughts you would like to share? Suggestions for the OFMU EBT program?
I 1: For the most part, and I hate to be negative about people, but for the most part the only way to get the type of person around us who is on food stamps is to tell them you're practically giving it away. Because if it isn't boxed that they can throw it at their kids. They don’t care if it’s fresh or not. You know, it’s sad to say, but that’s the way our country is.
L: So making it easy to-
I 2: Letting people know just in here. And the lines come in. Or community services. Go to the people that's where they are.
I 1: But I think for the most part they want instant food. They're the ones that make the garbage meals every week. That sounds so degrading. I'm generalizing on people.
I 2: It's not a generalization. It's the people in the neighborhood where we live are not into -
I 1: Healthy foods. It's more -
I 2: They want a convenience so it doesn't disrupt their television.
I 1: Or their drug use or their -
I 2: Something that the kids can do themselves.
I 1: Yeah, Raman noodles are a real favorite.
I 2: All the kids can fix those.

I 1: I mean I like them with a sandwich sometimes, but it's like -. So it's a very hard question. Unfortunately I feel that that's what they should get. And it's a crying shame. Again, I agree with you about if possibly a sign were posted in a place like this and somebody would refer to it and say, “Hey, there’s good deals down there and it’s really healthy for you.”

I 2: And those little slips of paper that they put out to tell you when your next visit is? If they could expand that, on the bottom of that say "Farmers' market now accepts EBT."

I 1: Yeah, “Please visit the farmers' market.” And if kids would learn from that maybe the next generation will eat better. More healthily. Because it's horrible now. I didn't grow up like that, she didn't grow up like that so it's different. Whether you grew up like that, I don’t know, you’re the next generation down again. I have a niece, she’s a junior at Morehead. She grew up with my brother cooking. Her mom is diseased and my brother cooks so she grew up eating normal things, and she knows the value of broccoli and lettuce. But nowadays, these kids, they-

L: Yeah it's so hard if you don't even know where to start.

I 1: So I think encouraging people and maybe trying to educate them a little bit. I mean they won't listen for very long. Gotta get back to the TV.

I 2: Are you up here very often?

L: I was here Monday and Thursday last week and I will be this week too, but not very much.

I 2: I was going to say, you're going to see an increase of people in the last one third of the month. The reason for that is that people sold all their food stamps and then they're running out of food.

I 1: And it's the whole EBT system is -

I 2: Abused. Terribly.

I 1: Yeah.

I 2: Well, let's go.

**Interview 9**

Laura: What matters most to you when you’re shopping for food?

Interviewee: Well I like my fruits and vegetables, so I make sure I get fruits and vegetables. Plus I'm pregnant so I need a lot more fruits and vegetables than my boyfriend. He don't eat them. But I make sure I get them.
L: On a scale from one to ten, (one the least important, ten the most important), how important are the following? How easy it is to get to the store.

I: Ten.

L: How flexible the store hours are.

I: That's not really important so I'd give it a one.

L: Interacting with others while shopping.

I: I do like to talk to other people. Because I like to meet new people, so I'd give that a seven.

L: Knowing who made (grew) your food.

I: It really don't matter to me, so one.

L: How locally food was grown.

I: I guess that would be like four or five because I really like to get things that are like oranges, I like to get them from Florida. So I guess I'd give that a four or five.

L: Food grown without pesticides, herbicides, and other chemicals.

I: Well actually, I just went to the store the other day and I picked up organic bananas and I didn't know they were organic but I tried one and they're so much better.

L: Did you buy them on accident and you were like, "Ooh!"

I: Well the lady came up to me and told me that they were organic bananas and I didn't know when I picked them up but when I got home and I tried them they were so much better.

L: Price.

I: Yeah, that matters a lot, so a ten.

L: Variety of products.

I: Ten.

L: Are you satisfied with the quality and amount of produce that you tend to have available in your refrigerator?

I: Right now, no because I ate them all. I want to buy more because actually we just went to the store and got a bunch of fruit the other day, but it's all gone now.

L: What percentage of the amount of food you get per week is fresh fruits and vegetables?
I: Quite a bit. Because I love my fruits and vegetables. I always have. I'm a big eater on vegetables and fruits.

L: How many times per week do you cook from scratch? (With non-boxed and non-frozen ingredients.)

