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Planning, implementation, and formative evaluation of a food literacy program

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Graduate Program in Health and Rehabilitation Sciences
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy
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THE PLANNING, IMPLEMENTATION, AND FORMATIVE EVALUATION OF A
COMMUNITY-BASED FOOD LITERACY PROGRAM FOR YOUTH

(Spine title: The planning, implementation, and formative evaluation of a
community-based food literacy program for youth)

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by

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Graduate Program in
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A thesis submitted in partial fulfillment
of the requirements for the degree of
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community-based food literacy program for youth**

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of the requirements for the degree of
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Abstract

The overall purpose of this dissertation was to examine the planning, implementation, and formative evaluation of a community-based food literacy program for youth. Article 1 provided a summary of the community-based cooking program for at-risk youth. Objectives included the provision of applied food literacy and cooking skills education augmented with fieldtrips to local farms. Eight at-risk youth (five girls and three boys, mean age = 14.6) completed the intervention. Post intervention, five of eight participants completed in-depth interviews about their experiences.

Article 2 was a formative evaluation of the cooking program focused on gaining an understanding of participants' (i.e., at-risk youth, community partners, and parents/guardians) experiences ($n=25$). While Article 2 did not lend itself to a quantitative analysis, it was important to understand the program's impact on participants' food literacy and self-efficacy. A simple, self-reported tool (pre-post) to assess food literacy and self-efficacy among at-risk youth participants was implemented. Findings identified that the intervention provided a unique, hands-on learning opportunity for participants to gain essential food literacy and cooking skills which enhanced their self-reported confidence and self-efficacy. Recommendations included expanding this program and offering it in a centrally located location.

The purpose of Article 3 was to qualitatively assess, through Photovoice methodology, the barriers and facilitators at-risk youth participants experienced to applying cooking skills in environments external to the intervention. Four major themes emerged as facilitators: aptitude; food literacy; local and fresh; and connectedness. Youth identified access to unhealthy foods as the only barrier. Findings indicated that a

community-based cooking program for at-risk youth provided an opportunity to apply basic cooking techniques to ensure healthy, economical, home-made meals for youth while building confidence and self-efficacy.

The intervention was a unique initiative that might provide a useful template to enhance existing food literacy programs or create similarly structured programs for relevant vulnerable populations. There is need for applied food literacy programming and research to reverse the erosion of cooking skills in Canadian society. An evaluated intervention can assist in providing evidence in support of the provision of food literacy for diverse participants.

Keywords: Community cooking program, food literacy, at-risk youth, formative evaluation, Photovoice

Co-Authorship

The material presented in this dissertation is my original work. I would, however, like to acknowledge the important contributions and collaborations of Dr. Jennifer D. Irwin. As my advisor, Jen has provided me with ongoing direction, mentorship, encouragement, and insight for all aspects of the studies included in this dissertation. Her assistance in the research is most appreciated. I would also like to thank Dr. Danielle Battram for her assistance as the assistant moderator for Study 3.

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The Planning, Implementation, and Formative Evaluation of a Community-Based Food

Literacy Program for Youth

CHAPTER I

Purpose and Introduction

The overall purpose of this dissertation was to examine the planning, implementation, and formative evaluation of a food literacy and cooking skills program grounded in the Generalized Model for Program Planning (GMPP; McKenzie, Neiger, & Thackeray, 2009), Participatory Action Research (PAR; Kidd & Kral, 2005), and self-efficacy (Bandura, 1994). To fulfill this purpose, three distinct yet related articles were written. First, the multi-step process of developing an 18-month community-based cooking program (*Cook It Up!*) for at-risk youth was described (Article 1); Article 1 provided the foundation for the other articles in this dissertation. Article 2 outlined the formative evaluation of *Cook It Up!* which qualitatively assessed participants' (i.e., youths, community partners, and parents/guardians) experiences with *Cook It Up!*. Also, we wanted to gain some idea of the program's impact on youth participants' food literacy and self-efficacy, and therefore implemented a simple, quantitative self-reported tool (pre-post) to assess each. The primary purpose of Article 3 was to qualitatively assess, through Photovoice (PV) methodology, the barriers and facilitators at-risk youth participants experienced with respect to applying cooking skills in environments external to the *Cook It Up!* program. Article 3 demonstrated how the community-based cooking program for at-risk youth might be effective in engaging many youth to learn about food literacy and how these skills can be applied in everyday life. Additionally, this article

may provide information to help key educational stakeholders and community members to understand, from the perspective of the youth participants, why it is essential to create opportunities to teach fundamental life skills, such as cooking and food literacy, which serve to help keep youth healthy now and into the future.

The current dissertation was written using the integrated-article format, in which each chapter represents a separate manuscript focusing on the planning, implementation, and formative evaluation of a food literacy and cooking skills program, using the constructs of the GMPP (Figure 1) (McKenzie et al., 2009) and informed by PAR (Kidd & Kral, 2005) and self-efficacy (Bandura, 1994). As a result, some of the information presented in this dissertation will be repeated in subsequent chapters.

This introductory chapter includes a discussion about nutrition and health, particularly as it pertains to at-risk youth; the importance of food literacy and cooking skills for this vulnerable population; what is known about efficacious cooking program components for youth; how cooking skills can contribute to increases in self-confidence and self-efficacy; and the utilization of Photovoice (PV) in health promotion programs. Then, the GMPP and the “Three Fs” of Program Planning will be introduced with specific focus on how these principles were applied within the planning, implementation, and formative evaluation of *Cook It Up!*. A brief overview of PAR and self-efficacy are also provided within the context of creating a theoretically-informed approach to the overall delivery of *Cook It Up!*. This introductory chapter is intended to provide a fairly comprehensive description of the background literature that formed the basis for this research program, and the application of said literature to the program itself is presented with more detail in the subsequent chapters within the dissertation.

Background: Literature Overview

The reality is that we are in the midst of one of the worst food-related epidemics that this country has seen. And I can assure you it's not through lack of food this time, but because we're consuming far too much of the wrong stuff. According to the Institute of Food Technologists, Americans spent more money on fast food in 2007 than they did on education. We're not talking about gourmet French cheeses and expensive cuts of meat here...we're talking about French fries, pizzas, burgers, and other food that is absolute garbage...The state of our health and our cooking is a subject that's been close to my heart for many years now. I live and breathe it, it bothers me, and I think about how to do my bit every day, so this is just a small rant...Anyone can eat good food on any budget as long as they know how to cook (Oliver, 2009, p. 14).

The link among healthy eating, cooking skills, and health seems to be an obvious one; however, the erosion of cooking skills disconnects the opportunity to ensure healthy outcomes for individuals (Larson, Perry, Story, & Neumark-Sztainer, 2006a). As popular food revolutionist Jamie Oliver stated in 2009, the ability to cook facilitates one's ability to enjoy healthy foods while ensuring food choices and behaviours are conducive to improved health. The following section provides an overview of the literature relevant to food literacy and cooking skills and their impact on at-risk youth. For the purposes of this dissertation, youth are considered to be people between the ages of 13-18 years old.

Nutrition, health and obesity among at-risk youth. Long-term advantages of healthy eating relate to reduced risk for a variety of chronic diseases including certain cancers, heart disease, stroke, hypertension, osteoporosis, obesity, and diabetes

(O'Loughlin & Tarasuk, 2003; Taylor, Evers, & McKenna, 2005; Veugelers, Fitzgerald, & Johnson, 2005). Each year in Canada, two-thirds of deaths are from chronic diseases that have at least some correlation to modifiable behaviours (e.g., dietary intake and physical activity) (The Secretariat for the Intersectoral Healthy Living Network, 2005). In addition to the various chronic illnesses associated with poor diet and physical inactivity, these behaviours have also impacted the well-documented rise in child and youth obesity in Canada, where more than 26% of children and youth aged 2 to 17 years are considered overweight and 8% are obese (Tjepkema & Shields, 2004).

The prevalence of overweight and obesity is disproportionately higher among minority and lower income youth (Freedman, Dietz, Srinivasan, & Berenson, 1999; Ogden, Carroll, & Flegal, 2008, Oliver & Haye, 2008). As Villarruel and Birch (2010) underscored, obesity, which has been labeled a chronic condition recently, demands improved health promotion programming focused on physical activity and healthy eating targeted specifically at at-risk youth to effectively reduce health disparities among this group. Although both physical activity and dietary intake need to be addressed, it is the dietary intake that will be the focus of improved efforts to enhance healthy eating opportunities among all youth groups are necessary because research shows that typical adolescents' diets consist of low fruit and vegetable consumption and high intakes of dietary fat, saturated fat, sweetened beverages, and fast foods (Nielsen & Popkin, 2004; Troiano, Briefel, Carroll, & Bialostosky, 2000). In the United States, most youth do not meet the recommended dietary guidelines for a healthy lifestyle (U.S. Department of Health and Human Services, 2000) and racial and economic disparities in this population are evident (Neumark-Sztainer, Story, Hannan, & Croll, 2002). Similarly in Canada,

childhood obesity negatively affects growth and development while contributing to physical and mental health problems (Basrur, 2004). In a 1998 report on the health of Canadian youth, researchers found that 21 to 28% of youth in grades six, eight, and 10 ate candy or chocolate bars every day, and approximately 22% of boys and 15% of girls in grade six ate potato chips daily (Public Health Agency of Canada, 2010). The frequency of consumption of unhealthy foods by youth underscores the need for enhancing food literacy programming for this unique target group.

At-risk youth. “At-risk youth” are those considered vulnerable due to characteristics such as having a racial background; negative influences from family, environment or peers; social factors that restrict healthy mental and social growth; limited financial resources; difficulty achieving optimal education; and behavioural issues. This unique group is a priority population requiring attention in terms of health promotion programming and service delivery (Dobizl, 2002; Mohajer & Earnest, 2010; Moore, 2006; Sussman et al., 2010). Adolescents (aged 13-18 years) are a very diverse group that is not homogeneous due to their varying social, economic, and cultural contexts (Wechsler, 2010). At-risk youth may be marginalized for a plethora of reasons including but not limited to homelessness, unemployment, First Nations heritage, addictions, adolescent parenthood, unstable home life, and economic instability (Mohajer & Earnest, 2010). Additionally, this vulnerable population might benefit most from health promotion programming; however, they tend to have less access to health promotion and health education programs, and health services (Mohajer & Earnest, 2010). For health promotion programs targeting at-risk youth to be useful, they must meet the unique needs of this population while also enhancing the youth’s social, economic, education, or

family environment – some of their social determinants of health (Mohajer & Earnest, 2010). As is discussed in-depth in the next chapter of this dissertation, within the *Cook It Up!* program, program planners targeted at-risk youth who possessed characteristics identifying them as more vulnerable, including difficult family environments, depressed economic situations, behavioural issues, education challenges, and/or social isolation.

Defining food literacy and cooking skills. To date, there is no explicit definition for the concept of food literacy that is agreed upon nor adopted in the literature. Some authors utilize terms such as “cooking” (Caraher, Dixon, Lang, & Carr-Hill, 1999; Short, 2003) and others discuss “food preparation” (Lai Yeung, 2007; Larson et al, 2006a; Larson, Story, Eisenberg, & Neumark-Sztainer, 2006b). Perhaps the most complete definition of food/cooking skills which also relates to food literacy was crafted by Short (2003), who provided a systematic framework for consideration of domestic cooking, grounded in the definition of “cooking skills.” She found that there was a complex interrelationship among domestic cooking practices and abilities, cooking skills, and approaches to cooking, “incorporating more than just practical, technical ability” (p. 17). Short recognized that domestic cooking skills are contextual and dependent upon the individual undertaking the assignment of cooking. She included in her definition the ability to use both raw and pre-prepared foods and also appreciated the contribution that cooking equipment plays in how cooking is accomplished (e.g., the use of microwave ovens). The art and science of cooking and the development of cooking skills is multidimensional and demands special attention when applied to unique population such as at-risk youth. For the purpose of this paper, an adaptation of Short’s definition was used, identifying food skills and literacy as a complex, interrelated, person-centred set of

skills that are necessary to provide and prepare safe, nutritious, and culturally-acceptable meals for all members of one's household (Region of Waterloo Public Health, 2009).

Enhancing food literacy among at-risk youth through cooking skills instruction and introduction to the agri-food industry was the overarching goal of the *Cook It Up!* program; this overarching goal was considered at each step of the program planning, as advised by the GMPP (McKenzie et al., 2009), and as will be discussed in the next chapter of this dissertation.

Food literacy among at-risk youth. Healthy eating habits established in childhood and adolescence can contribute to healthy lifestyle patterns into adulthood and potentially reduce the incidence of chronic disease overall (Biro & Wien, 2010; Due et al., 2011). Poor dietary habits during adolescence can have negative impacts on several health and wellness indicators including day-to-day wellbeing and functioning, achievement and maintenance of healthy weights, proper growth and development patterns, and dental health (Nappo-Dattoma, 2010; Ng, Young, & Corey, 2010; Riediger, Shooshtari, & Moghadasian, 2007). Researchers have found that when youth are involved in preparing food for meals, they are more likely to eat more nutrient-rich foods including higher intakes of fruits and vegetables, higher intakes of key nutrients, and lower intakes of fat (Anderson, Bell, Adamson, & Moynihan, 2002; Aumann et al., 1999; Brown & Hermann, 2005; Larson et al., 2006a; Thonney & Bisogni, 2006; Wrieden et al., 2007). However, these studies assume youth have access to food on a regular basis and live in a family-style environment. While youth involvement in food literacy-related tasks such as food shopping and preparation (Hebert & Jacobson, 1991; Skinner, Salvetti, & Penfield, 1984; Watt & Sheiham, 1996) is found in the literature, the target populations studied do

not tend to be at-risk youth in transition from the family home, foster care, or a group home environment to independent living.

Disadvantaged, at-risk youth tend to have poorer social determinants of health such as lower socio-economic status (SES) (Mohajer & Earnest, 2010). Combined with and facilitated by unstable home lives, these youth are at a higher risk of consuming an unhealthy diet (Anderson et al., 2001), and face other challenges such as addiction and homelessness (Hadland, Kerr, Li, Montaner, & Wood, 2009; Rachlis, Wood, Zhang, Montaner, & Kerr, 2009). There is a cyclical impact on health and social outcomes faced by at-risk youth. These adolescents have SES and/or living arrangements that put them at increased risk for a variety of physical and psycho-social issues including poor nutrition. As a result, their poor nutrition contributes to a cycle of exacerbated physical and psycho-social issues (Mohajer & Earnest, 2010). It can be a challenging situation in which at-risk youth often find themselves, resulting in the ongoing need for programming which can provide skills to improve the impact of nutrition on their health and wellbeing.

One potential solution to the above-noted nutritional and health challenges affecting youth may be the development and implementation of a cooking program highlighting food literacy and cooking skills, using a process that engages youth in an empowering manner. The provision of a hands-on, practical life skills cooking program targeting at-risk youth (in service of building self-efficacy, knowledge, confidence, and potential enhancement of some of their social determinants of health) has been deemed a necessary intervention (Region of Waterloo Public Health, 2009). Therefore, a structured health promotion programming approach (i.e., the GMPP; McKenzie et al., 2009) was used in an attempt to accomplish the goal of designing a program that met the criteria

outlined above (i.e., an empowering cooking program for at-risk youth to facilitate increase in food literacy and cooking skills). The full details of this design are found in chapter two of this document.

Importance of food literacy and cooking skills. Food and cooking skills are important for several reasons with respect to health, knowledge, empowerment, engagement, culture, food security, and fun (Anderson, 2007; Lang & Caraher, 2001; Lang, Caraher, Dixon, & Carr-Hill, 1999; McLaughlin, Tarasuk, & Krieger, 2003). However, domestic cooking skills are becoming eroded, or at the very least, are in transition, such that the foods people cook, the food preparation skills they use, and where they cook are influenced by social, economic, and cultural contexts (Lang & Caraher, 2001; Lang et al., 1999; Short, 2003). For example, there has been an ongoing social change of cooking since the late 19th century with the entrance of women into the workforce and out of the family kitchen (Lang & Caraher, 2001). Lang and Caraher (2001) indicated that family meals ignite the debate about food literacy and cooking skills. In the economic context, the increased accessibility, variety, and consumption of pre-prepared foods flood the market and make cooking from “scratch” a food literacy practice in transition (Short, 2003). While technological advances in kitchen and cooking equipment can facilitate an individual’s ability to prepare foods (Short, 2003), advanced technology and its impact on cooking can also eclipse the cultural and traditional role home economics once played by removing the skill required to put ingredients together to make a meal from “scratch” (Lang & Caraher, 2001). As such, the link between the erosion of essential life skills (i.e., food literacy and cooking skills) and its impact on health, including the current Canadian obesity epidemic, needs to be explored.

Today, a greater proportion of Canadians' food is being consumed away from home. In fact, according to the Canadian Council of Food and Nutrition report, *Tracking Nutrition Trends - VII* (2008), many Canadians reported eating non-home-prepared meals two or three times weekly either at restaurants and/or via take-out food. In concert with these statistics, the amount of time spent to prepare meals has been declining significantly since the early 1900s (Bowers, 2000; Canadian Grocer, 2000). For example, in 1900, the average time spent daily for meal preparation was over six hours and one century later, the time reserved for this essential task has declined drastically to an average of only 45 minutes daily (Bowers, 2000; Canadian Grocer, 2000). Although many modern conveniences, such as microwave ovens, have helped to reduce food preparation times over the last 100 years, the predominant change in eating and meal preparation culture has been identified as due to most adults in a family working outside the home, participation in busier lifestyles, and an increased number of hours spent at work during the week. In the same time-frame, Canadians have also experienced, in general, a much reduced cooking skill set (Canadian Grocer, 2000). In most provinces in Canada, cooking skills are not taught in the majority of elementary schools and taught much less in households today compared to the past (Canadian Foundation for Dietetic Research, 1997; Harnack, Story, Martinson, Newmark-Sztainer, & Stang, 1998). Some researchers contend that domestic food preparation may have resulted in a "deskilling" in cooking as a result of a lack of introduction and opportunity to acquire cooking skills from parents, grandparents, or school environments (Caraher & Lang, 1999; Lang & Caraher, 2001; Lai Yeung, 2007; Short, 2003). Lang and Caraher (2001) proposed that the limited awareness of food, cooking skills, and knowledge about how foods are grown and

harvested lead to barriers related to consuming a healthy diet and ultimately achieving and maintaining a healthy weight.

Researchers have found that cooking education has a very positive impact on behaviours and attitudes toward cooking and healthy eating, such as increased consumption of fruits and vegetables, improved food safety behaviours, higher frequency of cooking, increased nutrition knowledge, higher self-efficacy, and less money spent on food (Aumann et al., 1999; Brown & Hermann, 2005; Crawford, Ball, Mishra, Salmon, & Timperio, 2005; Cullen, Watson, Zakeri, Baranowski, & Baranowski, 2007; Lai Leung, 2007; Lang et al., 1999; Larson et al., 2006a; Larson et al., 2006b; Meehan, Yeh, & Spark, 2008; Shankar & Klassen, 2001; Stitt, 1996; Stockley, 2009). Although it is well-accepted that nutritional intake during the adolescent years impacts physical health, risk of future disease, and bodyweight (e.g., Larson et al., 2006a), there are few studies examining the food preparation and cooking skills of youth, especially at-risk youth. There are also few studies examining youths' understanding of food literacy in the context of local farms and farmers' markets including how it relates to their ability to select, prepare, cook, store, and enjoy foods prepared from 'scratch.' The limited evidence related to the context of at-risk youth, cooking skills, and food literacy provided the impetus for the planning, implementation, and formative evaluation of the *Cook It Up!* program.

Efficacious cooking program components for youth. Relatively few studies have focused on identifying efficacious components of cooking programs targeted at youth. As such, the practical lessons taken from the literature come from a small number of studies, and some of authors included in their research youth whose ages fall outside

the range of focus for this dissertation (but whose focus was deemed useful nonetheless). A particularly helpful article was written by Larson and colleagues (2006a) who studied adolescents (11-18 years of age) in middle and high school in Minnesota. They described adolescents' involvement in food preparation and shopping and examined the extent to which involvement was related to diet quality. Though the study did not provide specific details of a program, the researchers concluded that adolescents should be supported to assist with meal preparation to improve the quality of their diets (Larson et al., 2006a). Furthermore, the authors indicated that programs focusing on cooking skills and food selection knowledge and awareness (i.e., food literacy) would be beneficial to this unique population in terms of improving their self-efficacy toward food preparation and diet quality and they recommended community-based programs to facilitate this goal (Larson et al., 2006a).

Larson and colleagues (2006b) conducted a study focusing on food preparation behaviours, cooking skills, resources for food preparation, and diet quality among young adults aged 18 to 23 years. Results from this study demonstrated that young adults who were able to prepare foods more frequently also consumed less fast food and were better able to meet nutritional requirements for fat, calcium, fruit, vegetables, and whole grains (Larson et al., 2006b). Again, these authors concluded that interventions targeting young adults should teach skills for preparing fast, nutritious meals (Larson et al., 2006b).

Although Levy and Auld's (2004) studied a slightly older group than is the focus of this dissertation, their investigation provided useful insights for targeting younger people who tend to struggle with nutrition. They studied second year university students (mean age of 19.7 years) in two treatment groups: food demonstration versus hands-on

cooking classes. The main focus of this study was to measure changes in attitudes, knowledge and behaviours regarding cooking. Recognizing that food demonstration classes could reach larger groups of people in different settings, the researchers noted that providing cooking classes would have a greater impact in terms of attitudes, cooking-related knowledge, skills, and behaviours (Levy & Auld, 2004). The positive shift in self-efficacy was higher (and statistically significant) in the cooking classes group compared to the food demonstration group (Levy & Auld, 2004).

As underscored above, the importance of hands-on experiences with food preparation was also realized in a study by Liquori, Koch, Contento, and Castle (1998) in a sample of much younger ‘youth’. Their study involved a nutrition education intervention for children in grades Kindergarten to six, called the “Cookshop Program.” The program was designed to increase preferences for and consumption of whole grains and vegetables through cooking these foods in the classroom, providing numerous opportunities to try the same foods in the cafeteria, and including parent involvement (Liquori et al., 1998). Results from this study suggest that real cooking experiences, eating food with peers, and accompanying educational components specific to nutrition and healthy eating are effective approaches for children (Liquori et al., 1998).

Aumann and colleagues (1999) focused their attention on program staff rather than children or youth. In their program “Cuisine for Kids,” instructing school and child care staff about nutrition concepts and culinary skills was facilitated by chefs and nutritionists. While the goal of the program was that child nutrition program staff would be able to prepare healthy, tasty, and culturally diverse foods that appeal to young children, participants also reported improved self-esteem, increased professionalism,

confidence, and collaboration with teachers, parents, and others in the school community. Participants also commented on the positive benefits to learning through hands-on food preparation (Aumann et al., 1999).

In a study by Beets, Swanger, Wilcox, and Cardinal (2007), cooking classes were also identified as the preferred method of delivering nutrition education programs. In a summer camp program focusing on cooking with young adolescents, “Culinary Camp” provided youth with the opportunity to modify their cooking behaviours and attitudes toward cooking. The researchers noted that the hands-on format of the camp brought forth receptiveness from the campers including allowing the participants to engage in the cooking component which generates enthusiasm and greater positive connection to the program and its content (Beets et al., 2007).

Providing hands-on experiences during which participants in a cooking program apply skills and learn to create foods from scratch fosters a fun learning opportunity (Dougherty & Silver, 2007). Dougherty and Silver (2007) described a cooking education series in which chefs and nutrition professionals facilitated an educational program targeting children aged 8 to 12 years. The role-modeling provided by each chef-nutrition professional team was significant in terms of using cooking to teach nutrition via practical and enjoyable methods (Dougherty & Silver, 2007). A program introducing chefs to participants is a unique way to captivate the attention of the participants to foster their interest in contributing to both in-class sessions and take-home activities.

Increases in confidence and self-efficacy were anecdotally identified in a study by Hunton (1994). This author described a program for school-aged children (aged 10-11 years) participating in a six-week session focused on developing cooking skills with an

emphasis on fun. While not formally evaluated, this program was well-received by participants and teachers alike. Teachers anecdotally reported the children developed greater self-efficacy and confidence as a result of participating in the cooking classes.

Another program, “Youth Cooking School” (Winter, Stanton, & Boushey, 1999), discovered that cooking curriculum was successful in achieving significant knowledge related to nutrition and food safety curriculum. This program included hands-on activities and food preparation methods to a target audience of children, aged 8 to 12 years. Incorporating food preparation methods into the curriculum to ensure participants accurately learn nutrition and food safety information was deemed a useful way of engaging children and youth while facilitating increases in their confidence about their abilities to select and prepare nutritious food for themselves and their families (Winter et al., 1999).

Byrd-Bredbenner (2004) demonstrated that overall food preparation knowledge of young adults was low. Interestingly, in this study, participants indicated they may be open to learning about food preparation skills because they realize it would assist their knowledge level about nutrition (Byrd-Bredbenner, 2004). Cooking classes are promising in terms of augmenting food preparation knowledge, attitudes, and self-efficacy (Levy & Auld, 2003).

In terms of family involvement in the studies reviewed, one key study focused on a nutrition-related health promotion initiative offered in an after-school program (Hyland, Stacy, Adamson, & Moynihan, 2006). Children participating in an after-school program were able to engage in food preparation was correlated with enhanced skill development and self-efficacy with respect to cooking skills. Interviews with their parents indicated

that a number of the children became more involved in cooking at home and making some recommendations about the foods chosen by the family; however, there was insufficient data to suggest the children were able to influence the family's food consumption overtly (Hyland et al., 2006).

These studies, while contributing to the limited body of evidence about cooking and food literacy skills in general, provide a foundation upon which *Cook It Up!* and other food literacy and cooking skills interventions for youth can be planned, implemented and evaluated. Through a review of the literature focused on efficacious components of youth-related cooking programs, it seems that it is particularly important to include fun, hands-on experiences, opportunities for nutrition education, including how to utilize healthy food ingredients and the principles of food safety, and to offer the program in a community setting. Additionally, it was important for *Cook It Up!* program planners to include an assessment of cooking skills before and after the intervention, to enhance cooking skills and food literacy, and to seek ongoing feedback and input from at-risk youth participants to shape the intervention. Each of these elements was incorporated within the *Cook It Up!* program, as well be outlined in the second chapter (Article 1).

Throughout the above-noted review of previously implemented cooking programs for youth, the importance of youth involvement and engagement was clear. Because this dissertation represents a research project, attempts were made to include youth participants in as many aspects of the full project as possible, including its research components. Therefore, research methodology of "Photovoice", which has also been

labeled a health promotion program in and of itself, was utilized to enhance youth involvement in the project while obtaining research findings about its appropriateness.

Using photovoice (PV) in health promotion program planning, implementation, and evaluation. Photovoice (PV) is a qualitative approach in which still picture cameras are used to document participants' health and community realities (Wang & Redwood-Jones, 2001). This unique approach combines grassroots social action with the creative expression of photographs (Wang, Yi, Tao, & Carovano, 1998) to respond to the research question and for discussing photographs taken as a means of inspiring personal and community change (Wilson, Minkler, Dasho, Wallerstein, & Martin, 2008). Sharing theoretical perspectives with health promotion, PV may be perceived as a practical and functional method to employ when considering health promotion strategies, particularly for vulnerable populations, which is the typical target for Photovoice, especially when reviewing how "empowerment" corresponds with the definition of health promotion (Wang et al., 1998). According to the World Health Organization (1998), health promotion represents a process, through participation and community mobilization, of enabling individuals to strengthen their skills thus enhancing their control over the determinants of health.

Action for health promotion is a comprehensive and political process aiming to alter social, environmental, and economic conditions while improving health (World Health Organization, 1998). Central to this notion is the importance of empowerment as a health-enhancing strategy that can promote community engagement which can facilitate the achievement of identified goal including enhanced overall quality of life (Wallerstein, 1992). The development of an appropriate health promotion strategy is determined by

using an insider's approach along with an outsider's perspective (Gittlesohn et al., 1999). Photovoice is a method that can represent one step in health promotion planning by showcasing the insider's perspective (the vulnerable population participating in PV) and the outsider's view (the key stakeholders to whom the photos are shown) with the purpose of informing and advancing healthy public policy. Therefore, PV can be an effective approach to assist priority populations with advocating for health issues identified as priorities to them.

This dissertation draws upon PV to advance the understanding, from the perspective of at-risk youth, of the barriers and facilitators to the application of food literacy and cooking skills among youth participants external to their involvement in the *Cook It Up!* program following its conclusion. The at-risk youth participants in the PV study were asked what they perceived as the facilitators and barriers to the application of their acquired cooking skills outside the *Cook It Up!* program (Article 3). Having an appreciation of how the program provided participants with necessary life skills was important but the PV research project also served as a conduit to key educational stakeholders to demonstrate the value of implementing community-based cooking programs outside the traditional classroom setting, with credit awarded to participants in such a program. The PV research project results can provide evidence to key stakeholders to consider allowing for non-traditional curriculum provision to meet the needs of vulnerable youth both within and outside the school system. The lead investigator will be taking forward the results of the *Cook It Up!* formative evaluation (Article 2) and the PV study (Article 3) to advocate for this proposed opportunity with relevant school board representatives and officials. It may also be empowering for the participants in the PV

study to share their photographs with school board representatives and to be provided a voice to demonstrate, through pictures and words, the value of the *Cook It Up!* program.

Generalized model for program planning (GMPP). When planning health promotion programs and services, the Generalized Model for Program Planning (GMPP; Figure 1) provides a useful and essential tool for health professionals, according to McKenzie et al. (2009). This model outlines common phases of program planning including “assessing needs, setting goals and objectives, developing an intervention, implementing the intervention, and evaluating the results” (McKenzie et al., 2009, p. 17). Each step and sub-step of the model are introduced below, and to contextualize each step with examples, specific albeit brief references to their use for the *Cook-it-Up!* program are provided. The full details about the program components as they have been applied to the *Cook-it-Up!* program are located in the next chapter of this dissertation.

Step one: Assessing the needs of the population. The purpose of the GMPP is to assist the planner in adapting to planning opportunities while incorporating the guiding or planning principles provided in the model (McKenzie et al., 2009). The sequence of the steps in this model is logical and progressive, with each step building upon the previous step (McKenzie et al., 2009). The first step in this model is to *assess the needs of the population* (McKenzie et al., 2009). In this step, program planners work to identify the needs of the priority population and establish the extent to which their needs are or are not being met (McKenzie, et al., 2009). For *Cook It Up!*, the needs assessment was conducted informally with key stakeholders (working directly with at-risk youth) who had the direct knowledge and understanding of the needs of those in this particular priority population (McKenzie et al., 2009). Specifically, staff from social service

agencies working with at-risk youth (i.e., Middlesex-London Health Unit, Youth Opportunities Unlimited, Children's Aid Society, Boys and Girls Club of London) was invited to dialogue with the lead agency (London Community Resource Centre) about their opinions regarding the need to implement an intervention for at-risk youth focusing on food literacy and hands-on cooking skills. The possibility of taking at-risk youth on fieldtrips to local farms and farmers' markets was also explored with these key stakeholders to determine the potential need and impact this kind of fieldtrip may have with this unique population. The connection with staff directly involved with youth was invaluable because it provided the lead agency with insight into the overall need for community-based programming for this population. Specifically, the lead agency was able to glean the opinions of key stakeholders with respect to the proposed concept of a community-based cooking program for at-risk youth focusing on hands-on skill development and food literacy opportunities. As advised by McKenzie et al (2009), these key informants were assumed to be respected by others in the community because of their direct link to the population and inside understanding of the youths' specific needs as well as gaps in youth-focused services.

McKenzie et al (2009) purport that in addition to using information from key stakeholders, a needs assessment can be particularly strengthened by seeking additional information from participants themselves using succinct written questionnaires. However, the at-risk population with whom we were working presented with challenges with literacy. Therefore, written pre- and post-test food skills questionnaires were administered orally and with individual at-risk youth (one-on-one) by a member of the research team with *Cook It Up!* participants (Article 2).

Step two: Setting goals and objectives. The second step in the GMPP is setting goals and objectives (McKenzie et al., 2009). Goals are defined as simple, concise statements of all aspects of the program with the purpose of providing overall direction to the long-range outcomes of the intervention (Jacobsen, Eggen, & Kauchak, 1989). Objectives are more precise statements which express the specific steps required to achieve the program goals (McKenzie et al., 2009). There were a number of overall goals of the *Cook It Up!* program which focused on food literacy enhancement and cooking skills development. Overall, these goals involved providing hands-on cooking instruction to at-risk youth with skills facilitated by local chefs and enhancing food literacy through the introduction of at-risk youth participants to local farms and farmers' markets to facilitate their understanding of where their food comes from, how it is grown and harvested, and how it can be incorporated into recipes using the cooking skills explored. Objectives for the *Cook It Up!* program were more defined and included: the specific development of food literacy curriculum (i.e., precise cooking skills required to create recipes featuring local and seasonal agri-food industry products; Table 1); specific fieldtrip opportunities to establish and enhance the education and awareness of local agriculture and agri-food industry (Table 2); principles of healthy eating (Table 3); and food purchasing skills including label reading during a grocery store tour (Health Canada, 2010).

Step three: Developing an intervention. The third step in the GMPP is developing an intervention (McKenzie, et al., 2009). This step requires program planners to convert plans, goals, and objectives into intended actions and outcomes (Timmreck, 1997). The development of the *Cook It Up!* intervention included the creation of more

tangible components of the program plan such as but not limited to: the formal reporting structures for the Steering Committee and Program Coordinator; specific management activities; policies and procedures for the implementation of the cooking and field trip sessions; documentation of emergency procedures (i.e., first aid, safety procedures, medical concerns, behaviour management); and consent forms for fieldtrips and participation in the program and research involved in the program. During the process of developing the *Cook It Up!* program, a number of considerations needed to be made by the Steering Committee. As outlined by McKenzie et al. (2009), safety and medical concerns, ethical issues, legal concerns, program registration and fee collection, procedures for record keeping, procedural manual, training, dealing with problems, and reporting and documenting were all considered and planned by the host agency and Steering Committee for *Cook It Up!* prior to implementation. The Steering Committee drafted safety procedures to be followed in case there were any preventable injuries in the kitchen or on a fieldtrip. A medical information form was created and completed by each participant in the program. In terms of legal concerns, consent and permission forms were created and distributed for signatures from parents/guardians and participants in the program. There was no fee required for participants to become involved in the program; any operational costs for the program were supported by received funding. Formal record keeping was completed by all members involved in the program including the Steering Committee (minutes from meetings), the Program Coordinator (activity reports), volunteers (incident reports), and participants themselves (food and fieldtrip journals). A procedural manual was developed to keep the program on track and to ensure the best interests of the participants were always identified and addressed. Steering Committee

members and volunteers received sensitivity training related to working with at-risk youth. There were expectations related to reporting that were outlined to the Program Coordinator. Furthermore, the host agency was required to complete reports about the progression of the *Cook It Up!* program at specific times throughout the funding period. It was evident that significant time and energy was taken to ensure these vital components of program planning were in place to facilitate an efficient implementation of the program. The “How-to Manual” (Appendix A) and Article 1 highlight many of these implementation documents, procedures, and processes. Ethical approval for all aspects of the Cook-it-Up! design was received by the University of Western Ontario’s Office of Research Ethics (Appendix D).

Step four: Implementation of the intervention. As previously mentioned, the implementation of the intervention involves operationalizing the plans, goals, and objectives developed for the program (Timmreck, 1997). The process of implementation involves a number of phases of program implementation, as described by McKenzie and colleagues (2009). Each phase is described below.

Phase one: Adoption of the program. Phase one is identified as the adoption of the program (McKenzie et al., 2009) in which appropriate marketing of the program must be considered. For *Cook It Up!*, a number of strategies were used to promote the program to potential participants. For instance, Facebook® and YouTube® promotions occurred in concert with website promotions on credible local health and social service agency websites (e.g., the websites for the Middlesex-London Health Unit, Healthy Living Partnership of Middlesex-London which is a health promotion coalition, and the London Community Resource Centre). Additionally, local television media (e.g., Rogers

Community Television, A Channel/ATV, a subsidiary television company of CTV Television Network) was used to promote the program. Perhaps the best method of recruitment and program promotion was through word-of-mouth via our key stakeholders (e.g., staff working with at-risk youth in local social service agencies such as Youth Opportunities Unlimited and the Boys and Girls Club of London) who had direct contact with at-risk youth. Youth workers were provided a description of “at-risk” in the context of this dissertation and subsequently identified suitable youth for the program.

These key stakeholders were trusted by at-risk youth interested in participating in the program and they had previously established rapport with the at-risk youth which served to encourage them to apply to the *Cook It Up!* program. Efforts also were taken, as suggested by McKenzie et al. (2009), to determine that the priority populations targeted by the Steering Committee actually would want to be a part of the intervention. For example, at-risk youth were consulted about the intervention prior to its implementation. At an informal community meeting, the lead agency proposed the idea of the program to at-risk youth to gauge their interest and seek feedback regarding their participation in it. This feedback shaped the program development.

Phase two: Identification and prioritization of tasks to be completed. Phase two of program implementation involves the identification and prioritization of the tasks to be completed (McKenzie et al., 2009). The role of the Program Coordinator of *Cook It Up!* was to complete this phase of program implementation. As advised by McKenzie and colleagues (2009), the Program Coordinator, under the guidance of the Steering Committee, was charged with creating activity charts with timelines that highlighted all

Table 1

*Cooking Skills Checklist***Getting Ready to Cook:**

- Reviewing the recipe
- Adjusting the recipe
- Reviewing ingredients available and required
- Assessing available equipment
- Following prescribed directions

Kitchen Safety:

- Food safety principles (safe food handling)
- Clean-up tasks

Meal Planning:

- Menus
- Setting a table
- Dining etiquette

Food Label Reading:

- Net weight
- Food label information
- Ingredient label
- Health claims information
- Unit cost
- Origin of food (local vs. imported)

Mixing Methods:

- Muffin method
- Biscuit method
- Drop cookie method
- Rolled cookie method
- Shaped cookie method
- Cake method
- Rapid mix yeast dough method
- Straight dough method
- Cool-rise method

Cooking Techniques and Terms:

- Shelling an egg
- Separating an egg
- Sift
- Blend/whisk
- Cream
- Cut-in
- Knead
- Ferment, raise, rest, punch
- Fold-in
- Peel
- Slice, dice, grate
- Roll out
- Divide dough
- Simmer
- Boil
- Bake
- Broil

Measuring Skills:

- Kitchen Measurements
 - Teaspoons
 - Tablespoons
 - Cups
 - Scales
- Dry ingredients
- Liquid ingredients
- Shortening, butter, and margarine measurements
- Brown sugar measurements
- Other

Harvesting Skills:

- Harvesting ripe produce from the field

Note: Adapted from Home Baking Association, n.d.

Table 2

Fieldtrip Opportunities during Cook it Up! Program

Dolway Organic Garden

Dwarf Tree Orchards

Kinsmen Sugar Bush

Sleger's Greenhouses

Fanshawe College Culinary Management Program

O'Shea's Farm

Western Fair Farmers' Market

Covent Garden Market

Grocery Store Tour

National Youth Week – Catering event

Medway Community Centre – Catering event

Table 3

Canada's Guidelines to Healthy Eating

Emphasize cereals, breads, other grain products, vegetables and fruits.

Choose lower-fat dairy products, leaner meats and foods prepared with little or no fat.

Achieve and maintain a healthy body weight by enjoying regular physical activity and healthy eating.

Limit salt, alcohol and caffeine.

Note: Health Canada, 2003, http://www.hc-sc.gc.ca/fn-an/res-rech/res-prog/eat-aliment/guiding_cdn_lead-lead_cdn_inciter-eng.php

key activities to take place including an estimation of the dates when these activities would occur, and the time allocated to each task. The purpose of the activity charts was to keep both the Steering Committee and Program Coordinator on task in conjunction with the deadlines established by the funding agency.

Phase three: Establishing a system of management. The third phase of program implementation focused on establishing a system of management (McKenzie et al., 2009). Essentially, this phase ensured that proper management of the program would help lead to its success (McKenzie et al., 2009). The *Cook It Up!* program was managed by the Steering Committee which was comprised of a diverse group of individuals representing various sectors within the community (e.g., health, social service, business, research, academia, agri-food, foodservice, and general community) in service of promoting health and well-being for at-risk youth. It was the Steering Committee's responsibility to ensure the Program Coordinator was completing his assigned tasks in a timely manner while meeting the goal of having the community-based cooking and food literacy program for at-risk youth that was both well-received in the community and executed with diplomacy and professionalism.

Phase four: Putting plans into action. Phase four of program implementation involved putting the plans into action (McKenzie et al., 2009). The *Cook It Up!* program opted for a pilot testing model in which challenges associated with the implemented program could be identified and managed before the program was expanded to a larger sector of the target population (McKenzie et al., 2009). The pilot project for *Cook It Up!*, as recommended by McKenzie et al. (2009), included verification that the intervention strategies were put into place as planned, the intervention strategies worked as planned,

adequate resources were available to implement the intervention, and participants in the intervention had the opportunity to contribute to its evaluation (as outlined in Articles 2 and 3).

Phase five: Deciding to conclude or sustain the program. Finally, phase five of program implementation focuses on whether or not the program should conclude or be sustained (McKenzie et al., 2009). For the purpose of *Cook It Up!*, while there was great interest in continuing the program, the funding for the intervention was time-limited (18 months) and ceased when the intervention was completed. However, modifications to some of the program's components have since been made to help sustain many of its components. Agencies involved in *Cook It Up!* have partnered with other community groups and organizations sharing similar missions and a willingness to allocate resources and responsibilities for continuing the program in some capacity (McKenzie et al., 2009). The food skills and food literacy aspects of *Cook It Up!* have been identified as very important components of this program and have resulted in advocacy for community-based cooking programs such as *Cook It Up!*, at the provincial level, to be implemented these skills through similar programming. Advocacy is a key element of the Ottawa Charter of Health (1986) and is also a key technique to sustainable programming (McKenzie et al. 2009). Furthermore, other agencies in London, Ontario (e.g., The Children's Aid Society, Youth Opportunities Unlimited, Cross Cultural Learners Centre, North Bay and District Health Unit) have adopted the program in their communities thus creating the need to review the program's goals and objectives to determine its utility in their communities, another way in which the program can be sustained (McKenzie et al., 2009).

Step five: Evaluating results. The last step of the GMPP pertains to evaluating the results, and specifically serves to assess and improve the quality of the intervention and to determine its effectiveness (McKenzie et al., 2009). The GMPP (McKenzie et al., 2009) provided guidance for the development of an evaluation plan for *Cook It Up!*. This evaluation plan involved completing a formative evaluation to assess the program's value from the perspective of the collective participants (e.g., Steering Committee members, Program Coordinator, volunteers, guest chefs, fieldtrip operators, at-risk youth participants, parents/guardians), and what could be done to make it as useful as possible. According to Green and Kreuter (2005), the formative evaluation serves to "assess the relevance, comprehension, and acceptability of activities, materials, methods" employed throughout the intervention (p.207). Employing in-depth interviews with many of the people involved in *Cook It Up!* (e.g., Steering Committee members, Program Coordinator, volunteers, guest chefs, fieldtrip operators, at-risk youth, and parents/guardians), the lead investigator was able to garner rich, contextual data highlighting the successes and challenges experienced throughout the program (Article 2).

Suitability and application of the GMPP. While the GMPP may seem linear (see Figure 1), there was the opportunity for program planners to move from step to step and back again, thus facilitating a "guiding paradigm" that would keep the program on track while providing a solid foundation for health promotion planning (as was suggested by McKenzie et al., 2009, p. 18). Program planners are encouraged to turn to this sequential guidance to ensure effective and efficient health promotion programs are

constructed (McKenzie et al., 2009). The *Cook It Up!* program put into place the components of the GMPP to help facilitate the success of this pilot project.

In this dissertation, the GMPP was applied for a number of reasons. First and foremost, this model was logical and facilitated health promotion planning (McKenzie et al., 2009). The selection of an appropriate planning model was based on other factors as well. According to McKenzie and colleagues (2009), the preferences of key stakeholders can determine which planning model is used. For *Cook It Up!*, the preferences of key stakeholders involved in the planning process were met because the food literacy concept met the mandates of all agencies involved and was consistent with the identified needs of potential participants. The key stakeholders involved in the project included social service agencies (i.e., Youth Opportunities Unlimited, Boys and Girls Club of London), the Middlesex-London Health Unit, active and retired teachers, a representative from the local agri-food industry, a representative from business, a representative from the local chefs' association, representatives from academia, and at-risk youth themselves. The common mandates of these agencies/groups focused on engaging with the community in different ways, be it through educational program provision (health unit, teachers, academic institutions, agri-food industry), through demonstrating to the community members what their services were (local chefs' association representative, business representatives), or being a member of the community, specifically, a vulnerable population within the community (at-risk youth). The stakeholders' agreed-upon mandate was to establish and enhance the education and awareness of agriculture, healthy eating, food preparation, and purchasing skills among the unique at-risk youth target population; the GMPP allowed for the program design and structure needed for

appropriate guidance while at the same time offering flexibility required for this unique community-based program.

Another consideration in the model selection, as per McKenzie et al. (2009), related to the time and funding available for planning purposes. The planning of *Cook It Up!* incorporated specific timelines and funding parameters which included resources for data collection and analysis, as recommended by McKenzie et al.(2009). Adequate funding for *Cook It Up!* was provided by a variety of sources including the Ontario Agri-Food Education Inc. (OAFE), Healthy Living Partnership Middlesex-London, the Middlesex-London Health Unit, Ontario Bean Producers Marketing Board, and Ontario Pork. Resources available for data collection and analysis were also taken into consideration when selecting a planning model (McKenzie et al., 2009). Stipulations were made by the major funding agency, OAFE, indicating that a dedicated percentage of funding could be used for hiring program staff, reporting guidelines and deadlines needed to be followed, and all deliverables identified in the proposal were expected at the conclusion of the project. Additionally, adequate funding from all sources contributing to *Cook It Up!* was carefully budgeted to ensure operational costs, transportation, program coordination, and evaluation components of the program were covered by the funds granted. Specific details about *Cook It Up!* are provided in Article 1 and in Appendix A.

Three Fs of Program Planning. To help guide the GMPP model selection and application, program planners can also consider the “Three Fs of Program Planning,” which are important when constructing an intervention. The “Three Fs of Program Planning” (McKenzie et al., 2009) are fluidity, flexibility, and functionality and they add further structure to the GMPP as it helps to guide program planners through the entire

planning process (McKenzie et al., 2009). Similarly to the description of each step within the GMPP, the following section will include an introductory overview of each “F” contextualized briefly by its application for the Cook-it-Up! Program (with more in-depth application provided in Article 1).

Fluidity. Fluidity, in the context of program planning, means having the ability to flow easily by following a logical order or sequence (McKenzie et al., 2009). The steps in the planning process tend to build upon each other such that while it may not be problematic if one step is omitted, it *is* necessary to perform steps in sequence (McKenzie et al., 2009). For example, for the *Cook It Up!* program, it would be impossible to develop goals and specific objectives for the program without assessing which target population to approach. Furthermore, without having a solid understanding of the unique characteristics of the selected target population and their needs, there would be no sense in attempting to develop the program further. Fluidity in the *Cook It Up!* program was adhered to from very early planning stages. Key stakeholders met to discuss the need to implement cooking skills development opportunities with a local, underserved target population. Careful selection of the at-risk youth target population included the need to have a good understanding of *who* comprised the priority population, *what* their specific needs were, and *how* to engage them (as advised by McKenzie, Pinger, & Kotecki, 2008). From this assessment of the needs of the at-risk youth population, program planners and *Cook It Up!* Steering Committee members were well equipped to ensure they had a good understanding of the selected population and their specific needs, what was currently being done, or not being done, to address these needs, and how well the identified needs had been addressed in the past (McKenzie, Pinger, & Kotecki, 2008). After the needs

assessment was established, program planners attempted to see that fluidity in program planning was a priority and thus followed the GMPP in a logical sequence by setting goals and objectives, and progressing to the development, implementation, and formative evaluation of the program.

Flexibility. Flexibility refers to how the planning was adapted to suit the needs of the key stakeholders, including participants (McKenzie et al., 2009). Program planners needed to be flexible to be able to modify the program as it progressed. Without flexibility in program planning, stakeholders and participants may become frustrated and outcomes may not be satisfying (McKenzie et al., 2009). An example of how flexibility was utilized in the program planning of *Cook It Up!* related to the timing of the program to fit the needs of the target population. Even though not all participants in *Cook It Up!* were attending school on a regular basis, it was important to be flexible in the time of day the *Cook It Up!* program was offered. Consequently, the program was offered between 4:00 and 6:00 pm on a weekday early in the week to accommodate the participants who attended high school during the day. The location where the program was offered provided another example of the need for flexibility. The Steering Committee was unsuccessful in securing a permanent, centrally located facility to conduct the cooking component of the program and needed to change locations on a few occasions prior to finding a suitable permanent facility. The Program Coordinator, guest chefs, and at-risk youth participants demonstrated flexibility in their ability to modify the program as it progressed from location to location until the final destination was secured.

Functionality. According to the Oxford Dictionary (2011), functionality is defined as the ability to serve a purpose well. Functionality in the context of program

planning means that the outcome of planning is to accomplish the overall goal of enhanced health, not the creation of the program plan in and of itself. The goal of the *Cook It Up!* program was bolstered by anecdotal reports by participating at-risk youth who attributed their improved food literacy and learning cooking skills to their participation in the program (Article 2); moreover, they felt able to apply their established cooking skills in environments external to the program (Article 3).

Participatory action research (PAR). *Cook It Up!* was constructed using the principles of Participatory Action Research (PAR), a method of inquiry in which researchers and participants work together to develop goals and methods for the research project (Cornwall & Jewkes, 1995; Kidd & Kral, 2005). Patton (2002) succinctly outlined the principles of fully participatory inquiry (Table 4) to include criteria such as authentic involvement of participants in major decisions and design construction, recognition and valuing of participants' perspectives and expertise, and the minimizing of status and power differences among the research-facilitator and participants (Patton, 2002). PAR, as its name suggests, involves participation and action. The definition of "participation" is the action of taking part in something (Oxford University Press, 2011) and "action" can be described as the process of doing something (Oxford University Press, 2011). As such, PAR is a unique process that assesses and incorporates the specific characteristics and experiences relevant to the target population (Kidd & Kral, 2005). In this context, the group considered were at-risk youth engaging in the food literacy and cooking skills program.

Following the GMPP (McKenzie et al., 2009), *Cook It Up!* incorporated several elements of PAR, from the development of the original food literacy concept of the

Table 4

Principles of Fully Participatory and Genuinely Collaborative Inquiry

The inquiry process involves participants in learning inquiry logic and skills, for example, the nature of evidence, establishing priorities, focusing questions, interpreting data, data-based decision making, and connecting processes to outcomes.

Participants in the process *own* the inquiry. They are involved authentically in making major focus and design decisions. They draw and apply conclusions. Participation is real, not token.

Participants work together as a group and the inquiry facilitator supports group cohesion and collective inquiry.

All aspects of the inquiry, from research focus to data analysis, are undertaken in ways that are understandable and meaningful to participants.

The researcher or evaluator acts as a facilitator, collaborator, and learning resource; participants are coequal.

The inquiry facilitator recognizes and values participants' perspectives and expertise and works to help participants recognize and value their own and each other's expertise. Status and power differences between the inquiry facilitator and participants are minimized, as much as possible, and authentic, without patronizing or game playing.

Note. From "Qualitative research & evaluation methods" by M.Q. Patton. (2002) (3rd ed.), page 185.

program, to the needs assessment, program planning, design, implementation, and evaluation. At each step, at-risk youth and key stakeholders were consulted to ensure the ideas and plans for the intervention were concrete, appropriate, and reflective of this unique population's needs with respect to cooking skills development and food literacy. At-risk youth were equal contributors to the program planning, implementation, and evaluation. During the needs assessment, the lead agency met with key stakeholders who worked with at-risk youth to provide an overview of the proposed project to determine if they felt there was merit in pursuing funding for the initiative. In turn, these key stakeholders discussed the concept with their at-risk youth clients for feedback. This feedback shaped the proposal writing and informed the development of specific areas of focus for the program planning. At-risk youth were again consulted during program planning to confirm whether or not the Steering Committee for *Cook It Up!* was on track with the plans. Once the at-risk youth participants joined the program, there was ongoing feedback and consultation regarding the program itself as well as in the two studies comprising the initiative (Article 2 and Article 3). For example, youth feedback was critical in determining requisite cooking skills essential for upcoming recipes, the specific farms to visit to coincide with local food availability, recipe selection, and overall youth satisfaction in the program. Youth had the opportunity to actively ask questions, provide input, and inform all aspects of *Cook It Up!* thus providing an approach true to PAR.

The key elements of PAR include “understanding, mutual involvement, change, and a process that promotes personal growth” (Kidd & Kral, 2005, p. 187). *Cook It Up!* attempted to provide opportunities and encourage at-risk youth to experience each key element of PAR. Each of these components is described in detail below.

Understanding. In terms of understanding, this unique target population was listened to by the Program Coordinator, guest chefs facilitating cooking skills with the youth, and the Steering Committee members. This facilitated the ability to meet youths' specific needs for food literacy and cooking skills development throughout the duration of the entire program.

Mutual involvement. Mutual involvement was a key component of the program given the hands-on learning opportunities provided to youth. During each session, youth first passively listened to the guest chef or fieldtrip operator to learn about the specific food they would be preparing, its historical context in local agriculture, and how it was grown. After the observation period had concluded, participants were able to become directly involved with the guest chefs and/or fieldtrip operators in actively preparing the recipe or harvesting food for the selected recipes. This mutual involvement indicated to participants that they were equal partners in the development and implementation of *Cook It Up!* In the formative evaluation (Article 2), a majority of parents and guardians indicated that one key benefit and advantage of the *Cook It Up!* program was how the at-risk youths' opinions were valued and taken into consideration to inform the intervention.

Change. Change was an important component of client participation for consideration in *Cook It Up!*. The program needed to be flexible in order to meet the needs of the youth, most importantly, as well as the guest chefs and fieldtrip operators involved in the intervention. Additionally, challenges with having a permanent and central location for the duration of the entire project necessitated the need for flexibility and change. Change was not seen as a negative element within the program. It was presented to all community partners and participants as a typical consideration with

which the Steering Committee needed to contend in order to ensure ongoing program success. The main focus of the program planners throughout all instances of change was to ensure the program remained true to its goals and objectives. Even when change was necessary, it was equally necessary that it corresponded with and did not detract from already established goals and objectives. The need to be flexible with respect to change was explored earlier in this chapter with respect to the “Three Fs of Program Planning” (McKenzie et al., 2009).

Implementing a process promoting personal growth. Finally, implementing a process that promoted personal growth was an element of PAR underscored throughout the entire program. The goals and objectives of the Cook It Up! program were founded on increasing food literacy and cooking skills among at-risk youth. According to McKenzie and colleagues (2009), objectives provide structure between assessing the needs for a program and the planning of the intervention. The careful construction of the *Cook It Up!* program objectives served to keep program planners on track to ensure program goals were achieved (McKenzie et al., 2009).