I: Well right now I don't really cook that much because I live with my boyfriend's mom, but when I do cook I like to cook. Because I'm from the country, and that's how I choose everything.

L: So what kind of stuff does she usually cook?

I: She usually cooks like -. She always makes sure I have a vegetable. She usually cooks a meat and two or three vegetables.

L: Why do you shop for food where you do?

I: Because it's cheaper than the other place. I like to bargain shop. She [pointing to her boyfriend's cousin] does not.

L: Have you ever been to a farmers’ market?

I: Yes.

L: Have you ever been to OFMU?

I: I'm not sure if I have or not. My grandma -

L: The one up at the park?

I: I don't think so. My grandma, she likes to go to them and I always take her to the markets. But I've been to Brown's in Ross and we went to a couple when we were in Kentucky.

L: What was your experience like?

I: I liked it. I think it's pretty neat. I do anyway. Because when I like all my vegetables and I like looking at them: all the colors there and everything.

L: What (if anything) do you know about the Oxford Farmers’ Market Uptown? What have you heard about OFMU?

I: Yeah my aunt she was over there. She was talking about it the other day.

L: Were you aware that OFMU accepted EBT?

I: No.
L: Any other thoughts you would like to share? Suggestions for the OFMU EBT program?

I: Do you guys have signs everywhere?

L: Not as many as we could. So you think signs?

I: Signs would be better for showing that you guys take food stamps. Maybe hanging up signs at the grocery stores. I think that might work. And then tell people about it. They can tell other people about it. But I really did not know that. I'm going to tell my aunt because she likes to go.
Appendix 4 – Market Basket

According to the USDA's 2006 Thrifty Food Plan for one male and one female aged 19-50, as well as one 6-8 year old and one 9-11 year old, these weights of foods should be purchased weekly in these categories.

9. Potatoes: 5.89 lbs. This basket includes 5 lbs. potatoes.
10. Other vegetables: 9.99 lbs. This basket includes 10 lbs. other vegetables.
11. Whole fruits: 18.58 lbs. This basket includes 17 lbs. whole fruits.
12. Eggs: .87 lbs. This basket includes 1.5 lbs. eggs.

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<th>Average Supermarket</th>
<th>Average OFMU</th>
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<tr>
<td>5 lb. potatoes</td>
<td>$3.75</td>
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<tr>
<td>5 bell peppers (2.5 lb)</td>
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<td>12 ears corn (5.5 lb)</td>
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<td>2 zucchini (0.5 lb)</td>
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<td>1.5 lb. green beans</td>
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<td>2 lb. pears</td>
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<td>2 lb. grapes</td>
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<td>12 free range eggs (1.5 lb)</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$55.61</strong></td>
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Appendix 5 - The Oxford Farmers Market Uptown Farm Fresh Recipe: Chicken Ratatouille

Serving Size: 1 1/2 cups
Yield: 4 servings

**Ingredients:**
- 1 Tablespoon vegetable oil
- 1 lb. Boneless, skinless chicken breast, cut into 1-inch pieces
- 2 7 inches long zucchini, unpeeled and thinly sliced
- 1 small eggplant, peeled and cut into 1-inch cubes
- 1 medium onion, thinly sliced
- 1 medium green pepper, cut into 1-inch pieces
- 1 lb. whole tomatoes (3-4), cut up
- 1 garlic clove, minced
- 1 1/2 teaspoon dried basil, crushed
- 1 Tablespoon fresh parsley, minced
- black pepper, to taste

**Instructions:**
1. Heat oil in large non-stick skillet. Add chicken and saute about 3 minutes, or until lightly browned.
2. Add zucchini, eggplant, onion, and green pepper. Cook about 15 minutes, stirring occasionally.
3. Add tomatoes, garlic, basil, parsley, and pepper; stir and continue cooking about 5 minutes, or until chicken is tender.

**More Farm Fresh Ideas:**
Add mushrooms, summer squash, or other seasonal vegetables to step 2. Buy and grow your own herbs with EBT at the Oxford Farmers Market Uptown. Serve with corn, mashed potatoes, bread, pasta, or rice.

**Price Comparison:**

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<th>Average Oxford Farmers Market Uptown Price</th>
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<tbody>
<tr>
<td>Chicken</td>
<td>$4.05</td>
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<td>Zucchini</td>
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Source: Adapted from: A Healthier You, Department of Health and Human Services