PAR and its relationship to establishing learning objectives. There are different levels of objectives which can be ranked to allow for improved program planning (McKenzie et al., 2009). Lower level objectives lead to higher level objectives and goal achievement, with each level of objective successively becoming clearer and specific thus approaching goal achievement (Green & Kreuter, 2005, p. 102). Higher level objectives promoting personal growth are called “learning objectives” (McKenzie et al., 2009). Within learning objectives, participants move from awareness through to knowledge, attitude, and skill development and acquisition (McKenzie et al., 2009).

The application of self-efficacy to the *Cook It Up!* program. Self-efficacy is a concept grounded in Bandura's Social Cognitive Theory (SCT; 1999). Self-efficacy can be defined as "personal judgments of one's capabilities to organize and execute courses of action to attain desired goals" (Zimmerman, 2000, p. 83). As such, self-efficacy is achieved when an individual has the aptitude or ability necessary to overcome barriers that preclude the desired change in behaviour (Baronowski, Perry, & Parcel, 2002). Self-efficacy is situation-specific and can impact greatly one's psychological state of mind, behaviour, and motivation (Bandura, 1977). Bandura (1994) found that an individual's self-efficacy can play a significant role in how he/she approaches goals, tasks, and challenges. For example, an individual with a strong sense of self-efficacy approaches challenging problems more as tasks that he/she needs to master. This individual develops a deeper interest in activities and as such, forms greater commitment to their interests and activities (Bandura, 1994). Additionally, an individual with a strong sense of self-efficacy will be better able to recover from impediments, challenges, or disappointments (Bandura, 1994). On the other hand, an individual experiencing a weak sense of self-efficacy has less confidence in his/her ability to accomplish tasks. As such, he/she will avoid challenging tasks because he/she believes such tasks are beyond their capabilities altogether (Bandura, 1994). An individual with a weak sense of self-efficacy tends to focus on personal failings and negative outcomes and can quickly lose self-assurance in his/her personal abilities (Bandura, 1994).

There are four main ways to facilitate increases in self-efficacy (Bandura, 1994): mastery experiences, social modeling, social persuasion, and psychological responses. Three of the four strategies were purposefully incorporated into the *Cook It Up!* program.

For thoroughness, all four self-efficacy enhancing methods are explored below and where relevant, application examples from *Cook It Up!* are provided for context.

Mastery experiences. With respect to mastery experiences, Bandura (1994) referred to the ability of an individual to perform a task successfully thus strengthening his or her perception of self-efficacy. It is through these performance accomplishments, that is, the personal mastery of a task, which allows an individual to begin to believe in his/her ability to conduct the particular task or behaviour effectively and independently (Bandura, 1977). In *Cook It Up!*, the youth participants were provided with numerous opportunities to perform a variety of food literacy and cooking skill related tasks (Table 1) over the entire 18-month duration of the program. Whether it was knife, measuring, recipe adjustment, or harvesting skills, the at-risk youth were placed in situations where they were able to perform tasks at each cooking and fieldtrip session thus providing opportunities for task-mastery and therefore, enhanced food/cooking skill-related self-efficacy, throughout the intervention.

Social modeling. Social modeling, or achieving self-efficacy through vicarious experience, allows an individual to observe the performance of others (Bandura, 1994). When an individual watches another perform a task, the individual may start to believe that he/she possesses the ability to master similar tasks successfully (Bandura, 1994). At the beginning of every cooking session, participants in the *Cook It Up!* program observed the guest chefs conduct a food demonstration that introduced the participants to the recipe for the session. Participants were encouraged to ask questions about the food preparation and recipe selected. Additionally, youth participants worked in pairs and were also

partnered with a volunteer which facilitated the opportunity for socially modeling. Specifically, each partner observed the other group members complete the execution of various steps in the recipe process. This design was incorporated to help engage the participants in social modeling as outlined by Bandura (1994).

Social persuasion. Social or verbal persuasion suggests that verbal encouragement from others helps to remove self-doubt and uncertainty in one's ability to have the requisite skills and capabilities to succeed (Bandura, 1994). As such, social persuasion helps to provide the recipient with the ability to focus on trying his/her best to succeed in the completion of the task assigned (Bandura, 1994). During *Cook It Up!*, one of the key roles of the volunteers was to provide support and verbal encouragement to at-risk youth when they were involved in various cooking or harvesting tasks. The Program Coordinator anecdotally indicated to the Steering Committee that the positive feedback and championing provided by volunteers created a supportive environment in which at-risk youth were successful in achieving the desired tasks assigned.

Psychological responses. Finally, psychological responses or emotional arousal espouses that one's own responses and emotional reactions to various circumstances can influence self-efficacy (Bandura, 1994). One's mood, emotional state of mind, physical reactions, and level of stress can impact the perception of his/her personal abilities in different situations. Bandura (1994) maintained that if one is capable of learning how to minimize stress, he/she can improve the mood experienced when confronted with difficult tasks. As such, one's self-efficacy subsequently can be improved. This interpretation of one's emotional state is integral to enhancing self-efficacy (Bandura,

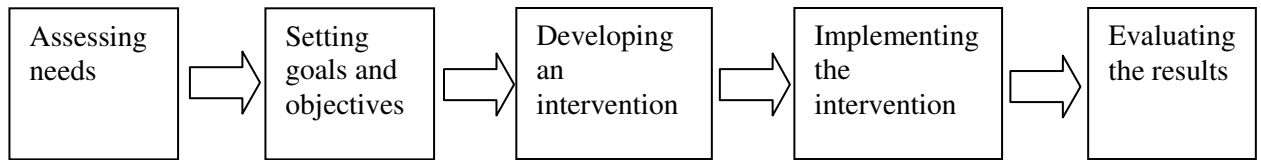
1994). During *Cook It Up!* specific opportunities for experiencing emotional state were not incorporated within the program design, nor was this observed nor explored.

Summary of Purpose and Introduction

The overall purpose of this dissertation was to examine the planning, implementation, and formative evaluation of a food literacy and cooking skills program grounded in the GMPP, using a PAR approach, and theoretically informed by the construct of self-efficacy. Within this chapter, the current poor state of food literacy and cooking skills among youth are discussed and the need to target at-risk youth is presented. Lessons learned from previous youth-related cooking skills programs are brought to light and how those lessons were integrated with the *Cook-it-Up!* program are discussed. The need for and application of a health promotion program model (i.e, the GMPP), the use of the PAR approach, and a theoretical-basis in self-efficacy are all discussed within the context of the *Cook-it-Up!* program.

In upcoming chapters, the detailed process of the development, implementation, and evaluation plan of *Cook It Up!* (Article 1) will be provided followed by the formative evaluation of this community-based cooking program for at-risk youth (Article 2). Lastly, the perceived facilitators and barriers at-risk youth experienced when applying the program-acquired cooking skills outside of their involvement in *Cook It Up!* will be presented (Article 3).

Figure 1. Generalized Model of Program Planning



Note. From “Planning, implementing, & evaluating health promotion programs: A primer” by J.F. McKenzie, B.L. Neiger, and R. Thackeray, 2009 (5thed.). Reprinted with permission of the publisher.

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CHAPTER II

Article 1 – *Cook It Up!* A Community-Based Cooking Program for At-Risk Youth:**Overview of a Food Literacy Intervention¹**

Poor dietary habits during adolescence (ages 13-18) have negative impacts on several health and wellness indicators including day-to-day wellbeing and functioning, achievement and maintenance of healthy weights, proper growth and development patterns, and dental health (Nappo-Dattoma, 2010; Ng, Young, & Corey, 2010; O’Loughlin & Tarasuk, 2003; Riediger, Shooshtari, & Moghadasian, 2007; Taylor, Evers, & McKenna, 2005; Veugelers, Fitzgerald, & Johnson, 2005). Researchers have found that when youth are involved in preparing food for meals, they are more likely to eat more nutritiously including higher intakes of fruits and vegetables, higher intakes of key nutrients, and lower intakes of fat (Anderson, Bell, Adamson, & Moynihan, 2001; Aumann et al., 1999; Brown & Hermann, 2005; Larson, Story, Eisenberg, & Neumark-Sztainer, 2006; Thonney & Bisogni, 2006; Wrieden et al., 2007). However, these studies assume youth have access to decent quality food within a family-style environment. Youth involvement in food-related tasks such as food shopping and preparation (Hebert & Jacobson, 1991; Skinner, Salvettin, & Penfield, 1984; Watt & Sheiham, 1996), especially when the priority population is at-risk youth in transition from the family home or foster care to independent living, is not a prevalent topic in scholarly journals.

¹ A version of this chapter has been published in BMC Research Notes

<http://www.biomedcentral.com/content/pdf/1756-0500-4-495.pdf> . A copyright release can be found in

Appendix C.

Additionally, it is challenging to find a comprehensive definition of at-risk youth. There is, however, agreement in the literature that “at-risk youth” can include characteristics such as: diverse racial backgrounds; negative influence from family, environment or peers; social factors that restrict healthy mental and social growth; limited financial resources; difficulty achieving optimal education; and behavioural issues (Dobizl, 2002; Moore, 2006; Sussman et al, 2010). Any and all of these characteristics can make it difficult for at-risk youth to become successful adults (Dobizl, 2002). These youth are particularly important to focus on with respect to research opportunities and interventions, given their increased potential vulnerability to experiencing negative social determinants of health (Public Health Agency of Canada, 2003) because they are impacted by challenges with regard to their social gradient, stress levels, early life experiences and exposures, social exclusion, limited social support systems, addiction, and food insecurity and/or quality (World Health Organization, 2003).

While an “official” definition for food literacy is not presented in the literature, it can be defined as the ability to make healthy food choices by having the skills and knowledge necessary to buy, grow, and cook food with implications for improving health (Begley & Gallegos, 2010; The Food Literacy Project, 2010). Cooking skills and food literacy, as they relate to health, knowledge and education, empowerment, engagement, culture, food security, and fun, are important for many reasons (Anderson, 2007; Lang & Caraher, 2001; Lang, Caraher, Dixon, & Carr-Hill, 1999; McLaughlin, Tarasuk, & Kreiger, 2006). Based on a thorough review of related literature, an engaging cooking skills program targeting at-risk youth has been proposed as important for building self-efficacy, food knowledge and literacy, self-confidence, and self-esteem, while potentially

improving the social determinants of health (Thomas & Irwin, in print). As such, cooking skills programs may be effective and important interventions for helping support the physical and psycho-social health of at-risk youth (Region of Waterloo Public Health, 2009).

Purpose

The purpose of this article is to outline the multi-step planning process for an 18-month theoretically-informed, Participatory Action Research (PAR) pilot cooking and food literacy program including its development, implementation, and formative evaluation plan, using the Generalized Model for Program Planning (GMPP; McKenzie, Neiger, & Thackeray, 2009) as the guiding framework. *Cook It Up!* was a community-based cooking program for at-risk youth implemented in May 2009 and concluding in November 2010 in London, Ontario.

Planning Framework and Theoretical Foundation for *Cook It Up!*

PAR can be defined as “a qualitative research inquiry in which the researcher and the participants collaborate at all levels in the research process [i.e., the participation component] to help find a suitable solution for a social problem that significantly affects an underserved community” (i.e., the action component) (Creswell, Hanson, Plano Clark, & Morales, 2007, p. 256). In *Cook It Up!*, the key participants were at-risk youth aged 13-18 years. Their input into the program development was integral to the shaping of the intervention. Youth were consulted at all stages of the program planning including: when the needs assessment was initiated; when the funding proposal was being written; when the content of the cooking sessions was being drafted; for input about fieldtrip locations; for feedback after cooking and fieldtrip sessions; and in the formative evaluation process. As such, at-risk youths’ experiences in the program became essential not only to provide

feedback to the investigators of the pilot project but for future considerations in the development, implementation, and evaluation of community-based food literacy programs for this population or others. Throughout Article 1, elements of PAR will be highlighted.

Utilizing the GMPP (McKenzie et al., 2009), this paper is intended to outline the specific process used to develop a logical and theoretically-informed intervention, while at the same time helping to facilitate the process of the development, implementation, and evaluation of similar cooking skills/food literacy programs by other program planners and researcher-practitioners. The GMPP outlines the common steps involved in health promotion planning: assessing needs; setting goals and objectives; developing the intervention; implementing it; and evaluating the intervention results (McKenzie et al., 2009). The GMPP was an integral tool utilized in the development of a funding proposal to the Ontario Agri-Food Education Inc. (OAFE) agency of the Ontario Ministry of Agriculture, Foods, and Rural Affairs. The GMPP shaped the content of the proposal which facilitated the grant writing process, as outlined by McKenzie and colleagues (2009). The OAFE required specific details about each step within the process included in the GMPP. This model provided the foundation for the planning, implementation, and evaluation of the *Cook It Up!* community-based cooking program for at-risk youth.

The GMPP allowed for the integration of the “Three Fs of Program Planning” (McKenzie et al., 2009, p. 18) within the *Cook It Up!* program, namely, *fluidity*, *flexibility*, and *functionality*. As fluidity suggests, the steps used to develop the *Cook It Up!* program were chronologically determined and built upon each other. The planning was adapted to the needs of the stakeholders, at-risk youth participants, as recommended by flexibility in program planning. Finally, as identified by functionality, the final result

is enhanced health rather than only the development of a program plan (McKenzie et al., 2009). The elements and application of the “Three Fs of Program Planning” (McKenzie et al., 2009) for the *Cook It Up!* program will be outlined further as this chapter unfolds.

Because of its correlation to many health-related behaviours and the literature-based assumption that the target population of at-risk youth may have food-related low levels of it, self-efficacy (Bandura, 1986) was chosen as the theoretical construct to be applied throughout the *Cook It Up!* pilot project. Self-efficacy can be defined as the judgment an individual has with respect to his/her capability to manage and execute tasks to progress toward achieving specific desired accomplishments (Bandura, 1986). Over the course of the pilot cooking and food literacy project, youth participants were provided with numerous opportunities to experience three of the four main ways through which self-efficacy improvements can be acquired. Specifically, self-efficacy enhancing opportunities were encouraged through performance attainments, vicarious experiences, and verbal persuasion (opportunities for interpreting emotional states were not overtly included) (Bandura, 1977). These programmatic opportunities are described more fully in the next section of this chapter, with specific examples at-risk youth experienced to help foster their attainment of heightened self-efficacy.

The GMPP (McKenzie et al., 2009), the “Three Fs of Program Planning” (McKenzie et al., 2009), construct of self-efficacy (Bandura, 1977), and the process of PAR (Kidd & Kral, 2005), were instrumental principles reflected through the various components of *Cook It Up!*. From the conception of the pilot project, proposal writing process and through to program planning, implementation, and formative evaluation,

these above-noted health promotion planning principles provided the guide for this food literacy intervention targeting vulnerable youth.

Overall Program Description of *Cook It Up!*

Cook It Up! was an 18-month community-based, theoretically-informed PAR cooking program for at-risk youth that focused on food education and literacy and cooking skills. The London Community Resource Centre (LCRC) was the host agency for *Cook It Up!* Locally, there were no other formally evaluated cooking programs for youth. As such, there was a need in this community to consider creating a pilot project focusing on planning, implementing, and evaluating a community-based cooking program for youth, as outlined in the GMPP (McKenzie et al., 2009). The following description outlines the application of each step within the GMPP to the current program and the utilization of the “Three Fs of Program Planning”, within the context of the PAR approach. As step one of the GMPP encourages (McKenzie et al., 2009), an informal needs assessment was conducted by the host agency for *Cook It Up!* by contacting local social service agencies that targeted at-risk youth for their programs and services and directly speaking to at-risk youth about the proposed intervention.

The GMPP indicated that goals and objectives must be set (i.e., step two) in order to create an effective program plan (McKenzie et al., 2009). There were several overall goals of the *Cook It Up!* program including: increasing education and awareness of agriculture, healthy eating, and food preparation and purchasing skills among this unique target population; increasing the impact and awareness of the benefits of the Ontario agricultural industry with key stakeholders and participants in the program; and creating and distributing a “how-to” manual highlighting all details necessary for implementation

of this project in other settings and with other target groups. With the erosion of cooking skills among youth (Anderson, 2007; Lai Yeung, 2007; Short, 2003), the overarching goal of this intervention was aimed at enhancing existing proficiency and building greater cooking competence and food literacy among this unique population. The primary objectives of *Cook It Up!* were to increase education and awareness of local agriculture, healthy eating, food preparation, and food purchasing skills among youth. This objective was accomplished by introducing youth to the local agri-food industry and building new and essential food literacy and life skills through cooking classes.

The next step (i.e., step three) in the GMPP (McKenzie et al., 2009) related to developing the intervention, which was the community-based cooking skills and food literacy pilot project. Due to the interactive process PAR allows for designing the program, the fourth step of the GMPP (implementing the intervention) overlapped with the design/development stage, and therefore, aspects of both steps will be discussed in this and the following paragraph. *Cook It Up!* provided youth-centred, hands-on food literacy education that highlighted general nutrition, food safety, selection, preparation, and cooking skills. Agriculture fieldtrips showcased seasonal Ontario-grown food commodities that provided an opportunity for participants to learn more about local food and food literacy. Guest chef facilitators targeted, coordinated, and implemented cooking and harvesting activities within each session. In step three of the GMPP (McKenzie et al., 2009), the LCRC hired a Program Coordinator who facilitated participant recruitment for the 18-month pilot project (participant recruitment described fully below). The Program Coordinator recruited 26 youth (13-18 years old) through local agencies (e.g., school boards, social service agencies, faith-based organizations, alternative schools, community

agencies with youth programming). Once the selected participants (n=8 for duration of the entire 18-month program) entered the program, the Program Coordinator and guest chefs facilitated 29 educational cooking sessions focusing on the four seasons and highlighting foods specifically available during those peak seasons. The cooking sessions occurred at a number of facilities in London, Ontario (e.g., the Middlesex-London Health Unit (MLHU), a restaurant, a catering company, and a faith-based organization). Using principles of youth engagement (Ministry of Health Promotion and Sport, 2010) and parameters of PAR (Greenwood, Whyte, & Harkavy, 1993), the participants worked with the Program Coordinator and local chefs to decide upon which foods and recipes to prepare, bearing in mind the local and seasonal availability of foods. Guest chefs built upon the youths' food literacy and cooking skills from one session to the next. This strategy reflected fluidity – one of the “Three Fs of Program Planning” – in that the steps in the planning process are established in a certain order and as such, build upon each other (see Purpose and Introduction; McKenzie et al., 2009). Effort was taken to build upon existing skills at each session to improve them. At each fieldtrip opportunity, the group created a shopping list of ingredients and purchased them at local farms, farmers' markets, or grocery store. Eleven field trips occurred at local farms using bus transportation paid for by the LCRC. Youth engagement was integrated to facilitate ongoing interest, commitment, and dedication to the pilot project, but also respected youths' feedback and suggestions which were used to help strengthen and shape the pilot project. Youth engagement also demonstrated flexibility – another construct in the Three Fs of Program Planning – in that the program planned was adjusted to meet participants' specific needs (McKenzie et al., 2009) (i.e., in this case, the youth participants). The

planning remained flexible throughout the intervention which allowed for changes to be made as the intervention unfolded. Functionality, the last F of the “Three Fs of Program Planning” (McKenzie et al., 2009), as applied to *Cook It Up!* means that the desirable outcome of the program planning in the current pilot project was food literacy and cooking skills attainment rather than just the program plan itself. The *Cook It Up!* program’s functionality provided the platform for the completion of a formative evaluation (Article 2) and Photovoice research study (step five of the GMPP; Article 3). Ethical approval for this study was granted by the Office of Research Ethics, University of Western Ontario (Appendix D).

Steering Committee selection. The Steering Committee (SC) was a necessary consideration to assist in successful program development. The funding agency required *Cook It Up!* to engage with new or non-traditional community partners with interest in promoting the local agri-food industry and the public health benefits of Ontario grown products. With this requirement in mind for program planning, key stakeholders were selected to direct the project.

In terms of the planning of the program, the implementation of a SC served to try to create clarity in the planning process (Gillmore & Campbell, 2005). The parameters of establishing the SC, as outlined by McKenzie and colleagues (2009), were followed. For instance, the SC for *Cook It Up!* was comprised of individuals representing diversity within subgroups of the priority population (at-risk youth). Specifically, the SC was comprised of 10 individuals and members included local chefs (for cooking skills education), local farmers (for the connection to local agri-food industry and fieldtrip opportunities), education specialists (for guidance about how to work with at-risk youth),

social service agency representatives focusing on the youth population (to assist in participant recruitment and youth engagement training), public health representatives (to assist in proposal writing, research, evaluation, and all nutritional and food safety aspects of the initiative), food service industry representatives (to provide opportunities for fieldtrips), academic representatives (to assist with research and evaluation), community members with interest and skills in this project and/or priority group (to ground the SC and check that the best interests of the participants and program goals were always prevalent), and a food specialty store owner (to provide business representation and program resources). Each member of the SC was determined through discussions between the lead agency (LCRC) and the key supporting agency (MLHU), who kept in mind the need to comprise the committee of individuals interested in program success, sponsorship, and function (McKenzie et al., 2009). The Executive Director of the LCRC recruited members to participate on the SC, created the terms of reference for the SC with input from its members, and was the Chairperson for the group. She was the logical choice for chairing the SC given this agency was the host for *Cook It Up!* and the Executive Director demonstrated knowledge, interest, creativity, and enthusiasm toward the success of the initiative (McKenzie et al., 2009).

Program Coordinator selection. Equally important to the SC recruitment was the recruitment and selection of the Program Coordinator. The Executive Director of the host agency for *Cook It Up!* met the Program Coordinator at a community meeting where food literacy was discussed. This individual was invited to serve in this capacity for *Cook It Up!* and was hired for this role because he had previously worked in the food service industry and shared a passion for local food, youth education, and cooking. His greatest

strength was his existing connections to local chefs, farms, and farmers' markets. The Program Coordinator's role was to engage and build rapport with local chefs, farmers, and farmers' markets to ensure broad and diverse opportunities for cooking sessions and fieldtrips. The Program Coordinator was hired on a part-time basis (20 hours/week) from May 2009 to December 2010 and his salary was paid from the funding secured for this project.

Recruitment principles for selecting chefs and volunteers. Two members of the SC (Program Coordinator and lead investigator) promoted the *Cook It Up!* program and its need for guest chef involvement using an in-person presentation at a local chefs' association meeting. Chefs in this association were provided an overview of the initiative and were encouraged to become involved in some capacity, either by providing a cooking demonstration and skill session with the youth or assisting with the SC in whatever capacity they chose. In addition to this method of chef recruitment and selection, the Program Coordinator developed a list of cooking skills that were identified by the SC as essential skills for participants in the program to acquire. Additionally, the Program Coordinator created a list of local farms in the region that showcased seasonal produce that could be used in recipes selected for the program. With these parameters identified, the Program Coordinator paired local chefs with particular interest and/or skill in certain cooking methods and recipes (e.g., pastry chef for apple pies, chef/owner of *The Only on King* restaurant for a signature summer and winter salad, chef/teacher who taught the at-risk youth restaurant-quality sauce recipes that were quick and easy to execute).

The SC had a strong connection to the University of Western Ontario and the Foods and Nutrition program at Brescia University College (BUC). One SC member, and

also a professor at BUC, promoted *Cook It Up!* volunteer opportunities with her students, four of whom became involved in the program as part of the community placement component of their course. These four students continued volunteering with *Cook It Up!* upon completion of their course because they became very engaged with the program and participants and wanted to continue contributing their time and expertise in a volunteer capacity. A Public Health Dietitian from the Middlesex-London Health Unit (MLHU; i.e., the lead investigator) supervised three master's-level students who participated as volunteers with *Cook It Up!* and also contributed to the development of a funding proposal, data collection, and program content development. The lead investigator spent significant time working with the master's-level students to ensure their work contributed significantly to the development and design of the program. This leadership was integral to the success of the intervention.

The SC members decided it would be important to recruit volunteers with a specific background working with at-risk youth. Organizing community members and volunteers, as outlined by McKenzie et al. (2009), was deemed necessary to garner support for the program. Using guidelines suggested by these authors, the SC recruited volunteers through known contacts (i.e., BUC, Youth Opportunities Unlimited staff, LCRC) and learned about the unique abilities of volunteers as well as their inherent limitations so as to match their skill set to the requirements outlined by the SC.

Specific and clearly outlined tasks were assigned to volunteers as was an informal volunteer job description highlighting their roles and responsibilities. For the student volunteers from BUC, training was provided and students received credit in their "Special Topics in Community Nutrition" course to recognize their participation and

involvement in the program. These recommendations helped the SC confirm that they had recruited dedicated and quality volunteers for the project, as recommended by McKenzie et al. (2009).

The SC recommended that volunteers with specific backgrounds working with at-risk youth be recruited to help with the project. One volunteer with the *Cook It Up!* program was a retired teacher who specialized in working with children with special needs. Her background, patience, problem-solving strategies, and general demeanor with the participants in *Cook It Up!* was deemed an ideal combination when working with youth who were easily distracted, demonstrated behavioural issues, and with whom were, at times, difficult to connect. Additionally, the SC recruited a teacher with expertise in secondary school family studies/food and nutrition curriculum as a volunteer. All volunteers' roles and responsibilities included: keeping the participants on track in terms of completing food preparation and cleaning tasks; helping participants navigate through the fieldtrip when independently completing assigned tasks (e.g., collecting produce from the field such as apple picking, grocery shopping, and reviewing the steps required in recipes); assisting the participants in the completion of their weekly "journals," which summarized the youths' weekly involvement in the cooking sessions and fieldtrips; monitoring safety issues in the kitchen; reminding participants to be safe, clean, and organized; and assisting the Program Coordinator or guest chefs in any way required. The volunteers recruited expressed excitement about the program; however, some had never worked with at-risk youth in the past. For this reason, it was necessary to implement sensitivity training. One of the members of the SC was engaged to facilitate sensitivity training for all volunteers. The volunteers with *Cook It Up!* were key members of the

program staff. This sentiment has been underscored by El Ansari and Phillips (2001) who proclaimed that citizen volunteers can serve as essential resources for helping the program in question reach its goals while at the same time mobilizing the community and its members' intrinsic strengths.

Participant recruitment and selection. The *Cook It Up!* program involved significant time and participation commitment; therefore, the SC hoped to attract up to 12 committed youth participants for this pilot project who were fully committed to the program. To recruit potential at-risk youth participants, the SC utilized local media outlets to introduce the program to the community. Key SC members (i.e., the lead investigator and representative of the MLHU and Executive Director of the LCRC) were interviewed in local newspapers and on television programs. The initiative was also promoted on local agencies' websites, on social media outlets such as Facebook® and YouTube®, and via word-of-mouth primarily by SC members working with at-risk youth. Youth workers were provided a description of "at-risk" in the context of this dissertation and subsequently identified and recruited suitable youth for the program. The Program Coordinator and lead investigator were successful in recruiting 26 youth (13-18 years old) through local agencies (e.g., school boards; social service agencies; faith-based organizations; alternative schools; community agencies with youth programming). Interested parties in contact with SC members or other community partners involved in the project were directed to the LCRC's website to learn more about the program. At-risk youth who had interest in applying to the program by completing a paper-and-pencil or online low-literacy application form which included a description of why they were interested in learning about cooking, working with local chefs and farmers to improve

their food literacy and cooking skills. The low literacy paper-and-pencil and application were informed by guidelines from Burke and Greenberg (2010) to ensure the possible limitations of the reading ability of potential participants were respected. If the potential participant had difficulty completing the application form, assistance was provided by community partners who promoted the program to the youth. For example, community partners sat with the youth while they were completing either the paper-and-pencil form or the online version, and helped the youth by reading the questions and assisting them with constructing their answers.

In addition to the application form completion, all interested youth applying to the program met with three members of the SC who conducted informal interviews with the youth to describe the program, gauge youths' interest, and to assess participant-program suitability prior to enrolment in the program. This proved to be an effective recruitment and retention strategy. Originally, 26 youth applied to the program, but through self-selection out of the program due to a variety of different reasons (i.e., time commitment, program components, and conflicts with other activities), the final number of participants in *Cook It Up!* was nine. The SC was satisfied with this number as they were originally aiming for a maximum of 12 participants. There was attrition of one participant due to personal issues. The other eight participants remained for the entire duration of the program (18 months).

Rationale for pilot program size. At times, at-risk youth in the program presented with a variety of behavioural problems which negatively influenced the learning environment, as literature suggested would be the case (Sullivan, Childs, & O'Connell, 2009). It was anecdotally reported that this negative behaviour increased

frustration among volunteers, chefs, and other participants. In these circumstances, volunteers used their sensitivity training to mediate the situation, reduce frustration, and keep the program on track. In each cooking and fieldtrip session, there were eight participants, a minimum of four volunteers, the Program Coordinator, a chef from the SC, and a guest chef. For logistical reasons (i.e., transportation, costs, and youth supervision requirements), a maximum of 15 people including participants, the Program Coordinator, chef(s) and volunteers, was desirable for this program; logistics of program operation as well as facility limitations would not allow for larger group sizes. Careful consideration of the priority group selected and their unique needs determined the number and expertise of volunteers needed at each session.

Program cost. There was no cost to participate in the *Cook It Up!* program. Costs associated with the operation of the program including food, transportation to cooking sessions and fieldtrip locations, basic kitchen equipment for youth (provided to them at the end of the program), and other incidental fees were included in the grant budget and additional funding secured for the project.

Cooking component. The cooking sessions took place at a centrally located faith-based organization with excellent kitchen facilities approved by the MLHU. To receive approval, this food premise was inspected by a certified Public Health Inspector who ensured the facility met all requirements outlined by the Health Promotion and Protection Act (Service Ontario, 2008). This approval process was important because the MLHU strongly recommended that hazardous foods, specifically foods that support rapid bacterial growth, (e.g., foods high in protein such as meats, poultry, seafood, eggs, dairy products, cooked vegetables such as beans, and cooked cereal grains such as rice) "be

prepared in an approved kitchen and not in home kitchens to reduce the risk of foodborne illness” (Middlesex-London Health Unit, 2007). The Minister of the faith-based organization was amenable to having the *Cook It Up!* program utilize these facilities and an invaluable partnership was developed.

Youth participants attended *Cook It Up!* for cooking sessions twice monthly from August 2009 to November 2010 on Mondays between 4:00 pm and 6:00 pm. During the program, youth engaged in a variety of cooking opportunities focusing on seasonal and local food ingredients and the sessions were facilitated by local chefs. Attendance records indicated that nearly all (7 of 8) or all participants (n=8) attended each cooking session. Each session consisted of the Program Coordinator outlining the recipe for the session and introducing the guest chef who would be working with the youth. The chef taught participants skills necessary to complete the selected recipes. The session components were designed to help facilitate opportunities for engaging in vicarious experiences and successful task mastery, which are two methods Bandura (1977) proposed to help increase self-efficacy. Specifically, each session featured an overview of the historical context of the foods chosen to create the recipe in service of educating the youth about the origins of foods. The guest chef then showed participants how to make the dish (therefore, providing vicarious experience). A variety of recipes was introduced but effort was taken to ensure that the skills required to perform the execution of each recipe also incorporated skills that had been used previously, thus building upon the youths’ development of their cooking proficiency from week to week (therefore, helping to facilitate their task mastery) (Bandura, 1977). Throughout all cooking sessions, the program staff/volunteers were mindful of providing encouraging and constructive

feedback to the youth with the intent of further helping to facilitate enhancements in their self-efficacy via Bandura's (1977) description of verbal persuasion.

Fieldtrip component. The participants engaged in fieldtrips to local farms and farmers' markets once monthly. Fieldtrips were selected by the Program Coordinator in agreement with the SC with the purpose of connecting the youth to their cooking experiences by seeing how local food grows on farms and having the opportunity to harvest this food. For example, specific farms growing particular commodities were selected because their produce could complement the recipes well. For example, in the spring, a trip to a local sugar bush to learn how maple syrup was made complemented the cooking session on pancakes. A fall fieldtrip to a local dwarf apple tree orchard led to recipes for applesauce, apple pie, apple crisp, and homemade pie crust.

In addition to "food" related fieldtrips, other fieldtrips were provided. An opportunity to expand the participants' appreciation for formal culinary education came from a fieldtrip to the local community college where youth were introduced to the college-level culinary program. Participants were invited to observe a food demonstration in the test kitchen, learn about the culinary programs available at the post-secondary institute, and speak to the first year Coordinator of Chef Training and Culinary Management in the School of Tourism and Hospitality. This fieldtrip inspired some of the youth to consider post-secondary school education in this field as a future academic goal; at the conclusion of this fieldtrip, half of the participants individually approached the lead investigator and Program Coordinator and anecdotally indicated that they wanted to explore post-secondary school education in culinary arts as a result of attending this fieldtrip.

There were two additional opportunities that were presented to the *Cook It Up!* program throughout the duration of the intervention that allowed for the further development of participants' cooking skills and food literacy. First, the lead investigator was asked by a community group and if the *Cook It Up!* group would cater the inauguration of a neighbourhood community centre. After consulting the participants who expressed a keen interest in doing so, the lead investigator made the arrangements. The group, with assistance from the Program Coordinator and a guest chef, decided upon recipes, prepared and served the food, and enjoyed the rewards of positive feedback from the 100 guests who attended. The second event was another catering opportunity for a local youth club during National Youth Week. Again, the participants organized, prepared, and served recipes they had previously made to approximately 50 guests. Both opportunities allowed the youth to perform the tasks required with confidence and enthusiasm. These events were deemed important opportunities for further facilitating participants' task mastery experiences (i.e., their success was leading to more success).

For all cooking components and fieldtrip activities of *Cook It Up!*, participants were included in the development of the session, thus encouraging their engagement and participation. Youth engagement and participatory action were important approaches implemented in *Cook It Up!* and were incorporated to try to ensure that the intervention was meeting the needs of the participants at all times (Kidd & Kral, 2005; Ministry of Health Promotion and Sport, 2010).

***Cook It Up!* Program Evaluation Plan**

A three-fold evaluation plan for *Cook It Up!* was designed to obtain information about the program overall. First, a pre/post cooking skills assessment questionnaire was

used to monitor at-risk youth participants' progress and allow for a baseline comparison (Article 2). This design also provided preliminary evidence for the future development of cooking skills assessment for at-risk youth. Additionally, qualitative interviews were undertaken to determine the effectiveness of the program from the perspective of the participants involved (e.g., SC members, guest chefs, volunteers, parents/guardians, and youth) (Article 2). Finally, Photovoice methodology (Wang & Burris, 1997) was introduced to determine the at-risk youths' perceptions of the barriers and facilitators of their cooking skills application external to the *Cook It Up!* program (Article 3).

Formative Evaluation Design

A formative evaluation was implemented to assess the *Cook It Up!* program to determine its value from the perspective of participants, as well as what could be done to assess all aspects of the program (Green & Kreuter, 2005). The formative evaluation (Article 2, Article 3) appraised the education and skill building initiative focusing on nutrition, food safety, food preparation and cooking skills, and agriculture fieldtrip experiences to a variety of local farms. The research qualitatively assessed participants' (e.g., youth community partners', and parents'/guardians') experiences with *Cook It Up!* over its 18-month duration. The objectives of the formative evaluation were three-fold. First, the evaluation assessed the strengths and weaknesses of the program and its delivery. Secondly, we anticipated uncovering obstacles, barriers or unexpected opportunities that made the program more effective. Finally, this evaluation generated understandings about how the program content and implementation could be improved. Verbal informed consent was received from all research participants. A purposeful sample of participants was sought for the in-depth interviews to maximize the richness of

information obtained pertinent to the research question. Interviewing continued until interpretation of the interviews revealed no new significant insights, thus attaining data saturation. It was estimated that between 10 and 20 in-depth interviews would be necessary before data saturation was realized (Miller & Crabtree, 2004). A total of 25 participants were interviewed for the formative evaluation. There was excellent response by participants to assist with the research; therefore, the lead investigator allowed all interested participants to contribute. Saturation was reached at 19 interviews. Six additional interviews were conducted to ensure nothing was missed and to accommodate participants willing to support the research. The research facilitated the development of a “how-to” community resource manual available for local and provincial distribution (Appendix A). The manual was pre-determined as a “deliverable” to the main funding agency of the project (Ontario Agri-Food Education, Inc.). Full details of the formative evaluation in Article 2 are provided in the next chapter of this dissertation.

The final research project for *Cook It Up!* was a Photovoice project (Article 3) which qualitatively assessed the barriers and facilitators youth participants experienced with respect to the application of healthy cooking skills in their environments peripheral to the *Cook It Up!* program (i.e., in essence, this project attempted to gain some understanding of how transferable and externally valid the lessons learned within the program could be to their experiences in the “outside” world). Photovoice is a qualitative research method in which still picture cameras are used to document participants’ health and community realities (Wang & Redwood-Jones, 2001). This unique approach combines grassroots social action with the creative expression of photographs (Wang, Yi, Tao, & Carovano, 1998) to respond to the research question by constructing and

discussing the photographs taken as a means of inspiring personal and community change (Wilson, Minkler, Dasho, Wallerstein, & Martin, 2008). Participants were given disposable cameras and were instructed about their proper use, photo-taking parameters, ethical issues surrounding picture taking, and the rights and responsibilities of the at-risk youth participants (as photographers) when taking pictures (Table 1) (Photovoice Hamilton Ontario, 2007; Wang, 1999; Wang & Redwood-Jones, 2001). Participants also took part in a discussion group to dialogue about the photographs taken and select the ones that best exemplified their perceived barriers and facilitators to the progression of their cooking skills. Upon completion of the project, participants were invited to share their photographs at a local art display/gallery for the purpose of showcasing their work and involvement in the project. For all research components of *Cook It Up!*, ethical approval was obtained from the Office of Research Ethics at the University of Western Ontario (Appendix G). Full details of Article 3 are provided in the fourth chapter of this dissertation.

Discussion

North Americans' eating and meal preparation culture is changing; domestic cooking skills are in a state of erosion, or at the very least are in transition, such that the types of foods people cook, or in some cases "reheat", how they use food preparation skills, and where they cook are influenced by social, economic, and cultural contexts (Caraher, Dixon, Lang, & Carr-Hill, 1999). In most provinces in Canada, cooking skills are not taught in elementary schools and are taught much less in households today compared to the past (Bowers, 2000; Canadian Grocer, 2000). Some researchers contend that domestic food preparation appears to be less relevant to children and youth and there

may exist, a ‘de-skilling’ of cooking resulting from the lack of introduction and opportunity to acquire cooking skills from parents, grandparents, or within school environments (Short, 2003). The limited awareness of food literacy, cooking skills, and knowledge about how foods are grown and harvested can create barriers to consuming a healthy diet (Lang & Caraher, 2001). The *Cook It Up!* program described in this chapter was designed to provide at-risk youth the opportunity to learn and acquire cooking skills and food literacy from food professionals with a passion for local food.

Studies have demonstrated that hands-on cooking education has a positive impact on behaviours and attitudes toward cooking and healthy eating such as increased consumption of fruits and vegetables, improved food safety behaviours, higher frequency of cooking, increased nutrition knowledge, higher self-efficacy, and less money spent on food (Crawford, Ball, Mishra, Salmon, & Timperio, 2007; Cullen, Watson, Zakeri, Baronowski, & Baronowski, 2007; Larson, Perry, Story, & Neumark-Sztainer, 2006a; Larson et al., 2006b; Meehan, Yeh, & Spark, 2008; Shankar & Klassen, 2001; Stitt, 1996; Stockley, 2009). Nutritional intake during the adolescent years impacts physical health, risk of future disease, and bodyweight (Larson et al., 2006). However, there are few studies examining the food preparation and cooking skills of youth, especially at-risk youth. There are also few studies examining youths’ understanding of the local agri-food industry and how it relates to their ability to select, prepare, cook, store, and enjoy foods prepared from “scratch.”

Cooking programs for youth with a focus on the local agri-food industry are an integral component of food literacy development to facilitate healthy lifestyles in this population. The lead investigator with support from the LCRC promoted nutrition and

healthy eating of Ontario products through the planning, implementation, and formative evaluation of the *Cook It Up!* program with funding from the Ontario Agri-Food Education Inc. With the removal of food and cooking skills syllabi from school systems, there are limited opportunities for youth to learn and apply basic life- and food-related skills such as proper food selection, preparation, storage, and usage. Interventions that promote and foster cooking skills development targeting youth are needed. The *Cook It Up!* program provided a unique intervention that introduced urban at-risk youth to the local agri-food industry to provide opportunities to improve food literacy and cooking skills in a population that is already at a greater risk of experiencing challenges.

This manuscript provided detailed description of the multi-step planning process for an 18-month theoretically-informed, PAR pilot cooking and food literacy program including its development, implementation, and formative evaluation plan, using the GMPP as the guiding framework. Other practitioners who want to create a similar program with their populations can use this description to build upon our work rather than creating an entire intervention from the ground up. It is through the sharing of this type of programmatic information that researchers-practitioners can co-create programs that will ultimately facilitate healthier food- related options among those in need.

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Table 1

Ethical Issues Related to Photovoice and Rights and Responsibilities of PV Participants

The purpose of discussing ethical issues is to reduce the risks to the photographer as well as to their subjects.

Invasion of Privacy:

- Taking someone's photograph without his/her permission is a violation of privacy. Even if the person does not mind that you took his/her picture, when you do not ask permission, you may cause that individual to become upset and you could be put into a difficult situation as a result.
- If the photographer believes there may be a loss of naturalness or spontaneity if permission is asked, the photographer must learn to be patient. Many professional photographers spend most of their time behind a camera just waiting for the perfect shot.
- After obtaining permission from the human subject you wish to photograph, wait until he/she has forgotten you are there, until they slip back into what they were doing. You will be able to get the photograph you want, but you need to first get permission to take that picture and then you must wait for it the perfect moment to snap the photograph.
- Asking for someone's permission to photograph him/her is a way to build his/her trust. It will also give you, as the photographer, the opportunity to discuss what you are doing and explain the *Cook It Up!* Photovoice research project with your human subject again.
- As a general rule, the photographer is not required to receive a signature when taking a picture of a group of people where individual faces are not recognizable or if the photographer is taking a photo of something and a person just happens to walk into the shot at the last moment.
- Some people may not want their photograph taken, and will have their own reasons for this. People sometimes feel protective of their communities and as such, may not want their photograph taken in their community.

Representing communities and their members:

- Taking a photo of someone doing something risky or incriminating would go against the values and goals of Photovoice.
- Photographers will also be asked to write a story to display along with each photo.
- It is important that photographers ask themselves if the subject would agree with the photo taken and with the text written to accompany the photo. You are making a photographic suggestion as the photographer. Any human subject in your photos must agree with this suggestion. Remember that the subjects are vulnerable to the image, even if they give permission to be photographed.
- Using a camera gives the photographer a lot of power to create a message that is visually loaded with meaning. Within the image is the photographer's values and

message as well as the values and messages the viewers of the photographs will take away with them. Therefore, it is important to represent the image and the subjects within the image in an accurate and respectful way.

- Photovoice is an exciting way to share with others how you feel about what makes it easier or more difficult to develop cooking skills. You have the opportunity to get really creative, but in a respectful and ethical way.

Rights and Responsibilities of Photovoice Participants

As a participant in the *Cook It Up!* Photovoice Research Project, you have the following rights and responsibilities:

Rights:

- You have the right to express your views and experiences during the discussion group sessions.
- You have the right to be supported by the Photovoice group members and facilitators of the discussion group sessions.
- You have the right to choose the photographs you would like to display in public.
- You have the right to change your mind about displaying any of your photographs.

Responsibilities:

- We will do our best to start the sessions on time, so we can finish on time. Please do your best to arrive on time.
- Please contact the discussion group facilitator or assistant moderator if you cannot make it to a session.
- Be positive to your peers. Please avoid putdowns or criticism.
- Since everyone has something important to say, only one person speaks at a time.
- You have the responsibility to ask human subjects if they will consent to be in a photograph before taking the photo.
- You have the responsibility to ask the owner of personal property (e.g., someone's house) permission before taking a photo of someone's personal property.
- You have the responsibility to be respectful when working with human subjects.
- You have the responsibility to use a buddy system, especially when taking photos in places you are not familiar with.
- You have the responsibility to NOT do something you usually would not do.
- You have the responsibility to NOT go somewhere you usually would not go.
- You have the responsibility to be aware of your surroundings.

Note: From Photovoice Hamilton (<http://photovoice.ca/manual.pdf>)

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CHAPTER III

Article 2 – *Cook It Up!*: Formative Evaluation of a Community-Based Cooking Program For At-Risk Youth in London, Ontario²

Youth with disadvantaged social determinants of health such as having lower socio-economic status (SES) combined with unstable home lives, are at a higher risk of consuming an unhealthy diet compared to youth in stable family relationships (Anderson, Bell, Adamson, & Moynihan, 2001). For the purpose of this study, the term “at-risk youth” refers to adolescents aged 13-18 years old whose SES and/or living arrangements puts them at increased risk for a variety of physical and psycho-social issues including poor nutrition (World Health Organization, 2002). Other characteristics of at-risk youth can include diverse racial backgrounds; negative influence from family, environment or peers; social factors that restrict healthy mental and social growth; limited financial resources; difficulty achieving optimal education; and behavioural issues (Dobizl, 2002; Moore, 2006; Sussman et al., 2010). At-risk youth may also experience challenges such as addiction and homelessness (Hadland, Kerr, Li, Montaner, & Wood, 2009; Rachlis, Wood, Zhang, Montaner, & Kerr, 2009).

Addressing at-risk youth by implementing a food literacy and cooking skills development program may facilitate the development of hands-on learning to enhance social determinants of health (i.e., social support, food, employment, education) in a positive way through addressing behavioural factors like the quality of dietary choices. As such, a food literacy program may enhance and strengthen at-risk youths’ food culture for health “to foster [their] knowledge of food and nutrition, cooking skills, growing

² A version of this chapter is under review in the International Journal of Home Economics.

food, and the social value of preparing food and eating together” (World Health Organization, 2003, p. 27).

The provision of a hands-on, practical life skills program in service of building food-related self-efficacy, knowledge, and self-confidence is an important and unique intervention for at-risk youth (Thomas & Irwin, in print). According to Bandura (1977), one’s perceived ability to perform behaviours, that is, self-efficacy, is enhanced when one has the practical and necessary skills for completion of the task and/or behaviour. *Cook It Up!* was a community-based cooking program targeting at-risk youth and designed to provide participants with food literacy and cooking skills. This program also included opportunities for at-risk youth to enhance their self-efficacy. Of the four main sources of self-efficacy: mastery experiences, social modeling, social persuasion, and psychological responses (Bandura, 1994), three were embedded within the *Cook It Up!* program (mastery experience, social modeling, and social persuasion). Offering the program is only the first step; without knowing participants’ receptiveness to and experiences with the program it is hard to know whether it should continue, be expanded, or if it has any unanticipated negative effects. Therefore, the purpose of this formative evaluation was to gain an understanding of participants’ experiences with the pilot offering of the *Cook It Up!* program, where participants include the at-risk youth, community partners, and parents/guardians. A formative evaluation is the ideal type of evaluation to conduct when a program is relatively new and program planners want to know which aspects of the program are practicable, suitable, important, and satisfactory to the program’s target population (Tobacco Technical Assistance Consortium, 2011). As Patton (2002) and Green and Kreuter (2005) noted, formative evaluations are particularly helpful for finding

out what is working well with the program, how to improve and shape the program, and also to identify what needs to be done to make it optimally effective for its target audience. The desired results of a formative evaluation are suggestions for enhancing the program or activity (Patton, 2002). Therefore, this study was conducted in concert with the piloted administration of *Cook It Up!* and was used to assess the suitability of all components of the program including how it was planned, implemented, and evaluated (Green & Kreuter, 2005).

In this study, we assessed the feasibility and utility of the *Cook It Up!* program through the evaluation of a food literacy and skill building intervention focusing on nutrition education, food safety, food preparation and cooking skills, and agriculture fieldtrip experiences to a variety of local farms and farmers' markets. Specifically, this research qualitatively assessed participants' (i.e., at-risk youth, community partners', and parents'/guardians') experiences with *Cook It Up!* throughout the duration of the program. The at-risk youth participants were able to share feedback about their direct involvement in the program. The community partners (i.e., Program Coordinator, Steering Committee members, fieldtrip operators, guest chefs, volunteers) contributed to the research by sharing their experiences with the organizational processes and logistics of implementing the program components. Finally, the parents/guardians had an interesting "outsider" perspective and were able to share their perceptions of the impact of *Cook It Up!* on their children. Also, although this study did not lend itself to a quantitative analysis, we wanted to gain some idea of the program's impact on participants' food literacy and self-efficacy, and therefore implemented a simple, self-

reported tool (pre-post) to assess each. A brief description of the *Cook It Up!* program is provided for context prior to the description of the methodology for the current study.

Program Description

Cook It Up! was a community-based cooking program targeting at-risk youth in London, Ontario. This program focused on teaching vulnerable youth essential cooking skills and food literacy by introducing them to the local agri-food industry through fieldtrips to local farms and farmers' markets. The overall purpose of the program was to enhance food literacy and cooking skills among this unique population. The London Community Resource Centre (the lead agency for *Cook It Up!*) hired a Project Coordinator who facilitated participant recruitment for the 18-month pilot project. Using principles of youth engagement (Ministry of Health Promotion and Sport, 2011) and Participatory Action Research (PAR; Kidd & Kral, 2005), the participants worked with the Project Coordinator and local guest chefs to decide upon which foods and recipes to prepare, bearing in mind the local availability of foods and where these foods could be purchase at local farms. Guest chefs from local restaurants and other food service outlets facilitated 29 educational cooking sessions focusing on local foods that were seasonally available. Eleven fieldtrips to local farms and farmers' markets also occurred. Ethical approval for this study was granted by the Office of Research Ethics at The University of Western Ontario (Appendix D). A detailed, comprehensive description of *Cook It Up!* appears in Article 1 (Chapter 2) of this dissertation.

Purpose

The objectives of this formative evaluation were three-fold. First, this evaluation assessed the strengths and weaknesses of the program and its delivery. Secondly, we

uncovered obstacles, barriers or unexpected opportunities that could make the program more effective. Finally, this formative evaluation generated understandings about how the program content and implementation could be improved. As a deliverable, the research facilitated the development of a “how-to” community resource manual available for local and provincial distribution (Appendix A). In addition to the qualitative component of this study, a demographic survey was administered and included an assessment of self-reported food skills, food literacy, and self-efficacy (pre- and post-test questionnaires; Appendix E). Results from the quantitative data are reported in Tables 1, 2, and 3.

Methodology

Youth, community partners (i.e., Steering Committee members, guest chefs, fieldtrip operators, and volunteers), and parents/guardians who participated in the program in any capacity were targeted for inclusion in this study. All eligible participants were invited to participate in the formative evaluation research through direct personal and/or telephone contact with the lead investigator and/or Program Coordinator of *Cook It Up!* The lead investigator and Program Coordinator explained the purpose of the formative evaluation, answered questions about the research, and provided all potential participants with the letter of information (Appendix B) outlining the purpose of the formative evaluation and research parameters. In keeping with the principles of PAR, the selection of participants for the formative evaluation was inclusive, such that any at-risk youth participant, community partner, and parent/guardian who expressed interest in being involved in the formative evaluation was welcome to do so (Patton, 2002). Twenty-five participants (i.e., at-risk youth, community partners, and parents/guardians) participated in the in-depth interviews, which took place immediately following the

Table 1

Demographic Characteristics of At-Risk Youth in Cook it Up!

Demographics	<i>N</i>	%
Sex		
Male	3	60
Female	2	40
Age		
13	1	20
14	1	20
15	2	40
16	1	20
Ethnicity		
White	3	60
Black	1	20
White/Black mix	1	20
Family Structure		
Double parent family	3	60
Parent and step-parent	1	20
Single parent	1	20
Employed		
Yes	1	20
No	4	80
Grade		
8	1	20
9	1	20
10	2	40
11	1	40

Table 2

Self-Reported Food Skills Rating for Pre- and Post-Test Questionnaire

Food Skill	Pre-Test Results		Post-Test Results	
	Very Good Skill + Good Skill <i>N (%)</i>	Basic Skill + Very Limited/No Skill <i>N (%)</i>	Very good Skill + Good Skill <i>N (%)</i>	Basic Skill + Very Limited/No Skill <i>N (%)</i>
Using a knife safely	3 (60)	2 (40)	5 (100)	0 (0)
Peeling, chopping, slicing vegetables or fruit	3 (60)	2 (40)	5 (100)	0 (0)
Cooking a piece of raw or frozen meat/chicken/fish (not processed)	4 (80)	1 (20)	4 (80)	1 (20)
Cooking a soup, stew, casserole using a pre-packaged mix	4 (80)	1 (20)	4 (80)	1 (20)
Cooking a soup, stew, casserole from “scratch”	2 (40)	3 (60)	3 (60)	2 (40)
Choosing a spice or herb that goes well with the food being cooked	2 (40)	3 (60)	4 (80)	1 (20)
Adjusting a recipe to make it healthier	2 (40)	3 (60)	2 (40)	3 (60)

Food Skill	Pre-Test Results		Post-Test Results	
	Very Good Skill + Good Skill <i>N (%)</i>	Basic Skill + Very Limited/No Skill <i>N (%)</i>	Very good Skill + Good Skill <i>N (%)</i>	Basic Skill + Very Limited/No Skill <i>N (%)</i>
Baking muffins or cake “from scratch”	4 (80)	1 (20)	4 (80)	1 (20)
Baking muffins or cake using a pre-packaged mix	4 (80)	1 (20)	2 (40)	3 (60)
Planning a quick, healthy meals using only the foods already at home	2 (40)	3 (60)	2 (40)	3 (60)
Freezing vegetables or fruit from raw to bagged in a home freezer	2 (40)	3 (60)	2 (40)	3 (60)
Canning fruit or salsa from raw ingredients to finished products in sealed glass jars	1 (20)	4 (80)	3 (60)	2 (40)

Table 3

Self-Reported Self-Efficacy with Respect to Food Literacy and Cooking Skills

	Pre-Test Results	Post-Test Results
	<i>N</i> (%)	<i>N</i> (%)
Food Skill Identified		
Preparing foods at home at least partly from “scratch”		
I know I can	2 (40)	4 (80)
I think I can	3 (60)	1 (20)
I’m not sure I can	0 (0)	0 (0)
I know I can’t	0 (0)	0 (0)
I don’t know	0 (0)	0 (0)
Knowledge of what “local foods” means		
I know what it means	4 (80)	4 (80)
I think I know what it means	1 (20)	1 (20)
I’m not sure I know what it means	0 (0)	0 (0)
I don’t know what it means	0 (0)	0 (0)

conclusion of the *Cook-it-Up!* program, and lasted approximately one hour. All interviews were audio-recorded and transcribed verbatim. Only the youth participants completed the demographic form and the pre-post assessments pertaining to their cooking and food literacy skills, and their cooking- and food-related self-efficacy (the pre-assessment was implemented during the second program session, the post assessment was implemented immediately following the conclusion of *Cook-it-Up!* during the in-depth interview; Appendix E). The pre-post assessments were implemented orally to accommodate literacy challenges.

Specific Process of the Formative Evaluation

The in-depth interviews were conducted at the Boys and Girls Club of London, the Middlesex-London Health Unit, or another convenient and private community location as mutually decided and agreed upon by the participant and research team (e.g., local library, local community college, guest chef's restaurant, high school). The individual agreeing to participate in the formative evaluation was greeted by the lead investigator who provided him/her with another copy of the Letter of Information (Appendix B) and re-explained the nature of the in-depth interview and research purpose. Participants who agreed to partake in the interviews were deemed to have consented to the research. All potential participants were told their participation was voluntary, that they could refuse to answer any questions and that they could ask to stop the recording at anytime during the interview. As noted above, in-depth interviews lasted approximately one hour and were audio-recorded and transcribed verbatim.

In-depth interviews were completed with a total of 25 participants (3 guest chefs, 5 Steering Committee members, 3 fieldtrip operators, 6 volunteers, 3 parents/guardians,

and 5 at-risk youth participants). Saturation of the data occurred at 19 interviews; however, using principles of PAR (Kidd & Kral, 2005), the research team felt it was important to conduct interviews with *all* interested participants in order to maintain inclusiveness while furthering the opportunity to obtain rich, contextual data about *Cook It Up!*. The interviewer (H. Thomas) was not close with any of the participants involved in the formative evaluation; therefore, social desirability was not of concern. A semi-structured interview guide (Appendix F) was used to facilitate the in-depth interviews. Examples of questions from the semi-structured interview guides for at-risk youth, community partners, and parents/guardians appear in Table 4.

Data Analysis Procedure

Upon completion of data collection, simple descriptive statistics were conducted on the pre-post assessments, and inductive content analysis as described by Patton (2002) was utilized to analyze, code, and categorize emerging themes for the qualitative data. QSR NVivo 8 (QSR International, 2008) software was used to help code and categorize emerging themes. All themes were presented as group findings in order to keep confidentiality of identities intact. Several strategies, as outlined by Guba and Lincoln (1989), were employed to ensure the trustworthiness of the findings, and these strategies included member-checking, peer-debriefing, and using multiple coders. Table 5 summarizes measures used to facilitate data trustworthiness.

Table 4

Example Questions from Semi-Structured Interview Guides for At-Risk Youth,

Community Partners, and Parents/Guardians

Youth	<ul style="list-style-type: none"> • What did you like best or value most about the cooking program? Why? • What did you like least or value least about the cooking program? Why? • If you could change anything about the program, what would it be? • What is different for you since being in the <i>Cook It Up!</i> program? What, if anything, is different about how you're eating? What, if anything, is different about where you're purchasing? • What recommendations would you make to improve this program so it could be adapted to other target groups in other communities?
Community Partners	<ul style="list-style-type: none"> • Why did you become involved in the <i>Cook It Up!</i> program? • How effective was the Steering Committee in meeting its objectives for this project? Please say more? • What recommendations would you make to improve this program? • How could this program be adapted to other target groups in other communities?
Parent/Guardians	<ul style="list-style-type: none"> • Why do you think your child wanted to participate in the cooking program? • What do you think your child liked best or value most about the cooking program? Why? • What did you like best or value most about the cooking program? Why? • Why was it good for your child to be a part of Cook it Up! What did you gain from the program? • In what ways could the cooking program be improved? If you could change anything about the program, what would it be? • What is different for you since your child was involved in the <i>Cook It Up!</i> program? What, if anything, is different about how you and your family are eating? What, if anything, is different about where you're purchasing food?

Table 5

Measures to Facilitate Data Trustworthiness

Credibility	Member-checking was used between each question and at the end of the interview to ensure the responses from participants were correctly understood and recorded by the researcher. The lead investigator told the participants how she understood their responses before going to the next question in the interview guide.
Dependability	Following the interview, the lead investigator and a member of the research team met to debrief and summarize the interview. A colleague not involved in this study was also asked to participate in peer-debriefing meetings with the researchers after the interviews. Detailed notes from this discussion were recorded and potential biases were identified, documented, and discussed to make sure these biases would not affect the data analysis. Detailed notes also provided an audit trail. During the data analysis, the lead investigator also engaged in reflexivity to help keep any personal biases in check.
Confirmability	Inductive content analysis was performed independently and simultaneously by two researchers with experience in qualitative research. Findings were triangulated and subsequently, analyses compared. Data were examined for similarities and differences and the research team highlighted emerging themes. Another member of the research team reviewed the data and engaged in peer debriefing with the research team to ensure that any of the researcher's biases that were taken for granted have been revealed. Additionally, through this process, the researcher can become aware of her position toward the data and its analysis.
Transferability	The entire research process has been documented in detail to will allow other researchers to determine if the context and findings from this study are transferable to their contexts and settings.

Note. Adapted from "Preschoolers' physical activity behaviours: Parents' perspectives,"

by J.D. Irwin, M. He, L.M. Sangster Bouck, P.Tucker, & G.L. Pollett, 2005, *Canadian Journal of Public Health*, 96(4), 299-303.

Findings

A summary of participants' demographics are found in Table 1. In terms of the quantitative (descriptive) tools, a summary of the pre- and post-test cooking skills assessment is found in Table 2. In general, most participants identified an increase in their cooking skills acquisition from pre-test to post-test (Table 2) and indicated an improvement in self-efficacy with respect to cooking skills and knowledge of the term "local foods" (Table 3). Some participants may have been more skilled with cooking and food literacy compared to other at-risk youth in their peer group (i.e., may have entered the program with existing knife skills learned in culinary curriculum offered in secondary school). This may help explain the limited improvements in the areas of cooking skills and food literacy because their perceived skill and self-efficacy was already acceptable.

The qualitative findings presented a number of themes that emerged from the data related to the pilot program components and attributes; the impact of the program on at-risk youth participants; and future program considerations. These broad themes were not decided upon prior to conducting the interviews but instead, materialized from the data and underscored key concepts related to the intervention, the utility of the intervention, and the value of the community-based cooking program for at-risk youth from the participants' perspectives. The specific themes that emerged from the data were: food literacy; connections; confidence; youth engagement; relevance; at-risk youth behaviour; and location.

Food Literacy

Nineteen of 25 participants (i.e., at-risk youth, community partners, parents/guardians) interviewed for the formative evaluation mentioned the importance of

food literacy for the at-risk youth population, and among other populations. Comments related to food literacy focused on increased awareness of the relationship between the local agri-food industry (i.e., access and availability of foods from local farms and farmers' markets) and cooking; learning about food and cooking; and the progression of cooking skills. One volunteer summarized per view of the youths' understanding of food literacy by stating, "the light bulb goes off [with the youth when they say] 'oh this is how it's grown' and 'this is how I pick it and now I'm going to go back and prepare it'... every time you go you see the kids – they are blossoming." This was echoed by a parent, who stated,

I think it was a combination of following the fieldtrips with the produce and following it through and cooking it. I think she [daughter's name] really enjoyed that aspect of it, like going to the grocery store and getting the chicken and cutting it all up. She didn't really like that but she did it!

Even a member of the Steering Committee appreciated the enhancement of food literacy experienced by youth participants through their involvement in *Cook It Up!* She stated,

...the participants that we have currently [are] coming away with a better understanding of the food that they eat and how to prepare it. The spin-off of that is that they are going to be an influencing factor in their own families and to their friends, and hopefully as they grow older and have families of their own these [skills] are going to live on and transfer down [to their children].

Several participants stated there were numerous opportunities to learn about food literacy and cooking skills, primarily championed by the guest chefs who facilitated the cooking skills with youth. When asked what she thought was the best part of *Cook It Up!*,

the mother of one participant stated, “That he was learning. That he had the desire to go. He was more interested in foods. I know he talked to his grandmother and his aunts about his class... so he really liked it because he would talk about it.” One of the guest chefs involved in the program indicated,

None of them [youth participants] had actually gone apple picking before. None of the kids had been on a real farm. They had never seen food grown; they had never seen livestock up close... We are trying to impart knowledge. We are trying to impart professionalism. We are trying to impart skills.

The opportunity to learn about food and cooking was explained by one guest chef through an explanation of skills acquired by youth participants,

We’ve taught the kids how to respect a knife and how to respect their boards and keep things clean.... So we give them an idea of what they are going to make today and we talk to them a bit about the history of what we are making and why we are making it and then we go through the process of making it and then we give them the reasons why we are making the different processes and things to that effect.

It was important to the Program Coordinator and guest chefs to see that the participants had a good understanding of the historical context of the food they would be cooking as well as how it related to the seasonal availability of produce. One stated,

I like the mix of sessions between [cooking and] field trips because it's like practical outside of the kitchen and then in the kitchen. It does take the whole

local foods concept...taking them on a field trip is really great...[t]hose are all strengths of the program.

Finally, the progression of the participants' cooking skills might be linked to enhancing their food literacy. If the program was to be successful, an outcome related to cooking skills progression would be revealed. The Program Coordinator stated, "It's been really fun to watch the kids' interest change through the program so it's been really fun to watch their skills grow." He explained, "[I] just listen to the way that they understand food, listening to them answer the guest chefs' questions faster and more enthusiastically than they were at the start which - it's been fun to watch them grow as a group." From an at-risk youth participant's perspective, the progression of cooking skills was evident as well. She stated,

[Chef] has even told me that [my skills have] improved, like my knife-handling skills and stuff like that. He said when I first grabbed a knife I could barely use it but now I'm a lot better with them and he doesn't think I'm going to cut myself anymore...I can follow a recipe a lot better now too. Before I could follow a recipe but now it's more, like, I don't have to read the recipe for each ingredient.

Like, I can just look over it really quickly and then I can make it, type of thing.

Another youth participant indicated a similar sentiment regarding how her cooking skills progressed over the course of the intervention. She stated, "...having someone constantly critiquing [your cooking skills] and showing you 'do it this way'...they are constantly telling you that it kind of sticks in your head more." Similarly, one participant indicated, "[I liked the] hands-on aspect...I had to be shown it first and then it's ingrained in my head."

Connections

Related to food literacy is the theme of connections. Specifically, the themes of connections between farms and farmers, connections to community members, and connections to food each emerged from the data. The Program Coordinator succinctly summarized his perspective about connections, stating,

I think one of the big things that I personally believe when it comes to food is the more of a connection that a person has with the food that they are eating, the more into it they are going to be. It becomes an experience as opposed to just a meal. Building on the connection to food, one at-risk youth participant, whose sentiments were consistent with her peers said, “you got to see where all the food came from and like the process of how it's grown, which is kind of cool because if you are not exposed to that [it's not good].” A Steering Committee member agreed with the importance of connections to local farms and farmers, stating,

...it's all about that connection with your food. So when you bring kids who have never really connected with anything they are eating before, especially when you are trying to get them to explore new ideas with food and new concepts with food...when they are the ones that prepared it, [it] really makes a huge difference in how they will look at that food and look at that experience when you can take it that step further and you actually bring them out to the source of the food and they see it growing. They can't help but have that effect them in a way where they are like 'Wow, this is something that I pulled from the ground.'

The importance of community connections also emerged from the data. A member of the Steering Committee indicated that community involvement was the key reason for the success of *Cook It Up!* This person said:

I would say that if you take a look at the interest that has been shown by all of the different community partners and people who are involved, without all of them it would not work...there's a whole network of people working together to make sure that this program is delivered and delivered well. And if you take any one of them out of the equation, I'm not sure how it would work.

Cook It Up! provided connections with the at-risk youth as well, mainly through the Program Coordinator and guest chefs, but also with the introduction of the at-risk youth to local farms and farmers' markets. A volunteer noted, "the enthusiasm of the people that are involved and how that has - it sparks the enthusiasm in the kids...[i]t's like turning on the light." The youth participants felt similarly, as exemplified by one participant who stated, "the field trips were really cool because we went to like organics farms and we went apple picking and strawberry picking and all kinds of stuff like that so you got to see where all the food came from and like the process of how it's grown, which is kind of cool because you are not exposed to that."

Confidence

The theme of confidence was expressed by community participants, parents/guardians, and the at-risk youth themselves as they described the many benefits of *Cook It Up!*. Throughout *Cook It Up!*, at-risk youth participants reportedly improved their self-esteem and correspondingly their confidence in the kitchen and in themselves. One at-risk youth participant stated, "It's made me more confident in the kitchen,

definitely. I don't feel like I am going to burn the house down any more!" Many of the youth provided similar feedback. One of the volunteers who had professional experience as a teacher of children with special needs indicated, "When you see what's happening with the kids in the program and you see that you have been a part of helping them to see that they can achieve things and it's possible [for them] to feel good about themselves." In discussing the positive impact *Cook-it-Up!* had on her child, one of the parents/guardians indicated, "This [program] was just 100%. If you reached one child during this whole thing...I think that this has changed [child's name] life...[increasing her] self-confidence and someone listened to her and discussed ideas with her. And she counted." A program volunteer indicated she had noticed the youth "changed so much in this program...it's like them becoming responsible for themselves which is becoming an adult. Kids gained more confidence and comfort in their skill and their abilities."

Youth Engagement

Youth engagement was a theme that emerged from the data. A parent of one at-risk youth participant indicated that his daughter enjoyed being:

...involved in the ideas of what some of the side trips were and cooking projects.

She really liked the idea of that...I can see that this course has developed

leadership qualities in her...she didn't have that incentive before this *Cook It Up!*

A guest chef involved in the program stressed the importance of youth engagement by the participants when he stated, "It's a set of kids that are there to learn, not just there because of money. Their mom and dad didn't send them. They are here by choice. When you are here by choice, you have a tendency to learn more." This chef felt that the participants' commitment to the program underscored their efforts for engagement

throughout its duration. When it came to their perspective of engaging in the program and its various activities, the youth themselves reported feeling interested and excited to participate. This was evident through the quote of one youth participant who said, “now that I have these skills, I am going for my Food Handler [Training certificate] and I’ve been taking cooking at school...I have better confidence. I can get a job at a restaurant easier than say somebody who is just taking cooking at school...I have that much more experience.”

Relevance to Others

All participants in the formative evaluation (at-risk youth, community partners, and parents/guardians) were asked about the potential relevance of *Cook It Up!* to other populations and groups. All respondents indicated that a wide range of diverse groups could benefit from a cooking skills and food literacy program like *Cook It Up!*. One at-risk youth participant, whose sentiments reflected that of his peers, indicated, “I think that everyone can benefit from knowing how to cook their own food from scratch.” Virtually every age group, from students in elementary school, high school, university and college to teenage mothers, professional adults, and older adults, were mentioned by participants in the formative evaluation as prospective future groups to benefit from an intervention similar to *Cook It Up!*

At-Risk Youth Behaviour

The Program Coordinator, guest chefs, volunteers, Steering Committee, and even some at-risk youth participants experienced difficulties with some of the behaviours of the at-risk youth participants throughout the program. One of the volunteers who had expertise working with at-risk youth tried to keep challenging situations in perspective.

She stated, “Who knows what goes on at home, right, and who knows what kind of consistency they have in their life, so for the same people to show that dedication and come and spend that Monday night with them is probably maybe the only time that they have had that in their whole lives.” Her colleague added:

There’s times when we forget or don’t really understand some of the challenges that the youth that we are dealing with have so there may be some behaviour or lack of attendance or focus at a session and we have to remember that we are dealing with youth that are probably facing some challenges that we are not all that privy to, so we are just, you know, and we have to keep that in mind. We have to remember who we are dealing with.

Having this perspective helped the facilitators of the cooking sessions and fieldtrips have a better understanding of this unique population and increased their comfort level when working with the at-risk youth as evidenced by one volunteer who stated,

I think that there’s a couple of kids that have had some issues with organization and with obviously have problems with authority. Probably they’ve had a lot of, I would think that they would have family issues, they have behavioural issues. And I think a couple of them we had to kind of fight to keep in the program because, you know, people were seeing them as disruptive influences. I think it’s worked out and it’s been good for everybody to see that you don’t give up right at the beginning. You know, you plow through and you persevere with those kids and you do get rewards...they need a little [tender loving care] to get them on the track.

A member of the Steering Committee agreed that the whole team handled the challenge of working with at-risk youth very professionally and effectively. She stated,

I think we've worked very well with dealing with all of these challenges... We are very fortunate there that we've got a diverse mix of people making that up who can come in and have expertise in dealing with youth either as a teacher or a service provider for at-risk youth.

As mentioned above, some of the youth themselves found the behaviours of other participants to be challenging. One youth participant described this well when she said, "there are some kids that it was just like kind of avoid them... don't pretty much engage with them too much."

Location

Likely the greatest challenge was securing a satisfactory location for the initiative for the entire duration of the project. The *Cook It Up!* program participants (Program Coordinator, guest chefs, volunteers, and at-risk youth) needed to exercise flexibility with respect to the location as it was changed on four different occasions over the 18-month duration of the program. Finally, the Steering Committee was fortunate to secure a centrally-located industrial kitchen in a faith-based organization easily accessible by bus. A volunteer stated, "the biggest challenge has been finding a home for the program... it's difficult for kids and their parents to be in the different kitchen and the different venue, you know. I think it's hard – those kids crave familiarity and consistency." In the early stages of the program when a central location was not secured, guest chefs were asked what their ideal kitchen would include and where it would be located. Respondents shared very similar thoughts to this guest chef, who stated, "I think it would be centrally

located where it's easy to get to on a bus, easy to find. It would be easy to keep clean...conducive to group work." At one point in the program, the lead investigator and Program Coordinator were able to find a location that met all these parameters and in the process, and reported that this collaboration created a valuable community connection with the faith-based organization that offered their space to the program.

Discussion

The findings from this formative evaluation suggest that, from the perspective of participants in the program, the *Cook It Up!* community-based cooking programs for at-risk youth was an important intervention to facilitate teaching this population of at-risk youth about food literacy and cooking skills. These findings also suggest that an intervention such as *Cook It Up!* might assist in the participants' connection to the local agri-food industry while building essential life skills, self-confidence and self-efficacy. The application of food knowledge from "farm to fork", that is, food literacy skills, is not only relevant to the at-risk youth population targeted in the current study, but also for a wider range of target populations, from young children to older adults and many age groups in between. This programming addresses the erosion of these important life skills. One challenge with a program of this description could be the disposition of the target population and their specific needs. In the current study, working with at-risk youth might have presented major issues had it not been for the advice sought from community experts working directly with this unique population. It would be necessary to have a good understanding of any new population targeted for an initiative like *Cook It Up!*. Additionally, having community connections with experts in the field working specifically with the new population would also provide an enhanced understanding of

the target populations' specific needs could facilitate program success. Furthermore, the lack of a centrally located, accessible location was a necessary component of the program for youth participants, volunteers, and guest chefs alike. An appropriate location for the program was an ongoing concern during the *Cook It Up!* program; however, the Steering Committee eventually acquired the ideal site, thus alleviating the stress of implementing the intervention in a less than suitable location.

The findings of the current study are meaningful because they contribute to the limited evidence concerning food literacy and cooking skills. These findings also provide participants' perspectives of the need for continued skills development to a range of target groups. Educational programs focusing on cooking skills development provide the opportunity to enhance and improve participants' self-efficacy while teaching basic food preparation and healthy nutrition behaviours and practices in a hands-on environment. The literature indicates programs designed using these components are well-received by participants and facilitators alike (Byrd-Bredbenner, 2004; Haley & McKay, 2004; Lai Yeung, 2007; Levy & Auld, 2004; Meehan, Yeh, & Spark, 2008; Winter, Stanton, & Boushey, 1999; Wrieden et al., 2007). However, these programs are not offered consistently to all youth populations, especially at-risk groups, either in a school environment or outside regular school hours. From this information, a useful food literacy intervention could be replicated or created and transferred to other communities and/or populations. Alternatively, a larger study could be implemented and evaluated based on the outcomes of this pilot project. The Steering Committee of the *Cook It Up!* program anticipated that other communities would adopt and adapt the program to meet their

community needs thus demonstrating the sustainability of *Cook It Up!* beyond the local community.

Throughout the entire intervention, confidence among at-risk youth participants was explored, developed, and enhanced. Confidence is one of several key ingredients for positive youth development (Lerner, Fisher, and Weinberg, 2000), an important aspect of the implementation of *Cook It Up!*. Youth engagement can be defined as engaged participation and involvement of youth in a program (Centres of Excellence for Children's Well-Being, 2009). Youth were consulted at all stages throughout the intervention, including but not limited to recipe selection, field trip ideas, and content development for the program curriculum.

Along with the outcomes of achieving enhanced cooking skills, food literacy, self-confidence and self-efficacy, other outcomes of importance were realized in the context of this intervention. For example, *Cook It Up!* facilitated the opportunity to explore the relationship of cooking skills development and the possibility for improved nutrition and healthy eating outcomes among this population. The relationship between food and health has been documented extensively. Nutritious food is a basic need. When individuals follow *Eating Well with Canada's Food Guide* (Health Canada, 2007a), they are better equipped to obtain sufficient vitamins, minerals, and other nutrients, reduce the risk of type 2 diabetes, obesity, heart disease, certain types of cancer, and osteoporosis, while achieving overall health and vitality (Health Canada, 2007b). However, the consumption of unhealthy diets has resulted with the increased incidence of overweight and obesity, especially among Canadian children and youth (Biro & Wien, 2010; Lee & Cubbin, 2002; Shields & Tjepkema, 2006; Taylor, Evers, & McKenna, 2005). Greater

risk of obesity in children is correlated with higher consumption of sweetened beverages (Ludwig, Peterson, & Gortmaker, 2001; Statistics Canada, 2008), increase intake of oils and fats (Statistics Canada, 2006), and increase in the total calories consumed (Statistics Canada, 2006).

While these poorer eating patterns are associated with overweight and obesity, healthy eating patterns are associated with positive health outcomes including healthy weights. For example, eating more servings of vegetables and fruit is linked with healthy weights, weight loss, and better weight management (Rolls, Ello-Martin, & Tohill, 2004). One impediment to establishing a pattern of healthy eating is related to the ability to prepare nutritious foods. A cooking skills and food literacy program similar to *Cook It Up!* might improve cooking skills and the consumption of healthy foods. As a result, cooking skills programs might help improve the achievement and maintenance of a healthy bodyweight. While a variety of populations presenting with limited cooking skills may have increased challenges in achieving optimal health and well-being, the at-risk youth population may have one of the greatest risks for poor nutrition and consequently, food and cooking programs may be even more impactful for them (Mohajer & Earnest, 2010).

Another implication of the provision of cooking skills development relates to the opportunity to improve or enhance community food security. According to the Community Nutritionists Council of British Columbia (2004), community food security “exists when all citizens obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone” (p. vii). The foundational goals of community food security

are diverse and include components relevant to cooking initiatives. For example, the need to enrich the positive experience of growing, preparing, and consuming food while building the capacity for people to improve their quality of life through both education and empowerment (Dietitians of Canada, 2007) reflect goals shared by food literacy and cooking skills programs. These programs can be designed to include education and awareness of food production and preparation, from the farm producing the food to an individual's kitchen where it is prepared. Food literacy and cooking skills programs might improve the opportunity to achieve food security, especially for those vulnerable populations who have the greatest risk for food insecurity.

Food literacy and cooking skills are essential for a number of reasons. Lang and Caraher (2001) highlighted that cooking skills underscore one's ability to acknowledge what constitutes a healthy diet. Food literacy and cooking skills enable and empower individuals to make healthy food choices both by having the ability to prepare food from "scratch" and also by understanding the process by which ready-to-prepare foods are made (Lang, Caraher, Dixon, & Carr-Hill, 1999). Lang and Caraher (2001) also identified food and cooking skills with cultural identity. As mentioned earlier, food literacy and cooking skills are necessary to protect against food insecurity (McLaughlin, Tarasuk, & Kreiger, 2003). Perhaps one of the most important roles of food literacy and cooking skills relate to the development of essential life skills while providing an opportunity to engage in fun, hands-on learning (Lang & Caraher, 2001). Youth, especially those at-risk for failing to achieve the positive social determinants of health, require being equipped with an essential set of practical skills such as food literacy and cooking (Thomas & Irwin, in print). These skills will facilitate at-risk youths' ability to

make healthy food choices (Article 3) in service of reducing their risk for chronic disease while achieving and maintaining a healthy bodyweight and contributing to acquiring food security.

Limitations

Cook It Up! provided a hands-on initiative for at-risk youth to gain essential food literacy and cooking skills in a supportive environment which fostered their self-esteem and confidence. The limitations of this study focus on the small number of participants in the intervention itself. Of the 25 participants involved in the formative evaluation, only five participants were at-risk youth themselves, the main target population for the *Cook It Up!* intervention. There was a total of eight at-risk youth who were involved in *Cook It Up!* when it was conducted from August 2009 to November 2010. With this small number of at-risk youth participants in the formative evaluation, we cannot confirm the opinions of the other three participants, let alone those at-risk youth who did *not* become involved in *Cook It Up!* at any time throughout its duration. It would be interesting to know what other at-risk youth would have shared about this unique initiative, and if they did not become involved, why they were not interested in participating in this intervention. Perhaps there would be a more efficient or effective way to reach these at-risk youth, in the community environment or alternatively by recruiting in a school setting. It is noted that the youth participating in the intervention and the formative evaluation may be quite different from their at-risk peers who did not come forward to participate. The participants in this study were self-selected to the intervention and upon successfully meeting recruitment requirements, were very engaged in the intervention from commencement to completion. Some of these at-risk youth already demonstrated a

predisposition to food literacy and cooking skills through their participation in culinary curriculum at the secondary school level.

Additionally, a small number of parents/guardians participated in the formative evaluation. It is difficult to make any recommendations based on perspectives from only a few parents/guardians. While this information was interesting, it would have been useful to have the opinions about the *Cook It Up!* program presented by other parents/guardians involved in the intervention. Their lack of involvement might reflect their at-risk characteristics as well, which may have contributed to their barrier to participation in the formative evaluation. Regardless of the small sample size of participants in this research, the contextual information provided serves to shape future food literacy and cooking skills development programs targeting at-risk youth.

Conclusion

This formative evaluation assessed the strengths and areas for improvement of the community-based cooking program for at-risk youth and its delivery. Through this assessment, we uncovered barriers and opportunities that served to make the program more effective. Finally, this evaluation engendered insight about how the program content and implementation could be improved. The research facilitated the development of a “how-to” community resource manual available for local and provincial distribution (Appendix A). To date, this initiative has been adapted by a number of agencies locally and provincially (i.e., Youth Opportunities Unlimited, Children’s Aid Society, Cross Cultural Learners Centre, and the North Bay and District Health Unit). *Cook It Up!* provided a useful template to be shared with other agencies and groups interested in improving food literacy and cooking skills among their target populations.

School- and community-based cooking programs for youth provide numerous benefits, including the development of necessary life, social and economic management skills, and education about healthy eating in service of improving weight status and overall health (Byrd-Bredbenner, 2004; Lai Yeung, 2007; Larson, Perry, Story, & Neumark-Sztainer, 2006; Larson, Story, Eisenberg, & Neumark-Sztainer, 2006). With the cooking skills syllabus removed from the curriculum from several North American school systems, there are fewer opportunities for youth to learn and apply basic food-related skills such as proper food selection, preparation, storage, and usage. This “deskilling” of food and cooking demonstrates the need to expose youth to cooking/culinary and food literacy programs. The creation of food literacy and cooking programs using existing culinary infrastructure and linking with experts in the community (e.g., local guest chefs and farmers) might be a solution to facilitate the provision of these important skills to this population and others. In the process, food literacy and cooking skills development programs also will improve attitudes, self-efficacy, nutrition knowledge, confidence, and perceived cooking ability (Thomas and Irwin, in print).

Youth life stages are key periods of social and biological development which can impact on health-related behaviours and beliefs (Ruland, 2005). Lang and Caraher (1999) succinctly identified the role of health promotion in changing knowledge, attitudes and behaviour in which food literacy and cooking skills provide a catalyst for the intersection of all three. Health professionals are in a position to advocate for the inclusion of cooking skills programs to re-skill an already vulnerable youth population with limitations in food literacy and cooking skills development.

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CHAPTER IV

Article 3 – Exposing Negatives into Positives: Using Photovoice with At-Risk Youth Participating in a Community-Based Cooking Program³

Adolescence is a critical period of life, where relationships are formed, rules and cultural norms are tried, improved financial independence is achieved, and risky behaviours are tested (Ruland, 2005). When considering at-risk youth, this vulnerable population is more likely to be overlooked by programs, less likely to receive skills training and reproductive health information and resources, and is at greater risk of exploitation (Mohajer & Earnest, 2009). In terms of nutritional health, Canadian youth, in general, exceed their energy needs; need to decrease their saturated fat intakes; have inadequate intakes of magnesium, vitamin A, phosphorus, and fibre; and have sodium intakes at levels associated with an increased risk of undesirable health outcomes (Health Canada, 2009).

Although varied definitions of “at-risk youth” are provided in the literature, there is agreement that the term includes a range of characteristics such as: diverse racial backgrounds; negative influence from family, environment or peers; social factors that restrict healthy mental, physical and social growth; limited financial resources; difficulty achieving optimal education; and behavioural issues (Dobizl, 2002; Moore, 2006; Sussman et al., 2010). Any one of these descriptors can impede the development of an at-risk youth into a successful adult (Dobizl, 2002). In the public health context, at-risk youth require attention and focus given their increased potential vulnerability to realizing

³ A version of this chapter has been accepted by Canadian Journal of Dietetic Practice and Research for publication.

supportive determinants of health (Skinner, Salvettin, & Penfield, 1984).

Poor dietary habits during adolescence (13-18 years old) can impact health markers including but not limited to: healthy bodyweight attainment; normal growth and development; dental health; and overall well-being and functioning (Fagot-Campagna, 2000; Figueroa-Colon, Franklin, Lee, Aldridge, & Alexander, 1997; Figueroa-Monoz, Chinn, & Rona, 2001; Reilly et al., 2003; Serdula et al., 1993). Youth involvement in food-related tasks such as food shopping and preparation (Hebert & Jacobson, 1991; Public Health Agency of Canada, 2003; Watt & Sheiham, 1996) is not well documented in the literature. Researchers have found that when youth are involved in preparing food for meals, they are more likely to eat more nutrient-rich foods including higher intakes of fruits and vegetables, higher intakes of key nutrients, and lower intakes of fat (Anderson, Bell, Adamson, & Moynihan, 2002; Brown & Hermann, 2005; Thonney & Bisogni, 2006; Wrieden et al., 2007). However, these studies assume youth have access to food on a regular basis, and live in a family-style environment. A clearer understanding of the impact of food literacy (i.e., the ability to make healthy food choices by having the skills and knowledge necessary to buy, grow, and cook food with implications for improving health [Begley & Gallegos, 2010; The Food Literacy Project, 2010]) on this vulnerable population is needed.

In an effort to remedy the erosion of cooking and food literacy skills among youth (Lai Yeung, 2007; Lang & Caraher, 2001; Short, 2003), a 18-month community-based cooking program for at-risk youth was designed, implemented, and evaluated. *Cook It Up!* was offered in London, Ontario and focused on building self-efficacy, food knowledge and literacy, self-confidence, and self-esteem (Thomas & Irwin, in print). The

primary objective of *Cook It Up!* was to enhance existing proficiencies and build greater cooking competence and food literacy among at-risk youth (aged 13-18 years old) through an introduction to the local agricultural industry and hands-on instruction by local chefs.

The formative evaluation (Article 2) suggested that the pilot program was targeting its objectives; however, the *Cook It Up!* Steering Committee wanted to determine if youth participants would continue to apply cooking and food literacy skills beyond the completion of the program. To determine this, youth in the *Cook It Up!* program were invited to participate in a Photovoice (PV) research study to identify their perceived barriers and facilitators to the employment of their cooking and food literacy skills beyond their involvement in the program.

Purpose

The ability to transfer skills learned in *Cook-it-Up!*'s unique educational environment is essential for participants to practice lifelong food literacy and cooking skills. If transferred successfully to their personal environments, these skills can help participants to nourish themselves and their families, thus gaining greater control over their health and well-being. Therefore, the purpose of this study was to qualitatively assess, using PV, the facilitators and barriers at-risk youth participants experienced when applying their program-acquired cooking skills in environments external to *Cook It Up!*

Methods

Photovoice is a qualitative research method in which still picture cameras are used to document participants' health and community realities (Wang & Redwood-Jones, 2001). This unique approach combines grassroots social action with the creative

expression of photographs (Wang, Yi, Tao, & Carovano, 1998) to respond to the research question by constructing and discussing the photographs taken as a means of inspiring personal and community change (Wilson, Minkler, Dasho, Wallerstein, & Martin, 2008). PV researchers frequently describe this method as a Participatory Action Research (PAR) strategy (Wang & Burris, 1997), because often it is employed with more vulnerable groups. PV attempts to utilize the perspectives of marginalized people to influence policy makers about important decisions that govern their lives (Wang & Burris, 1997). PV empowers participants by giving them a voice to speak about local issues that affect them directly, connecting them with others in their community, and advocating for change (Wang & Pies, 2004). PV gives words greater impact, because the accompanying visual images can be both impressive and inspiring (Wang & Pies, 2004).

For the current study, a convenience sample of youth (aged 13-18 years old; $n=8$) already involved in the *Cook It Up!* program were invited to participate in PV research project. All youth attended a PV overview and camera orientation session where participants reviewed a letter of information (Appendix F) about the research. Participants were given disposable cameras and were instructed about their proper use, photo-taking parameters, ethical issues surrounding picture taking (e.g., invasion of privacy, fairly representing communities and their members), and the rights and responsibilities of the youth participants (as photographers) when taking pictures (e.g., personal expression of views and experiences, photograph selection, positivity with peers, being respectful) (Photovoice Hamilton Ontario, 2009; Wang, 1999; Wang & Redwood-Jones, 2001). Verbal informed consent was received from four participants who agreed to take part in the PV research (two of each sex and all between the ages of

15-17 years old). Although only four participants consented to participate, this number represents half of the total sample from the *Cook It Up!* program. At-risk youth are often very difficult to reach and involve in community programming and research (Harper & Carver, 1999). The participation of these four youth, though not reflective of a broader at-risk youth population, provided rich, contextual data which can inform other food literacy projects. Youth were encouraged to take photos of a variety of subjects that inspired or deterred them from applying the cooking skills learned during *Cook It Up!* After taking photos, participants returned their cameras to the lead investigator for developing.

The constructivist approach (Ponterotto, 2005) and guidance from previous PV researchers (Wang & Burris, 1997) informed the analysis of the data which began upon collection from participants. Wang and Burris (1997) advised that participatory analysis occurs in three steps. Firstly, the *Cook-it-Up!* participants reviewed their environment by choosing the subjects for their pictures. At this time, participants reflected about what they perceived as barriers or facilitators to the application of their program-acquired cooking skills. Secondly, participants reviewed their pictures and decided which ones to highlight in the discussion group. The third step occurred during the discussion group where the lead investigator served as the group moderator. During this discussion, the youths' 62 pictures were displayed in a PowerPoint presentation and as hard copies. As a group, youth were asked to choose any number of photos they felt best represented the facilitators and the barriers to the application of their cooking skills. As outlined by Wang and Burris (1997), participants continued to interpret the images as they described them and their feelings about their photos to the group. After a total of 23 photos were selected, the group discussed the choices. The discussion of these photos generated the data and

themes for analysis. The data from photo discussions were analyzed like other qualitative data through the coding of the data generated in the discussion group, followed by the exploration, development, and interpretation of themes (Hergenrather, Rhodes, Cowan, Gardhoshi, & Pula, 2009).

The discussion group lasted approximately two hours, and in addition to the lead investigator moderating using a semi-structure interview guide (Appendix E), an experienced assistant moderator was employed with the responsibility of monitoring non-verbal cues and language, the dynamics of the group, and making note of possible questions that could improve and/or add to the discussion (as advised by Wang & Burris, 1997). The lead investigator and assistant moderator had limited training in PV specifically; however, the lead investigator went through informal mentorship training with another experienced PV researcher who provided guidance and suggestions for conducting an effective PV study in accordance with the approach advised by Wang and Burris (1997).

Due to technical difficulties, the discussion group could not be audio recorded and transcribed verbatim. However, the discussion was captured in detailed pencil-and-paper notes taken by both the lead investigator and assistant moderator. During the discussion, concurrent analysis of the data emerging from the photographs and themes was provided by the participants, and facilitated and member-checked by the lead investigator to ensure that the themes emerging from the discussion represented the participants' collective experiences as discussed by the group. Additionally, the notes taken by the lead investigator and assistant moderator were consulted. These notes informed non-verbal language and also provided a verbatim account of the words participants used to describe

their photos. The notes were reviewed during the confirmation of data analysis which occurred immediately following the discussion and facilitated the researchers' ability to capture valuable information and create an audit trail.

To help facilitate the trustworthiness of the findings and minimize researcher bias, a number of strategies outlined by Guba and Lincoln (1989) were employed (see Table 1; adapted from Irwin et al., 2005). The study was approved by The University of Western Ontario Office of Research Ethics (Appendix G).

To provide essential contextual information which inform findings, the authors positioned themselves toward constructivism, where "meaning is hidden and must be brought to the surface through deep reflection...stimulated by the interactive research-participant dialogue" (Ponterotto, 2005, p. 129). This deep reflection serves to build credibility through extended engagement with the data by participants and researchers alike. Reflecting on the photographs and deriving their meanings as perceived by participants represents the constructivist paradigm. PV aligns well with constructivism because participants and researchers mutually co-construct findings from their dialogue and interpretation of the photographs. For example, the photographs were reviewed by all participants in the PV study and discussed in detail with the lead investigator and assistant moderator. This process enabled the co-construction of meaning attributed to the photos aided by questions from the semi-structured interview guide and perspectives of the at-risk youth participants, as described by Hergenrather and colleagues (2009).

Findings

Youth identified facilitators to the application of their cooking skills outside their involvement in *Cook It Up!* within the themes of : aptitude; food literacy; local and fresh;

and connectedness. From the selected photos, youth named access to unhealthy fast foods as the only barrier to the application of their program-acquired cooking skills. Although neither a barrier nor facilitator, an additional theme of advocacy came from the data and is also presented below.

Facilitators to the Application of Cooking Skills Peripheral to *Cook It Up!*

Aptitude. Youth defined “aptitude” as possessing knowledge and skill to prepare foods and to replicate the technique at home. They equated “aptitude” with knowing which spices enhanced foods, which kitchen implements, utensils and equipment would be necessary to prepare recipes, and how to coordinate the preparation and cooking of several dishes simultaneously to serve them together at a meal. Participant 1 (P1) indicated, “We learned how to take a whole chicken and used knives to take it apart...I can do it at home now.” Knife skills were a key component of the *Cook It Up!* program. P2 stated, “Learning how to cut the onion properly and having knife skills is important.” P1 said, “I learned how to use the knife properly. I didn’t know how to do that before.” Applying their cooking skills at home, while expressing cultural food preferences and traditions was important to some youth. For instance, P2 expressed pride in his heritage when assisting his mother in meal preparation. In a series of photos, P2 demonstrated his aptitude in creating a cultural dish from ‘scratch’. In the past, P2 did not help in the kitchen, but his desire to enhance cooking skills built his confidence and inspired him to assume more cooking responsibilities. He said, “I learned a lot of skills in the kitchen and can do them at home.” Youths’ competence in the kitchen and self-described enhanced self-efficacy was met by having the aptitude to replicate familiar recipes independently.

Food literacy. Youth described “food literacy” as having an understanding and knowledge of food preparation, from start to finish. Their definition included food selection, purchasing, preparation, and preservation. Participants also indicated ‘food literacy’ expanded upon the ability to prepare food and explored agricultural origins of food and how to prepare it. In the PV discussion group, P1 indicated, with pride,

That’s the first time I made eggs like that. I poached them in a pot of boiling water. My Dad told me that if you put vinegar in the water they turn out better.

They are on toast with grated cheese. My brother makes me make them for him all the time – he’s 22 [years old]!

P3 added to the discussion about “scratch” food preparation and commented, “You get to control the ingredients. That’s why I like making my own burgers rather than buying them already made because I can add in what I like.” The discussion about ingredient control prompted P3 to state, “We learned how to use different spices in different ways, properly. If we added too much or not enough, we learned how to adjust it. You need to start with small amounts.”

During a *Cook It Up!* fieldtrip to a local market focused on food preservation. P4 indicated, “We learned how to jar our own food. I never knew that you can jar your own food. I thought only food companies can do that.” Learning the potential for preserving one’s own food was a revelation for participants. This specialized skill was reportedly practiced at home by all participants, primarily in making strawberry jam preserves.

Cleaning up dishes was identified as the least desirable task of food preparation, but all participants recognized it as a part of the process. P1 revealed, “I don’t like doing dishes but it is a part of the cooking so you have to do it.” P4 had a different approach to

Table 1

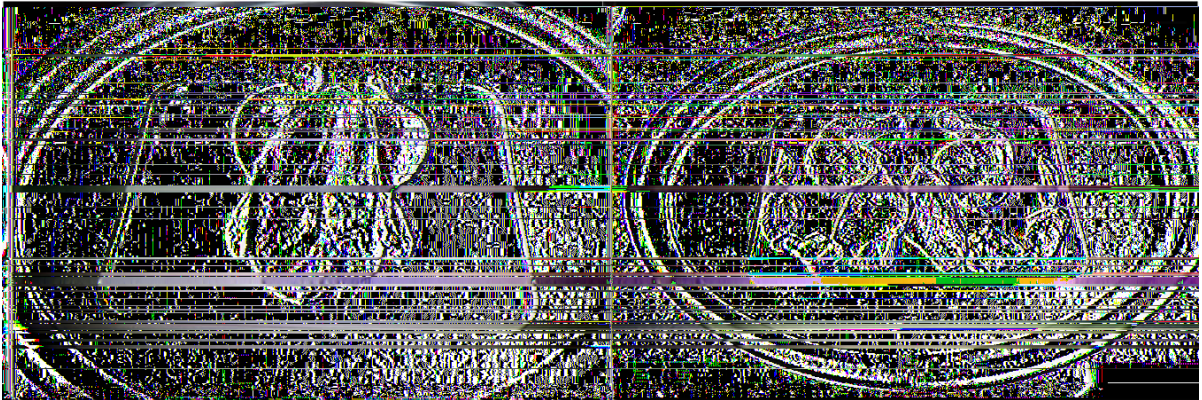
Measures to Facilitate Data Trustworthiness

Credibility	Member-checking was used between each question and at the end of the interview to ensure the responses from participants were correctly understood and recorded by the researcher. The lead investigator told the participants how she understood their responses before going to the next question in the interview guide.
Dependability	Following the interview, the lead investigator and a member of the research team met to debrief and summarize the interview. A colleague not involved in this study was also asked to participate in peer-debriefing meetings with the researchers after the interviews. Detailed notes from this discussion were recorded and potential biases were identified, documented, and discussed to make sure these biases would not affect the data analysis. Detailed notes also provided an audit trail. During the data analysis, the lead investigator also engaged in reflexivity to help keep any personal biases in check.
Confirmability	Inductive content analysis was performed independently and simultaneously by two researchers with experience in qualitative research. Findings were triangulated and subsequently, analyses compared. Data were examined for similarities and differences and the research team highlighted emerging themes. Another member of the research team reviewed the data and engaged in peer debriefing with the research team to ensure that any of the researcher's biases that were taken for granted have been revealed. Additionally, through this process, the researcher can become aware of her position toward the data and its analysis.
Transferability	The entire research process has been documented in detail to will allow other researchers to determine if the context and findings from this study are transferable to their contexts and settings.

Note. Adapted from "Preschoolers' physical activity behaviours: Parents' perspectives,"

by J.D. Irwin, M. He, L.M. Sangster Bouck, P. Tucker, & G.L. Pollett, 2005, *Canadian Journal of Public Health*, 96(4), 299-303.

Figure 1. Chicken Before and After



doing the dishes. She suggested, “If I want to cook the problem is the dishes so I ask my siblings if they want some (food) but the catch is that they have to wash the dishes!”

Local and fresh. As outlined in a paper by Thomas and Irwin (in print), a broader purpose of *Cook It Up!* program was to introduce urban youth to the local agri-food industry and provide them with cooking skills development showcasing local, seasonal foods. This purpose was accomplished when all participants in the PV discussion group identified local and fresh ingredients as key components to healthy, delicious meals, whether purchased at a grocery store, grown in one’s backyard, or picked up at a farmers’ market. Participants’ comments showcased their opinions about local farmers’ markets and included: “...fresh items are there...”; “...it makes me feel like cooking...”; “...it is different from the grocery store...”; “...you know where [the food from the farmers’ market] came from...”; and “...it gives you a connection to the farmer....” P4 had the opportunity to pick locally grown beans with her family. She stated, “This was the first time I went to pick beans. I didn’t know there were so many different types of beans...They made me happy when I ate them.” P1 added, “I don’t understand why you’d buy canned beans when you can buy them fresh.”

Connectedness. The theme of connectedness related to the youths' connection not only to food and the farmers who grow it, but also their relationships - through food - to their culture, diet, family, and health. P4 spoke at length about her association with farmers, family, and culture through the food she harvested and prepared. She expressed her experience when visiting a farmers' market and said:

It is hard to work at this market so if the farmers and other workers are smiling, they must be really liking what they are doing. It is warm and inviting to have someone smile at you like that. It's welcoming.

Figure 2. Field of Beans



At the grocery store, the image of the Foodland Ontario® flag conjured participants' comments such as: "...it means local food, fresh and healthy..."; "...it grows on the vine

longer before being harvested...”; “...I’m supporting local farmers and the economy when I buy this food...”; and, “...I’m more likely to buy it....”

In terms of culture, P4 shared a photo of her mother cutting traditional sweet bread. P4 stated, “I know how to make it – my Mom taught me.” Pride and confidence in P4’s voice were clear when she spoke of her connection to her culture through cooking traditional foods at home. Additionally, family involvement in meal preparations was significant in some participants’ families. P4 indicated:

We all pitch in a little to help out and then we all sit together to eat. My sister wanted to put the fall leaves around the table to make it look like Thanksgiving. We got those little pumpkins as a centerpiece...This is our whole dinner for Thanksgiving – all made fresh. It’s a home cooked meal – we actually did it and sat as a family and celebrated. We have to help make something for us to eat. It’s helping out as a family.

Cook It Up! participants were instructed in formal table setting procedures including using appropriate utensils to follow proper etiquette. P1 indicated, “It’s important to know how a place setting is set so if you have to go somewhere, it isn’t embarrassing and you know which fork to use. Where do you learn that now?”

Connectedness to health was important for one participant. P1 stated, “My Dad is diabetic so we really pay attention to sugar content in food...because of [his] medical problems, we use these [specialized cookbooks] at home.” Whether it was the importance of health, culture, family, or supporting local farmers, food was the link that created the connection for those relationships.

Barrier to the Application of Cooking Skills Peripheral to *Cook It Up!*

Access to unhealthy foods. Interestingly, only one barrier to the application of cooking skills outside the *Cook It Up!* program was identified. Effortless access to fast food restaurants created challenges for participants and discouraged them from cooking. P1 affirmed, “It’s kind of gross how easy it is to get fast food.” P2 agreed with this statement. When asked if P2 purchased fast food any less since he’s been involved in the *Cook It Up!* program, he indicated, “No, I still get it maybe once a month. But at least now I know what is in fast food” which was enough of a deterrent to purchasing fast food more frequently. Youth mentioned that easy access to inexpensive food marketed to this specific population created a diversion from preparing home-made food.

Advocacy

One final discussion point that was not specifically a facilitator or barrier to the application of cooking skills but was of importance to youth participants was the opportunity to advocate for community-based cooking programs outside the traditional school environment and offered for high school credit. *Cook It Up!* gave youth participants the confidence and self-efficacy to engage in and apply cooking skills in their home environments and they felt strongly that these skills should be offered to other youth. Advocating for a program like *Cook It Up!* for youth in the community context was identified as appealing and important to youth in this PV study.

Discussion

PV allows people to portray images of their everyday life and experiences through the use of a camera. People then tell the story behind their photographs, thus sharing the rich context of their lives from their own perspectives (Wang & Burris, 1995). The old adage, “a picture is worth a thousand words” (Stevenson, 1948, p. 2611) summarizes PV very

Figure 3. Fast Food Obstacle



well; however, PV expands upon the axiom by allowing the photographers (youth participants) and the viewers of the photos (researchers and key stakeholders) entrance to the participants' community and life, through which they are able to document and share what is meaningful and real to them (Wang & Burris, 1994). The photographic documentation initiates dialogue among the participant photographers, the PV researchers, and key decision-makers, thus encouraging action and informing policy development with the goal of improving the social, political, and/or environmental aspects of the participants' community (Wang & Burris, 1997).

The current study provided at-risk youth an opportunity to create photographs which depicted their perceptions of the barriers and facilitators regarding the application of their program-acquired cooking skills. The themes that emerged were consistent with facilitators to cooking skills development in other studies (Caraher, Dixon, Lang, & Carr-Hill, 1999; Dowler & Caraher, 2003; Lang, Caraher, Dixon, Carr-Hill, 1999; Stead et al.,

2004). The barrier identified by participants, access to fast food restaurants and unhealthy food, has also been identified in the literature (List Hilton, Ackermann, & Smith, 2011; Stead et al., 2004; van der Horst, Burnner, & Siegrist, 2011). It is promising that the application of participants' cooking skills and knowledge about local, fresh ingredients might be sufficient to help deter them (even somewhat) from the strong persuasion of easily accessible fast foods.

The discussion group was a catalyst empowering participants to provide words to their photos, share their thoughts, and have their opinions further explored and validated by others. Zimmerman (2000) identified that empowerment requires goals and strategies for executing change. In the current study, PV provided the vehicle by which the youth described the use of their cooking skills (their goals) resulted in increasing confidence and self-efficacy (their executed change). Throughout the entire discussion group, participants exuded confidence when outlining their opinions about the photographs and related the pictures to their experiences outside *Cook It Up!* According to Lang and Caraher (2001), the erosion of cooking skills may actually be an issue of confidence. Short (2006) confirmed that confidence in cooking impacts how and what we choose to cook. Clearly, confidence and self-efficacy are necessary to ensure the ability to create a variety of meals and the selection of healthy food choices in the process.

Dialogue during the discussion group engendered thoughtful descriptions of the influencers and challenges to the application of youths' program-acquired cooking skills. Other PV studies, while not specific to cooking skills per se, also stimulated meaningful and reflective narratives among participants which empowered them to consider advocating for change (Foster-Fishman, Nowell, Deacon, Nievar, & McCann, 2005;

Garcia, Sykes, Matthews, Martin, & Liepert, 2010; Goodhart et al., 2006; Strack, Magill, & McDonagh, 2004; Wang, 2006). According to Gray and colleagues (2010), the involvement of participants in innovative expression like PV can engage individuals in both personal and community-based change via reflection, empowerment, and connectedness.

In the current study, there is an opportunity to share the results of the discussion group with key education policy stakeholders in service of advocating for unique community-based cooking skills and food literacy programs targeting youth. The lead investigator with assistance from youth participants in the PV study and community-based cooking program plan to request a meeting with local school board officials where participants will share their experiences during and after the program, highlighting their perceived facilitators to the application of their cooking skills post intervention. Advocacy efforts geared to re-implementing food literacy programming at the elementary school level, mandated family studies education at the secondary level, and the provision of high school credit for the completion of community-based cooking programs will be discussed. In addition, the photographs will be displayed at a local art gallery to showcase the youths' participation in the program, what they learned, and how they feel they benefited from the intervention with respect to the application of their cooking skills beyond the duration of the program.

Limitations

While PV was an effective method to utilize with this vulnerable population, it was not without challenges. Youth are not as inclined to take photographs of “things” or “experiences,” as was also seen in a study by Drew, Duncan, and Sawyer (2010). As in

this study, participants required a certain amount of coaching from the Program Coordinator of program, lead researcher, and program volunteers, to complete the PV task. Additionally, the lead investigator provided participants with an example of PV to demonstrate the types of photographs that they could consider and how the discussion of these photographs contributes to the PV research. This example seemed to be an effective way to build youths' confidence in taking photos of what they perceived as barriers and facilitators of the application of their cooking skills external to the program.

As with any qualitative study, a small sample size cannot provide sufficient evidence to be able to generalize study results to the broader youth population. However, this pilot study provided the basis for the development of additional community-based food literacy programs targeting at-risk youth among other relevant populations and as such, the findings are relevant and transferable. Since the completion of this community-based cooking program for at-risk youth, a number of other similar programs based on this food literacy and cooking skills intervention have been implemented in London, Ontario (e.g., Youth Opportunities Unlimited, Cross Cultural Learners Centre, Children's Aid Society Youth in Transition, and Independent Living Centre of London and Area).

Finally, it is difficult to know why some at-risk youth who were actually involved in the cooking program did not choose to participate in the PV research component of the program. While two of the four non-participating youth responded to the invitation explaining why they could not participate (i.e., funeral to attend, shyness to share in front of the group), the other two youth did not respond to the invitation to participate; therefore, it is assumed they were disinterested in the research, although that is not confirmable. Youth, especially at-risk youth, can be difficult to connect with (Harper &

Carver, 1999) and as such, it should not be surprising that some chose to not participate in the study.

Relevance to Practice

As succinctly stated by Stinson (2010), “students who are provided with opportunities to explore ideas about and connections to food gain a varied and rich understanding about the food system” (p. 17). The findings of the current study can be shared with key education stakeholders to advocate for the creation of sustainable community-based cooking programs for youth with the potential to gain an educational credit. These programs could provide youth the opportunity to participate, learn, engage, enhance, and achieve culinary competence and food literacy expectations while simultaneously meeting the provincial curriculum standards. Without the voices and photos from this unique youth population, it is more challenging to demonstrate the need for credited food literacy programming targeting the at-risk youth population. Next steps could engage Registered Dietitians in public health settings to assist in this advocacy effort to create opportunities to teach essential life skills which serve to keep youth healthy into the future.

The current study also demonstrates that PV is an effective research method that sanctions youth, who otherwise may not have a voice, with the tools required to express themselves through photos and words. Registered Dietitians can be creative when working with vulnerable populations by using PV to elicit responses through client engagement.

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CHAPTER V

Summary, Implications, and Future Directions

Summary

The overall purpose of this integrated-article dissertation was to examine the planning, implementation, and formative evaluation of a food literacy and cooking skills program grounded in the Generalized Model for Program Planning (GMPP), Participatory Action Research (PAR), and self-efficacy. To fulfill this purpose, three distinct yet related articles were written. Article 1 described the multi-step process of developing an 18-month community-based cooking program (*Cook It Up!*) for at-risk youth as guided by the GMPP, PAR and self-efficacy.

Article 1's delineation of the steps taken to plan, implement, and evaluate this health promotion program is of value to other practitioners who want to create a similar program with their populations; the detailed description provided in Article 1 can be used to build upon our work rather than creating an entire intervention from the ground up. It is through the sharing of this type of programmatic information that researcher-practitioners can co-create programs that will ultimately facilitate healthier food-related options among those in need.

In Article 2, my colleague and I (Thomas & Irwin., under review) assessed the feasibility and utility of the *Cook It Up!* program. Specifically, in this research study we qualitatively assessed participants' (at-risk youth, community partners', and parents'/guardians') experiences with *Cook It Up!* throughout the duration of the program. Also, although this study did not lend itself to quantitative analysis, we wanted to gain some idea of the program's impact on youth participants' food literacy and self-

efficacy, and therefore implemented a simple, self-reported tool (pre-post) to assess each. Results indicated that all participants identified an increase in their cooking skills acquisition from pre-test to post-test and indicated an improvement in food literacy and self-efficacy with respect to cooking skills. Qualitatively, participants identified their program preferences under the themes of food literacy, connections, confidence, youth engagement, and relevance. Challenges were identified as at-risk youth behaviour and program location.

Although the formative evaluation (Article 2) suggested that the pilot program was targeting its objectives, the *Cook It Up!* Steering Committee wanted to determine if youth participants would continue to apply cooking and food literacy skills beyond the completion of the program because the ability to transfer skills learned in *Cook-it-Up!*'s unique educational environment is essential for participants to practice lifelong food literacy and cooking skills. If transferred successfully to their personal environments, these skills can help participants to nourish themselves and their families, thus gaining greater control over their health and well-being. Therefore, the purpose of Article 3 was to qualitatively assess, using Photovoice (PV) methodology, the facilitators and barriers at-risk youth participants experienced when applying their program-acquired cooking skills in environments external to *Cook It Up!*. Youth identified facilitators to the application of their cooking skills outside their involvement in *Cook It Up!* within the themes of: aptitude; food literacy; local and fresh; and connectedness. From the selected PV photos, youth named access to unhealthy fast foods as the only barrier to the application of their program-acquired cooking skills. Although neither a barrier nor facilitator, an additional theme of advocacy came from the data; youth spoke to the need

for opportunities to advocate for community-based cooking programs outside the traditional school environment and offered for high school credit.

Implications

When taken as a whole, while considering the inherent limitations of each article, a number of implications should be considered. First, as stressed by McKenzie, Neiger and Thackery (2009), meeting success within the field of health promotion is much more likely when interventionists apply the best currently available knowledge and skill to plan, implement, and evaluate theory-informed interventions. Article 1 represents the first manuscript of its kind, outlining the specific steps and practical applications of a model-guided and theory-informed community-based food literacy and cooking skills program for at-risk youth. As such, it provides a transparent outline for others to utilize as they see fit; the “how-to” manual resulting from this article has substantive implications for the efficacious delivery of similar offerings by other health care practitioner-researchers.

The findings from the formative evaluation (Article 2) suggest that, from the perspective of participants in the program, the *Cook It Up!* community-based cooking programs for at-risk youth was an important intervention to facilitate teaching this population of at-risk youth about food literacy and cooking skills. These findings imply that an intervention such as *Cook It Up!* might assist in the participants’ connection to the local agri-food industry while building essential life skills, self-confidence and self-efficacy. The application of food knowledge from “farm to fork”, that is, food literacy skills, may not only be relevant to the at-risk youth population targeted in the current study, but also to a wider range of target populations, from young children to older adults and many age groups in between.

Article 3's PV study made it clear that the food literacy and cooking skills gained through the hands-on intervention are, in fact, transferable to youths' lives outside the boundaries of the program itself. Furthermore, it is possible that the application of participants' cooking skills and knowledge about local, fresh ingredients might be sufficient to help deter them (even somewhat) from the strong persuasion of easily accessible fast foods. Given the ubiquitous obesity epidemic and at-risk youths' increased likelihood to battle with their weight compared to their non-at-risk counterparts, a program like *Cook It Up!* may have even more value than highlighted through this focused research study. For instance, the skills gained may lead to eating healthier and for less money, weight reduction, improvements in self-esteem and self-efficacy, having more employable skills, and potentially furthering their education; the benefits derived through participating in a food literacy and cooking skills program may be beyond what could be uncovered in this dissertation's investigation, and should be considered within future research.

Future Directions

The learnings and findings from this dissertation's articles suggest that *Cook It Up!* was an effective program for enhancing the food literacy and cooking skills of its youth participants. The program also provided an opportunity for a variety of community members and agencies to work in concert toward a common goal of improving the lives of at-risk youth. As is needed in any effective health promotion program (World Health Organization, 1986), when a variety of sectors are invested in reaching a common goal, there is greater possibility that the goal will be achieved and the program be sustainable. Since its completion, a number of programs have been devised and implemented using

the *Cook It Up!* model as a foundation. It is essential that these other interventions undergo larger scale and longer-term evaluations to determine more clearly their impact on the participants. Findings from larger numbers of participants and more programs can help researchers-practitioners to determine the larger-scale implications (health and otherwise) correlated to participating in these types of interventions.

More specific to the evaluation need described above is the need for validated tools to accurately measure food literacy gains and cooking skills acquisition among youth populations. The inclusion of these types of tools will help researcher-practitioners – such as the lead researcher of this dissertation, who is both a Registered Dietitian and a public health researcher – trust that the findings we are acquiring are accurate reflections of true changes occurring.

In addition to the need to evaluate each individual program using validated measures, as stressed above, it is critical that collaboration and communication between and among public health professionals charged to respond to the needs of vulnerable at-risk populations be established. In this regard, a current provincial (Ontario) initiative to devise locally driven and collaborate projects is underway, and the lead author of the articles within this dissertation is a key member who is helping to push this initiative forward, with particular emphasis on the inclusion and integration of food literacy and cooking skills programs for at-risk youth. Included in this initiative is the need to advocate for at-risk youth in service of making their views, needs, and preferences known; otherwise, the collective voice of this vulnerable population may continue to go largely unheard.

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Appendix A: How-To Manual

***Cook It Up!* How-to Manual
Planning, Implementing, & Evaluating
a Community-based Cooking Program**

London Community Resource Centre

London, ON



November 1, 2010

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The London Community Resource Centre would like to thank the Steering Committee for their direction throughout the entire *Cook It Up!* project. We have had some superb volunteers who have assisted, instructed, and supported the participants in cooking sessions and field trips. These volunteers demonstrated passion and commitment and we are very appreciative of their involvement. The chefs who volunteered their time and skills along with a dash of patience and kindness need to be acknowledged. These food professionals are so busy in their own businesses, restaurants, and personal lives but felt the need to give back to our program and did so very generously. Thank you! Local farmers, folks running farmers' markets and academic culinary programs, grocery stores, and other local agri-food industries must be recognized. The field trip component truly created the opportunity for our participants to finally understand all aspects of the food they eat, from farm to fork.

Acknowledgement, of course, to our funding agency, Ontario Agri-food Education Inc. The Healthy Eating Program provided us with the financial opportunity to promote nutrition and healthy eating of Ontario products by engaging with youth and non-traditional community partners in a unique, hands-on, and rewarding way. Thank you!

Also, a special thank you to our community partners who supported *Cook It Up!* financially and in-kind: Ontario Bean Producers Marketing Board; Ontario Pork; Healthy Living Partnership Middlesex-London; London Lawyers Feed the Hungry; Brescia University College (BUC); and the Middlesex-London Health Unit.

In addition, Brescia University College provided *Cook It Up!* with students who were eager to gain some valuable community volunteer experience, with research advice and expertise, and with direction for our Steering Committee. Reaching out to our community partners such as BUC ensures we are approaching our community work in a comprehensive and thoughtful way.

Over the past year, *Cook It Up!* was approached on two different occasions by two community agencies who were so impressed by the work of the participants in this initiative that they asked *Cook It Up!* to cater events they were hosting for their communities. The Boys and Girls Club of London and the Medway Community Centre deserve recognition for having the trust, faith, and insight to give the participants in *Cook It Up!* an opportunity to shine while representing their program. This empowerment is graciously acknowledged and appreciated by the Steering Committee and the participants in the program alike.

Our Program Coordinator was instrumental in building the bridges between us and the local chefs and farmers in our community. His dedication to *Cook It Up!* and enthusiasm for Ontario products essentially sold the program to everyone with whom he came in contact. Thanks Andrew Fleet, for your energy and commitment to *Cook It Up!* Finally, a special thank you to Heather Thomas, Public Health Dietitian at the Middlesex-London Health Unit and my community partner whose vision and passion ignited this project and ensured it was on track, well researched, and promoted at many conferences, in the media, and with our colleagues locally and across the province.

This initiative was very rewarding, challenging, and inspiring and could not have been achieved at this level of success without everyone's contribution and commitment. Thanks to each and every person involved in this program!

Introduction

The purpose of this how-to manual is to share with many communities the lessons we learned from our community-based cooking program for at-risk youth. The intention is to facilitate knowledge transfer to like-minded community agencies interested in enhancing food literacy. Our program met our community's needs and reflected what worked best for us. That is not to say that it won't work in your community; however, the premise is that this manual is a template for you to use what you feel is appropriate for your community and tailor other aspects to meet your community's needs. We see this program effectively being adapted for many groups, for example: single mothers, multicultural communities, older adults, people with disabilities, and any group requiring cooking skill development and food literacy awareness.

Please feel free to contact Linda Davies, Executive Director of the London Community Resource Centre (the lead agency of *Cook It Up!*) if you have any questions about our program and our approach. Also feel free to adapt the information in this manual as you see fit – this manual is just one way to create engaged, food literate communities.

Food Literacy is the ability to make healthy food choices by having the skills and knowledge necessary to buy, grow, and cook food.

- Food Literacy Project

Background: What is Cook It Up?

Cook It Up! was a community-based cooking program for at-risk youth focusing on education and skill building. *Cook It Up!* offered youth education and hands-on food experiences focusing on general nutrition, food safety, food preparation, food selection and cooking skills, and agriculture fieldtrip experiences to a variety of local farms

and farmers' markets. Educational topics include: General Healthy Eating and Safe Food Handling, Ontario-grown Spring, Summer, Fall, and Winter food themes, and a Graduation Celebration. The sessions included specific recipes featuring Ontario-grown foods, participation by local chefs, and fieldtrip opportunities to local farms and farmers' markets involving a variety of local food commodities. The facilitators targeted, coordinated, and implemented the activities within each module relevant to the needs and desires of the youth group. The final Graduation Celebration provided an opportunity for the sharing of learning experiences, networking with sustainable new partnerships (e.g., local farmers, local food commodity marketing associations, local chefs, and local farmers' markets) and media coverage which served to promote the support from and philosophy of Ontario Agri-Food Education Inc. via local print, radio, and television media outlets.

Purpose and Need for *Cook It Up!*

Poor dietary habits during adolescence may impact on day-to-day wellbeing and performance, achievement and maintenance of healthy weights, growth and development, dental health, among other health indicators (1-5). Research suggests involvement in preparing food for meals is related to more nutrient-rich eating patterns including higher intake of fruits and vegetables, higher intake of key nutrients, and lower intake of fat (6-11). These studies all assume youth have access to food on a regular basis and involve youth living in a family environment. What is less evident in the literature is youth involvement in food-related tasks such as food shopping and preparation (12-14), especially when the target population is at-risk youth in transition from the family home or foster care to independent living. These urban youth are at-risk for homelessness and often experience social, physical, and psychological issues, inclusive of addiction, which may present barriers to healthy lifestyle behaviours (15). The provision of a hands-on, practical life skills program with the purpose of building self-efficacy, knowledge, self-confidence, and self-esteem is perceived as an effective and necessary intervention for at-risk youth in transition. According to Bandura (16), one's perceived ability to perform behaviours, that is, self-efficacy, is enhanced when one has the practical and necessary skills for completion of the task and/or behaviour. *Cook It Up!* provided participants with the skills and experience needed to promote their existing skills and enhance their self-efficacy.

The adolescent age group has been overlooked for effective, skills-based programming offered in the community setting. As youth are transitioning from home, group homes, or foster care to independent living, they have a need for food purchasing, preparation and cooking skills. For the purpose of *Cook It Up!*, the term “at-risk youth” is described as youth at increased risk for a variety of physical and psycho-social issues including poor nutrition which, in turn, can exacerbate physical and psycho-social issues. Addressing at-risk youth by implementing a program with emphasis on healthy eating may be successful in addressing other social determinants of health with positive results regarding behaviour change. The target population in this pilot initiative was a vulnerable, urban group of youth. Many of these youth lacked an understanding of agriculture and food systems, and none of them had ever visited a rural setting. This project was essential to build an understanding of our local agricultural community through hands-on experiences that served to empower participants. The results from the formative evaluation of the program provided evidence-informed practice and knowledge that can be transferred to broader community agencies and groups, including public health units, local community resource centres, schools, the agricultural community, and other agencies demonstrating interest in the results.

The purpose of the *Cook It Up!* program was to:

- increase education and awareness of agriculture, healthy eating, and food preparation and purchasing skills among this unique target population
- introduce this target group to local agricultural and food systems
- crystallize the appreciation of local food systems, from farm to fork, among this target group
- increase the impact and awareness of the benefits of the Ontario agricultural industry

with key stakeholders and participants in the program

- build new and essential life skills
- create sustainable investment through networking with new partnerships (e.g., local farmers, farmers’ markets, local food commodity marketing associations, local chefs, community agencies)
- create supportive, positive learning environments
- provide evidence-informed practice, based on research outcomes
- create and distribute a “how-to” manual highlighting all details necessary for implementation of this project in other settings and with other target groups (e.g., post-secondary school students, young adults, Ontario Early Years Centres, parents, multicultural groups, older adults)
- offer knowledge transfer to other community groups (e.g., community resource centres, public health units, schools, workplaces, community agencies, agricultural groups, food commodity marketing associations)
- offer public messaging of the importance of local agricultural and food systems via local and extended media outlets (e.g., print, radio, television)

Getting Started

The *Cook It Up!* program was conceived because of the need in our community to provide food-related programming to at-risk youth given the absence of many opportunities for this population in this skill development area. While no formal needs assessment took place, conversations with community partners working specifically with youth agreed that food skills development was an important area of focus for this population.

One of the first steps in getting started on this initiative was to start defining the project in broad strokes to determine how best to approach food skills development. We had to determine in the literature the extent to which

food and cooking skills were relevant to the youth population. A literature search confirmed limited evidence with adolescent age groups (ages 13-18) and demonstrated the opportunity to create a pilot project focusing on youth ages 13-18 years. Broad strokes outlining key components of cooking programs from the literature were drafted and discussions with agencies working with youth, focusing on health and social services, and with an education background were polled to determine interest in a community-based cooking program for youth and to glean ideas for program content. The program started taking shape with input from these key stakeholders and eventually the lead agency was able to identify clearly and concisely the program ideas, structure, and funding.

Specific Steps:

- Literature search
- Decide upon target population and age group
- Decide upon broad program components to include in the project
- Key stakeholder meeting
- Specific ideas for pilot program generated
- Review funding opportunities available

Funding Proposals

The local food movement currently is very popular and relevant in Ontario. The agri-food industry has been engaging in various promotional campaigns, including media (e.g., Real Food Movement [<http://www.youtube.com/watch?v=dIsEG2SFOvM>]), health promotion strategies (e.g., National Nutrition Month 2010), food manufacturers (e.g., www.eatrealeatlocal.ca), and the explosion of food programming on The

Food Network, to name but a few. Additionally, attention to local food and the agri-food industry have garnered support from various funding agencies with focus on healthy eating. The Ontario Agri-food Education (OAFE) Inc., an arm of the Ministry of Agriculture, Food, and Rural Affairs, was the primary funding agency for *Cook It Up!* The main programs and services offered by OAFE include:

- Distribution of agri-food educational resources.
- Development of curriculum-based resources that articulate a clear agri-food message.
- Providing professional development services for educators across the province.
- Support and training of local agri-food volunteers and committees to enhance their efforts.
- Providing consultative support to major agricultural events such as the International Plowing Match and the Royal Agricultural Winter Fair.

In addition to these programs, in 2008 OAFE provided funding through their Healthy Eating Program, in which community agencies worked in partnership to promote nutrition and healthy eating of Ontario products. The purpose of this Healthy Eating Program Request for Proposal (RFP) was to solicit submissions from organizations wishing to undertake innovative projects with non-traditional partners that focus on communicating the public health benefits of Ontario grown products including their vitamin content and nutritional value.

Cook It Up! seemed to be a perfect fit for this funding opportunity. As such, the London Community Resource Center (LCRC) investigated the RFP in depth.

Alternative funding agencies were also approached. Below is a list of potential funders for consideration when developing a community-based cooking program:

- Local health unit;
- Food commodity marketing associations;

- Heart and Stroke Foundation – SPARK Together for Healthy Kids Advocacy grant;
- Local chefs' association;
- Academic institutions (e.g., colleges and universities);
- Ontario Trillium Foundation;
- Healthy Communities Fund (Ministry of Health Promotion and Sport); and
- Local Service clubs.

Once the best funding agency is selected for the project, the funding proposal can be drafted. This process enables the lead agency to determine how best to plan, implement, and evaluate the program. Careful consideration needs to go into the various stages of proposal development so as to not leave any considerations ignored.

In most proposals, there are clear guidelines regarding how to structure the RFP. These guidelines assist in organizing the project and identifying all aspects for consideration, from plans through to budget. Establishing a timeline with planning phases built in at the beginning and evaluation built in at the end ensures the project will be thorough and comprehensive. We allotted three months to finalize all aspects of our program planning prior to its official commencement. In addition, three months were allowed at the program's conclusion to complete all evaluation tasks and provide a final written report to the funding agency. Allowing time at the beginning and end of the program also provides flexibility in the program delivery and ensures program implementation is well considered prior to launching. Additional time at the beginning also offers opportunities to recruit Steering Committee members, the program coordinator, the participants, and provides the ability to promote the program effectively. Promoting the program helps generate interest in all active participants as well, from Steering Committee members, to community partners, to participants themselves.

Steering Committee Recruitment

Having the “correct” people around the table to assist in the program development is key to its success. We considered the RFP and requirements therein, specifically, the need to engage in new or non-traditional community partners with interest in promoting the local agri-food industry and the public health benefits of Ontario grown products. With this requirement in the forefront of our planning, we considered which key stakeholders would be important to include around the table. The following experts were considered for *Cook It Up!* Depending on how other community groups choose to approach their program development, different key stakeholders from these communities may be considered:

- Local chefs (for cooking skills education);
- Local farmers (for field trip opportunities and connection to local agri-food industry);
- Education specialists (active or retired, for enlightenment regarding how best to handle youth, especially at-risk youth);
- Social service agency representatives focusing on the youth population (to assist in participant recruitment and engagement);
- Public health representatives (to assist in proposal writing, research, evaluation, and nutritional aspects of the initiative);
- Food service industry representatives (to provide opportunities for field trips in this area);
- Academic representatives (to assist with research and evaluation);
- Community members with interest and skills in this project and/or target group (to ground the Steering Committee and ensure best interests of the participants and program goals are always being met); and

- Food specialty store owner (to provide business representation and possible program resources).

These unique groups from come from very different backgrounds and share different perspectives on working with the target populations. However, the Steering Committee, at the same time, shares a similar interest and passion for the local agri-food industry. For these reasons, the lead agency felt it was very important to include this diverse yet comprehensive and collaborative group of experts to construct the Steering Committee for *Cook It Up!* The Terms of Reference for the Steering Committee are outlined in Appendix A.

Program Coordinator Selection and Recruitment

Equally important as the Steering Committee recruitment, is the Program Coordinator selection and recruitment. We had the fortuitous opportunity to meet an individual who worked in the food service industry in our community who shared a passion for local food, education of youth, and cooking. His greatest strength was his connections to local chefs, farms, and farmers' markets. Working in a local restaurant (whose chef/owner was very engaged in local food such that he developed a daily menu based on the products he could source locally), our program coordinator proved invaluable in creating instant connections to chefs in our community. His passion for the program was evident and he easily "sold" the idea of engaging local chefs in teaching cooking skills to youth.

The opportunity to create new relationships with non-traditional partners was an important one for the lead agency. Recognizing the need to enhance existing food-related programming, LCRC was eager to find a way to build rapport with local chefs, farmers, and farmers' markets. It is, therefore, important to stress to your program coordinator to stretch beyond his/her comfort level and engage chefs,

farms, markets, and other field trip opportunities that one may not immediately know on a personal level so as to ensure broad and diverse opportunities for cooking and field trip development are sought. A job description of the program coordinator and relevant job activities is found in Appendix B.

We were fortunate to have a prior connection with the individual we hired to be our program coordinator for *Cook It Up!* Alternatively, we would have first connected with our community partners to see if any of them would have an individual in mind to recruit for this position. Given limited funding to do an extensive recruitment in newspapers and other typical methods of position recruitment, we would have considered placing a notice on a local volunteer association website (Charity Village www.charityvillage.com) which also offers a job posting recruitment function.

Chef and Volunteer Recruitment

Our program coordinator had existing connections to local chefs. However, we did approach a community contact who was involved in the local chefs' association as well to promote the need for chef recruitment. Equipped with information about the program, this contact not only assisted in recruiting a chef for the Steering Committee, but he also provided the chefs in this association with an overview of the initiative and engaged them in becoming involved in some capacity, whether through providing a cooking demonstration and skill session with the youth or getting the Steering Committee in touch with potential field trip opportunities.

In addition to this method of chef recruitment and selection, the Program Coordinator also reviewed the proposed "menu" of cooking skills and seasonal availability of local produce and paired local chefs with particular interest and/or skill in certain cooking methods and recipes. The Steering Committee insisted that any skills being taught be continuously built upon from session to session in order to enhance the participants' cooking skills ability from start to finish. This was relayed to chefs recruited to participate in the cooking skills development such that skills explained and demonstrated by the chefs were replicated by the youth on several different occasions throughout the duration of the program so as to build their confidence and ability to apply the skills in a variety of different

settings and in different recipes. The literature demonstrated the effectiveness of providing hands-on learning opportunities for participants with the option of building skills throughout the program as a successful implementation technique.

We were fortunate to have a strong connection to the University of Western Ontario and one of its affiliated colleges, Brescia University College (BUC). The Food and Nutritional Sciences program (undergraduate and Masters level) is offered at BUC. One of our Steering Committee members is also a professor at BUC and offered to promote the opportunity to volunteer in the *Cook It Up!* program with her students. Additionally, she taught a community nutrition course in which there is a community placement component. She recruited four students from that course to volunteer with *Cook It Up!*, not only to provide them with a community nutrition placement but also to ensure there was a good group of dedicated nutrition undergraduate students available to assist with volunteer duties.

In addition to the undergraduate students, we were also able to involve graduate nutrition students who were also completing their dietetic internship to assist in the program. The Public Health Dietitian from the Middlesex-London Health Unit supervised three dietetic interns who participated as volunteers at the cooking and field trip sessions and also contributed to proposal writing, research, and program content development. Details about program content development will be presented in another section of this how-to manual.

Because our program targeted at-risk youth, the Steering Committee thought it would be important to have some volunteers available to assist who had specific background working with this population. We were fortunate to recruit a Steering Committee member who also was a retired teacher who specialized in working with special needs children. Her background, patience, problem-solving strategies, and general demeanor with the participants in *Cook It Up!* was the perfect combination when working with youth that were easily distracted,

demonstrated behavioural issues, and generally were at times difficult to connect with. In addition to this retired teacher, we also had an active teacher with expertise in family studies and food and nutrition curriculum at the high school level who volunteered her time to assist with the cooking and field trips as well.

We placed two participants with one volunteer for each session. The volunteers' roles and responsibilities were:

- To help keep the participants on track in terms of completing tasks generated by the chefs;
- To help participants navigate through the field trip components when independently completing assigned tasks (e.g., collecting produce from the field, apple picking, grocery shopping);
- To review with the participants and record the components necessary for their "journals," specifically what they liked and did not like about the cooking or field trip session; what they learned about the session; what they prepared; whether or not they would independently prepare this dish at home; and what they learned from being involved in the program.;
- To monitor safety issues in the kitchen and remind participants of the need to be safe, clean, and organized.;
- To ensure cooking and field trip sessions run smoothly.;
- To assist the Program Coordinator or chefs in any way required.

The volunteers recruited were very positive about the program; however, some of them had never worked with at-risk youth in the past. For this reason, it was necessary to implement some sensitivity training. We worked closely with one of our community partners, Youth Opportunities Unlimited (YOU), which specializes in facilitating education and awareness groups with at-risk youth.

Since 1982 Youth Opportunities Unlimited has helped lead youth in London and Middlesex County toward success. This agency believes that investing in youth and strong communities are connected. Many youth need guidance and support to reach their true potential and

YOU works with business, community and government partners to address youths' most pressing needs. YOU provides youth with the training, skills development, support and referrals they need to develop their potential and lead positive lives. It is clear from YOU's mandate that the fit with *Cook It Up!* is a good one.

The sensitivity training was conducted by one of the youth outreach workers from YOU. She informed our volunteers of language issues, how to be mindful of treating at-risk youth with respect and kindness, and to remind them that the volunteers' involvement will eventually be ending when the program concludes. At-risk youth often have adults and others they look up to come in and out of their lives without warning and this may lead to the disruption of their routine, trust, and understanding of others within their social and family circles. Reminding the at-risk youth that the volunteers are not abandoning them but rather moving on to other opportunities is important so the at-risk youth do not feel deserted or discarded by yet another adult or young adult they have connected with in their lives.

If a future community-based cooking program is developed, it may also be useful to include at-risk youth in the development of the initiative so as to continuously tailor the needs of the group from week to week. Youth engagement is an important approach that we implemented through the weekly journal entries and connections with the Program Coordinator and volunteers. Youth engagement served to ensure we were on the right path with the program.

Youth engagement is the meaningful participation and sustained involvement of a young person in an activity, with a focus outside of him or herself. The kind of activity in which the youth is engaged can be almost anything - sports, the arts, music, volunteer work, politics, social activism - and it can occur in almost any kind of setting.

- Centers of Excellence for Children's Well-Being,
2009

Research and Evaluation Considerations

Because Cook It Up! was a unique program in our community, the Steering Committee felt it would be important to conduct an evaluation of the initiative. With expertise in research and evaluation around our Steering Committee, the local Public Health unit, University of Western Ontario (UWO) and BUC worked together to develop an ethics proposal for consideration prior to starting any research project. Ethical approval for all research projects in *Cook It Up!* was approved by the Office of Research Ethics at the University of Western Ontario.

The research team decided to conduct two qualitative studies and one quantitative study from Cook It Up! First, a formative evaluation of the program was developed. This research focused on conducting in-depth interviews with all participants in the program: Steering Committee members, chefs, farmers, field trip operators, volunteers, and participants. The lead investigators were interested in determining what worked well in the program, what did not, and how the program could be adapted to other groups in different communities, and overall, how to improve *Cook It Up!* Secondly, a photovoice study was implemented to determine how the Cook It Up! program had served to enhance the participants' cooking skills. Along similar lines as the photovoice research, a pre- and post-test cooking skills assessment was conducted to determine any changes in cooking skills among the participants at the beginning of the program compared to at the completion of this manual. At the time of the publication of this manual, a fourth qualitative study focusing on perspectives of parents/guardians was under review by the Office of Research Ethics at the University of Western Ontario and therefore is not included here.

Full data analysis of these research projects was underway at the printing of this how-to manual and can be shared with interested parties once interpreted and written up. Please contact Heather Thomas if you are interested in finding out the results from this research.

Documents related to the research aspect of *Cook It Up!* are available in Appendices C through P (Letter of Information for community partners and Participants; Semi-structured interview guide for community partners and participants; Demographic Survey and Pre- and Post-test Questionnaires; Camera Orientation

Session; Consent Form for Photovoice; Consent Form; Ethical Issues in Photovoice; Letter of Information for Photovoice; Rights and Responsibilities of Photovoice; Semi-structured Discussion Group Guide; SHOWED Document). Table 1 outlines research and evaluation plan and activities.

Policies and Procedures

The Steering Committee spent considerable time thinking about which policies and procedures needed to be implemented to keep the participants, volunteers, and all other community partners safe when participating in *Cook It Up!* When working with kitchen appliances and utensils, the opportunity for injuring oneself might present itself from time to time. The policies and procedures related to preventing and treating injuries were some of the first ones to be developed. In addition, cooking with certain ingredients also provided potential challenges due to food allergies or intolerances. We needed to establish proper health information records to identify potential food allergens and other relevant health history that would facilitate our understanding of how to treat certain circumstances. All staff and volunteers involved in the cooking and field trip sessions, especially the Program Coordinator, reviewed these documents thoroughly should an emergency arise. To gather the correct information for these forms, the Steering Committee consulted existing health forms and included relevant information and sections from those forms in the development of the ones for this program. The Middlesex-London Health unit was an important partner in the development of medical/health forms given the focus of this agency.

The other documents that generated much discussion from the Steering Committee were the forms related to Code of Conduct and managing behaviour. These forms were put into place given the at-risk population with whom we were engaging. These documents were adapted from similar ones utilized at a program facilitated by one of our Steering Committee members

who also worked with at-risk youth in his agency. The Steering Committee discussed at length the purpose of *Cook It Up!* in reaching at-risk youth and how we wanted to give the participants sufficient “chances” before taking drastic measures with respect to their involvement in the program. That said, we also did not want the behaviour of one or two participants to impact on the learning and skill development of others. There were circumstances in which one of our participants acted out on occasion and was inappropriate. It was decided at the Steering Committee level that our volunteer who had experience working with special needs children would work one-on-one with this particular participant to assist in curbing her behaviour. The volunteer and participant pairing in this situation proved to be very positive and the participant who was problematic improved her behaviour significantly such that she did not need to be removed from the program. At all stages in the discussion about this particular participant, parental/guardian involvement was included and encouraged. The situation was resolved and this participant remained in the program for its duration.

Appendices Q through V highlight some of the key policies and documents we used in *Cook It Up!*

Participant Recruitment Strategy and Program Promotion

Because the program was targeting at-risk youth and also involved significant time and participation commitment, we wanted to ensure the participants involved in this pilot project were fully committed to the program, from start to finish. To this end, we had an online application form available for potential participants to complete and submit (Appendix W). Paper copies were also available to those without internet access. In addition to the application form, the potential participants met with a few members of the Steering Committee who conducted informal interviews with the youth to determine whether or not they were the right fit for the program and if they understood the time commitment as well. At this interview, youth were informed about the research projects and asked to consider if they might have interest in participating in those as well, at a later date. Even though participants were not obligated to become involved in the research component of *Cook It Up!* we felt it was only fair to inform them

of this potential so that they could make a full decision about their possible involvement in the program, should they be selected.

The Steering Committee deliberated about the need to interview potential participants and decided that given the pilot nature of this initiative and the desire to share our findings broadly, we wanted to ensure some level of success in the process and as such, decided to interview participants to determine fit, interest, enthusiasm, and commitment to the program. This proved to be an effective way to retain participants as well. We had only one participant withdraw from the initiative due to unforeseen personal difficulties.

In terms of program promotion, we utilized our local media outlets to introduce the program to our local community. We were interviewed in local newspapers and on television. We promoted the initiative on websites (LCRC, Middlesex-London Health Unit, and www.healthylivinginfo.ca) and on Facebook and Youtube. In all media outlets, we directed interested parties to the LCRC website to complete the application form and learn more about the program. Two website articles to date were published on the Middlesex-London Health Unit, Healthy Living Partnership Middlesex-London, and London Community Resource Centre websites (Appendix X).

Promotion of *Cook It Up!* also occurred via word of mouth. With a strategically selected Steering Committee with working background in diverse sectors within our community, we were able to promote the program through our networking groups, community partners, colleagues, and professional associations. This informal sharing of the program served us well in that we were able to describe the program in good detail with others who were in contact with groups focusing on at-risk youth. Steering Committee members working in the social service industry were able to identify potential youth participants directly and those youth, once learning more about the initiative could apply should they choose to do so. We originally recruited nearly 30 youth but through self-selection out of the

program (due to a variety of different reasons, e.g., time commitment, program components, conflicts with other activities) the final number of participants was nine. There was attrition of one participant due to personal issues. The remaining eight participants remained with the program from start to finish.

While it may seem that eight participants is a small number of youth, our Program Coordinator reassured the Steering Committee on a regular basis that this number was a very comfortable one to work with. At-risk youth can be very easily distracted and having more than eight participants may have created a difficult learning environment and frustration among volunteers, chefs, and others in the program. It is necessary to keep in mind that for each session, there were eight participants, a minimum of four volunteers, the Program Coordinator, Steering Committee chef, and guest chef. A maximum of about 15 people is desirable. If larger numbers of participants are considered, cooking space becomes a very important consideration. Careful consideration of the target group selected and their unique needs will determine the number and expertise of volunteers at each session.

Program Development

The original development of the program commenced with the proposal writing. Using the proposal as a template, we focused on incorporating seasonal local foods into cooking sessions and field trips to farms and farmers' markets. The Program Coordinator also considered which specific professional chefs to recruit given the season, their expertise, and their availability. Table 2 outlines the module topics and brief description / themes for each cooking and field trip session. This information is based on opportunities to highlight local seasonal produce on field trips and to demonstrate how to use this produce in the cooking sessions.

The original program concepts were developed by dietetic interns supervised by the Public Health Dietitian on our Steering Committee. From this point, the Steering Committee put the Program Coordinator in charge of fine-tuning each session. Recipes selected for each cooking session were decided upon by the Program Coordinator and professional chef on our Steering Committee. Ingredient lists, equipment required, and other cooking considerations were also discussed by these two professionals prior to each cooking session. Additionally, potential

field trip opportunities were considered and connections to the appropriate farmers were made accordingly.

The Program Coordinator contacted local chefs to see if they had interest in volunteering their time to instruct the participants on a variety of cooking techniques while showcasing local, seasonal produce. There was never any difficulty recruiting chefs to lend their skills, expertise, and enthusiasm to the program and its participants. In fact, some chefs enjoyed the experience and their involvement so much that they asked to return to the program on an ongoing basis. This commitment from some of the chefs demonstrated to the participants that *Cook It Up!* was an important initiative and one valued by the local chefs participating in the program. Even though there was great interest in the program by some returning chefs, it is very important to continue to recruit additional chefs to the initiative to avoid potential volunteer burnout and to diversify community capacity. Table 3 highlights key Program Coordinator activities.

Budget

The budget for Cook It Up! included details about the following components:

- Project management;
- Program Coordinator;
- Cooking Sessions;
- Fieldtrips;
- Transportation; and
- Graduation Ceremony.

Cash and in-kind contributions from community partners for all of the above components were also identified in the proposal. Additionally, time and in-kind allotments for many operational costs were considered. Some of these in-kind expenses included:

- estimated wages for Steering Committee members attending meetings;

- meeting space;
- office space, supplies, and equipment;
- financial management of all funding;
- human resource management and supervision;
- promotion of program;
- reporting responsibilities to funding agencies;
- kitchen space;
- transportation;
- community consultation and advisory roles; and
- orientation of volunteers, interns, Program Coordinator, Steering Committee members.

Depending on the capacity of your community to contribute in different ways to a community-based cooking program, you may or may not need to include all components that we did in our proposal. We would recommend reaching out to your community partners to determine how they can assist in the implementation phase of your initiative.

For specific budget information related to Cook It Up!, please contact Linda Davies, Executive Director at London Community Resource Centre.

Sustainability Plan

The overarching principle of the sustainability plan originates with building community capacity and strong community partnerships. Having your community behind your effort facilitates the sustainability even during times of limited financial resources. Your community partners champion your program and serves to connect the correct partners at the beginning of the program. Having these enthusiastic key stakeholders around the table ensures that the initiative is fostered well and grows effectively. Greater community involvement creates less demand on one agency or group to pull the project together independently. Many funding opportunities now mandate collaborative community efforts as they recognize that many parts make a strong entity. It is very important

to strategize which key stakeholders need to be approached to become involved in your project.

We have some positive examples that generated wonderful opportunities for the *Cook It Up!* program. For example, one of our Steering Committee members was a business owner of a specialty food shop. She was able to approach some of her suppliers for donations of kitchen utensils to supply our kitchen as well as provide gifts for the participants at the end of the program. On more than one occasion, the farms we visited on the field trips allowed us to have produce from their fields to use in the next cooking session. This helped to reduce our budget for food costs.

Administratively, community partners and Steering Committee members provided access to administrative support, mail outs, office supplies, and meeting space. It is important to ask community partners and Steering Committee members how and what they can contribute to the program beyond attendance at meetings.

Unexpected Opportunities

On two separate occasions, the *Cook It Up!* program was approached to cater community events. The first event was the launch of a newly renovated community arena and meeting space. The group was asked to prepare a vegetarian chili and whole wheat rolls for a group of approximately 170. For this event, the chef on our Steering Committee worked with the youth to discuss how to develop a catering menu including shopping lists, equipment required, kitchen and service area layout, and other details relevant to the event. The day before the event, the participants travelled to the event location and completed the food preparation so they would be prepared to cook it the next day. The participants decided who would be “back of house,” preparing the food and getting it ready for service and who would be “front of house,” delivering the food and mixing with the people attending the event.

For this event, the Steering Committee members decided to purchase professional chefs’ jackets for the participants, one of the many “perks” for their involvement in the program. The participants were not told about the special jackets until the day of the event. On the day of this catered event, the jackets were presented to the youth and as they put them on, they seemed to stand up taller and recognized the importance of the jacket – they were professionals and represented *Cook It Up!* in the community. The sense of pride and respect for each other was palpable. We were very pleased we invested some funding to purchase these special jackets.

At this event, The Honourable Chris Bentley, Attorney General for the Province of Ontario, was present and met with the participants to congratulate them for their involvement in the *Cook It Up!* program. It was a great opportunity for the participants to meet Mr. Bentley and for him to see community youth engagement in action.

The second catering event occurred during National Youth Week. It was fitting that the participants in *Cook It Up!* were asked to prepare and serve meals for 40 members at the local Boys and Girls Club. The youth prepared homemade lasagna and Caesar salad. They performed all duties associated with the catering once again and performed these tasks with confidence and excitement.

In addition to these events directly involving the participants of *Cook It Up!*, Linda Davies and Heather Thomas had the opportunity to promote the program at a number of conferences and workshops across the province. They presented to delegates the purpose of the program; recruitment strategies for Steering Committee members, chef volunteers, and participants; key learnings to date; and some of the early results from the research program. Delegates were very interested in the program and eagerly awaited the release of this manual! Some of the workshops and conferences attended included:

- University of Western Ontario, Health and Rehabilitation Sciences Annual Research Day (London, February 2010);
- FoodNet Ontario conference “Bring Food Home” (Kitchener, March 2010);
- Ontario Society of Nutrition Professionals in Public Health Annual Nutrition Exchange (Niagara-on-the-Lake, May 2010);

- FoodNet Ontario “Making Connections” workshop (London, November 2010); and
- Provincial Consortium on Youth In Recreation “MBA 10 Symposium” (Barrie 2010).

Troubleshooting

Although the program was very well received and exciting to contribute to, there have been some challenges along the way. However, we viewed these difficulties as lessons learned and hope that other community groups can learn from our challenges to strengthen their proposed initiatives.

One of the greatest challenges we faced was the **cooking location**. We needed to be adaptable on a number of occasions until we found a suitable, health unit approved location that was centrally located and large enough to accommodate our group. We have created a link with a local faith-based organization who have opened their doors to our program. They were interested in engaging with youth and felt that *Cook It Up!* was an excellent program in which skill development of at-risk was being met.

Many faith-based organizations have superb kitchens that are not being utilized during the week nights. Careful consideration must be given when approaching these organizations because many of them have programming requiring the use of their kitchens throughout the week (e.g., for community dinners). As such, you may need to be flexible in terms of changing your day and/or time of conducting your program.

The Steering Committee was very dedicated to ensure the project **stayed on track** from start to finish. Given the popularity of *Cook It Up!*, there were a number of potential initiatives and opportunities the youth could have been involved in but these opportunities did not necessarily align with the original purpose and goals of the program. The Steering Committee ensured the Program Coordinator remained true to the original concept. That said, we were

flexible to embrace opportunities that enhanced that concept, for example, in the two catering events that presented themselves to our group.

We found it important to ensure that we had the **expertise** to deal with situations that arise that are unique to the population with whom we were working. Our Steering Committee was the first point where this philosophy was applied. Ensuring diversity among Steering Committee members' backgrounds while meeting specific needs of our population ensured we were well prepared to handle any challenges encountered.

As with any project, **managing the budget** effectively is key to project success. We were very fortunate to have a very diligent Executive Director of the host agency for *Cook It Up!* to stay on top of our spending and to ensure that reports and other tasks associated with the administration of the program were also in line. If the Project Coordinator does not have these specialized skills, it is very important to find someone else involved in the project to ensure budget is adhered to strictly.

From time to time, front line staff and volunteers involved in the project are unable to attend due to illness or other family emergencies. In these cases, it is essential to have a **back up plan** so that the program still runs on time and on schedule. Unforeseen circumstances create the opportunity to teach program participants that life sometimes just “happens” and they need to be flexible and adaptable so that they can cope with changes to their regular schedule. For the volunteers and Program Coordinator, we established a **“buddy system”** so we could still facilitate the program with the same number of affiliated staff and/or volunteers.

While all these contingency plans are important, we also need to stress the importance of being flexible to deal with the unexpected events that may occur. Instead of cancelling the program from time to time due to absence of the Program Coordinator or volunteers, we ensured that “the show must go on” and put in place plans to continue running the program as smoothly as possible. We felt that this approach would demonstrate to the at-risk youth that we were as committed to *Cook It Up!* as they were. It was important for them to see that we would not let them down and that we valued their attendance.

Closing Thoughts

This how-to manual outlines how we approached the development of a community-

based cooking program for at-risk youth. It provides a possible template for your consideration and for you to adapt or modify to meet your community's identified needs. As we approached the project right from the very beginning, we had the development of this how-to manual in the back of our minds. We took notes about what needed to be included in the manual, as well as what could be excluded. We wanted this resource to be comprehensive and instructive but never too arduous to use in your own community.

Communities need to advocate for food literacy programming. Delivering supportive learning environments where children, youth, adults, and seniors can engage in all aspects of food, from how it is grown and harvested to making it taste delicious on your plate ensures that all populations have the necessary food literacy skills for a healthy life. Developing a sound food literacy policy

that provides these required elements for such a program is key to its success.



Table 1: Evaluation Plan and Success Indicators

The Evaluation Plan and Success Indicators provide some direction for program planning, implementation, and evaluation.

Measures of Success	Indicators
<i>Planning and Implementation:</i>	Local chefs' involvement and ongoing commitment to the project
Generation of interest from potential community partners	Successful youth recruitment and participation in Cook It Up! Community partners provision of financial contributions to Cook It Up!
Local, high profile chefs	Corporate donations received to sponsor Cook It Up!
Sponsoring agencies	Regular review of the implementation process to ensure progress towards indicators of success and make adjustments as necessary to reach objectives
Pilot Site Agency	Generated interest within the local community (urban and rural) regarding the project
Project Coordinator	Repeated participation by youth in multiple modules
Steering Committee	Repeated participation by farmers visited on fieldtrips (this indicator demonstrates that the fieldtrip experience was rewarding)
Community volunteers	Feedback from youth to facilitator(s) after each session
Local farmers	Number of media interviews (paper, radio, television)
Local farmers' markets	
Media awareness and attention	

<p><i>Formative Evaluation:</i></p> <p>Completed “How-to” manual incorporating all suggestions for improvements</p> <p>Qualitative research</p> <p>Knowledge transfer of research results at provincial/national conferences and relevant professional meetings</p>	<p>Rapport generated with youth participants encourages honest participation in formal and informal evaluations</p> <p>Agencies request “how-to” manual for implementation of similar programs in their communities</p> <p>Demand for the “How-to” manual generated by community groups</p> <p>Successful recruitment for in-depth interviews with participants and stakeholders</p> <p>Rich, contextual data generated from participants in formative evaluation</p> <p>Acceptance of abstract from this project at provincial and national academic and professional conferences</p> <p>Completion and presentation of evaluation results at Board of Directors’ meetings; Board of Health meeting; annual public health conference; other relevant conferences</p> <p>Sharing of experiences with peers and colleagues, personally and professionally</p>
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Table 2: Program Activities

Module Topics	Brief Description / Themes
<p>(1) Spring</p> <ul style="list-style-type: none"> • General Healthy Eating relevant to Ontario-grown Spring food products • Safe Food Handling • Recipes selection • Fieldtrip choices • Evaluation – feedback from group to coordinator/facilitator 	<p>Planning and planting crops; agriculture overview; “farm to fork” discussion; Promote the use of locally grown foods; 2 cooking sessions during each month of this season (i.e. 6 cooking sessions in total); 1 fieldtrip per module</p> <p>FOOD DEMONSTRATION: Choose seasonal recipes incorporating foods from each of the four food groups</p> <p>EARLY SPRING FIELDTRIP IDEA: Sugar Bush, asparagus farm, local farmer’s market</p>
<p>(2) Summer</p> <ul style="list-style-type: none"> • General Healthy Eating relevant to Ontario-grown Summer food products • Safe Food Handling • Recipes selection • Fieldtrip choices to local Ontario farms • Evaluation – feedback from group to coordinator/facilitator 	<p>Get Fresh...Eat Local farm map; what’s in season; why buy local; indigenous knowledge; Promote the use of locally grown foods; 2 cooking sessions during each month</p>

Module Topics	Brief Description / Themes
	<p>of this season (i.e. 6 cooking sessions in total); 1 fieldtrip per module</p> <p>FOOD DEMONSTRATION: Entire Meal on the Barbecue incorporating foods from each of the four food groups</p> <p>SUMMER FIELDTRIP IDEA: Pick Your Own farm</p>
<p>(3) Fall</p> <ul style="list-style-type: none"> • General Healthy Eating relevant to Ontario-grown Fall food products • Safe Food Handling • Recipes selection • Fieldtrip choices to local Ontario farms • Evaluation – feedback from group to coordinator/facilitator 	<p>Fall harvest; food preservation; Global food system; Promote the use of locally grown foods; 2 cooking sessions during each month of this season (i.e. 6 cooking sessions in total); 1 fieldtrip per module</p> <p>FOOD DEMONSTRATION: using root vegetables in soups and stews and incorporating foods from each of the four food groups</p>

Module Topics	Brief Description / Themes
	<p>FALL FIELDTRIP IDEA:</p> <p>Farmers Market</p>
<p>(4) Winter</p> <ul style="list-style-type: none"> • General Healthy Eating relevant to Ontario-grown Winter food products • Safe Food Handling • Recipes selection • Fieldtrip choices to local Ontario farms • Evaluation – feedback from group to coordinator/facilitator 	<p>Promote the use of locally grown foods; 2 cooking sessions during each month of this season (i.e. 6 cooking sessions in total); 1 fieldtrip per module</p> <p>FOOD DEMONSTRATION:</p> <p>Using meat alternatives and other vegetarian dishes and incorporating foods from each of the four food groups</p> <p>TRIP IDEA: Local produce farm (choose from 1 of 30+ local farm map contacts)</p>
<p>(5) Graduation Celebration</p> <ul style="list-style-type: none"> • Sit-down dinner celebration for participants and all community partners • Media release promoting success of OAFE sponsored program • Invitations to all local chefs who participated or could be potential future partners, local farmers visited, YOU Board of Directors, Steering Committee, etc. • Certificates of Achievement and Cookbooks provided to all participants 	<p>Media release to all local print, radio, television outlets to:</p> <ul style="list-style-type: none"> • promote the success of the project • promote OAFE initiatives and support for this specific initiative • recognize the participation of youth • recognize the support of key

Module Topics	Brief Description / Themes
	stakeholders <ul style="list-style-type: none">• promote preliminary research results

Table 3: Program Coordinator Activities

Program implementation through promotion of Ontario agri-food industry and community stakeholders.

Activity	Brief Description
Media Launch of Project	Media release to all local print, radio, television outlets to: <ul style="list-style-type: none"> • promote the project • promote OAFE initiatives and support for this specific initiative • solicit the participation of youth • recognize the support of key stakeholders involved in the projects
Development and coordination of modules	See Table 2 for details.
Participant recruitment and selection	Work with Host Agency to identify other community agencies targeting similar population and recruit and select participants for program
Assist in the “how-to” manual development	Document activities of the program, summarize, and edit manual for implementation with other community groups and target populations
Assist in resource gathering	Identify and contact key stakeholders to accumulate recipes, fact sheets, farm maps, food commodities information etc. for use in the program

Coordinate fieldtrip/farmers' market visits	Coordination of transportation arrangements, site selection
Recruit local chefs for program involvement	Identify and contact local chefs for involvement
Participate in evaluation	Work with Research and Evaluation Committee to discuss program evaluation; overview of research component with Research and Evaluation Committee; Solicitation of feedback from participants and Pilot Site Agency after each module completion; Revising the subsequent modules as necessary and as identified by participants and Pilot Site Agency

**Cook It Up! Community-based cooking program for at-risk youth Steering Committee
Terms of Reference**

Date of Approval: April 30, 2009

Chair: Linda Davies, Executive Director, London Community Resource Centre (LCRC)

Recorder: Heather Thomas, Middlesex-London Health Unit (MLHU)

Purpose: The role of the Steering Committee is:

To oversee the management of the project grant funds for the development of the Cook It Up! project;

To provide advice and guidance on the design and implementation of the project;

To provide and guidance on the research and evaluation of the project; and,

To share information, tools, and resources with project staff and community partners.

Frequency of Meetings: Meetings will be held monthly in the first three months of the project (April, May, June, 2009) and the bi-monthly for the next 12 months. At the end of the end of the 12 month period (June 2010), the meetings will be held monthly again for the last three months of the project (July, August, September 2010). Meeting dates for the entire duration of the project will be decided upon in the first Steering Committee meeting. Meetings will be scheduled for 1.5 to 2 hours. Additional meetings outside the scheduled times allotted for meetings will be called by the Chair.

Location of Meetings: The meetings will be held primarily at the LCRC. It is centrally located and there is free parking available.

Agendas and Minutes: The agenda and minutes will be kept electronically by the Chair and the Recorder. A hard copy of the minutes will be kept in a binder at LCRC. The recorder takes minutes at each meeting and prepares the minutes for the Chair. The Chair reviews the minutes and circulates them to the Steering Committee by email for corrections. Any corrections will be discussed at the next meeting, the minutes amended to reflect the changes.

Areas of Responsibility: Chair

The Chair will set and circulate the agenda to the Steering Committee at least one week prior to the meeting.

On the day of the meeting, the Chair will bring copies of the most current agenda for each Steering Committee member.

The Chair facilitates the meetings and collects email votes if there is no quorum.

The Chair will be responsible for tabulating email votes.

The Chair stores the documents and distributes agendas and minutes via email.

The Chair assumes responsibility of adding agenda items to the agenda as deemed necessary.

Areas of Responsibility: Steering Committee

Make decisions relating to finance, policy and strategic directions, within the administrative requirements of OHCC and the funder.

Be a resource to the project in terms of helping to identify key issues, resource people and organizations to be contacted.

Provide guidelines to the project regarding priorities, timelines, data collection and capacity-building.

Provide feedback on the design and evaluation of the project.

Composition: The Steering Committee will be comprised of at least one representative of each of the collaborating organizations:

London Community Resource Centre

Middlesex-London Health Unit

Youth

Farmer

Restaurant Owner / Chef

Social Service personnel working with at-risk youth

Teacher (active or retired)

Police Officer (active or retired)

Decision Making Protocol: Decisions regarding policy and strategic directions will be made by the Committee using a consensus decision-making process. Consensus of the Committee will be sought for decisions regarding project activities, financial matters, human resources and evaluation procedures. Consensus decision-making requires that all Committee members participate in reaching decisions, and that all committee members are in support of the decisions made.

Ideas and recommendations are brought to the table by Steering Committee members and an open discussion occurs. Decision is made by a vote and majority rules. Every attempt will be made for consensus. When consensus cannot be reached, the following options may be pursued: 1) the person or persons with dissenting opinions may step aside, thereby voicing their opposition to the decision while allowing it to be made; 2) the decision can be postponed to allow time for cooling off or further study; or 3) the issue may be discussed further in various ways including “go-arounds”.

Quorum must be present to confirm a decision. Quorum is 2/3 of membership. Email may be used for committee members unable to attend for an external vote to make quorum. The minutes will be attached to the email for context related to the vote. The Chair will be responsible for collecting the votes and tabulating the results. In the event dissenting opinion remains after the vote, the position will be reflected in the minutes. Failing consensus, LCRC, as the lead organization, may call a vote or take other steps to ensure the project is implemented in a timely and effective manner and that it conforms to the terms of the funding agreement.

In instances where the Terms of Reference and the Collaborative Agreement from the funding agency do not agree, the Collaborative Agreement shall be used to guide decisions.

Project Manager – Cook It Up! Job Description

Revised June 5, 2009

Position Title: Project Manager – Cook It Up! program

Number of Positions: 1

Position Commences: May 4, 2009 (contract position)

Salary: \$20.00/hour

Hours of Work Per Week: 20

Position Concludes: October, 2010

Driver's License Required: yes

Automobile Required: yes

Basic Education: post secondary education in areas of business administration and/or secretarial sciences or social sciences.

Skills and Experience Required: highly organized; experience and skills in foodservice and business; have the ability to be self-directed; work cooperatively with staff, volunteers, community groups, community partners, youth, and granters; excellent oral and written communication skills; ability to relate well with youth aged 13-18 years; excellent cooking skills; a minimum of 5 years experience in the foodservice industry, preferably as a chef or cook; ability to multi-task efficiently and effectively; be a productive and congenial team member

Working Conditions: office environment, kitchens, local farmers' markets and farms

Physical Demands: minimal (cooking, shopping, touring of local farms)

Responsible to: Executive Director, London Community Resource Centre; Steering Committee for Cook It Up!

Purpose of Position: The project manager will support the development of Cook It Up! a community-based cooking program for at-risk youth focusing on education and skill building. This initiative will include a pilot project implemented for groups of at-risk youth (aged 13-18) as well as the development of a "how-to" manual to be utilized by provincial organizations wishing to implement a similar project in their communities. Youth participants for the project will be selected from various local groups offering programs and services to this age group.

Details of Job Description:

1. Develop effective working relationships with staff, volunteers and community members, and youth.
2. Organize, facilitate and report back on community and volunteer committee meetings.
3. Participate as a member of the Steering Committee, taking part in all related meetings.
4. Meet with Executive Director or designate regularly to report progress.

6. Report any problems or concerns promptly to the Executive Director.
7. Carry out additional tasks pertinent to Cook It Up! as required.
8. Participate in relevant youth training and identify additional learning goals specific to Cook It Up! program development.
9. Document all experiences, work plans, and training sessions.
10. Abide by the Personnel Policies and Guidelines of LCRC.
11. Create education sessions to youth participants including: general nutrition, food safety; food preparation; food selection; cooking skills; and agriculture fieldtrip experiences to a variety of local farms and farmers' markets.
12. Topics in modules to be developed and offered include: General Healthy Eating and Safe Food Handling; Ontario-grown Spring, Summer, Fall, and Winter food themes; and a Graduation Celebration. The modules will include specific recipes featuring Ontario-grown foods, participation by local chefs, and fieldtrip opportunities to local farms and farmers' markets involving a variety of local food commodities.
13. Plan and coordinate the final Graduation Celebration to showcase youths' learning experiences, networking with sustainable new partnerships (e.g., local farmers, local food commodity marketing associations, local chefs, and local farmers' markets) including provision of media coverage in conjunction with the promotion and administrative assistant at LCRC.

***Cook It Up!* program for Youth**

Investigators:

Heather Thomas, MSc, RD, PhD Candidate, Middlesex-London Health Unit

Dr. Jennifer Irwin, PhD, Faculty of Health Sciences, University of Western Ontario

Dr. Trish Tucker, PhD, Middlesex-London Health Unit & Faculty of Health Sciences, University of Western Ontario

Dr. Danielle Battram, PhD, Foods and Nutritional Sciences Division, Brescia University College, UWO

Background: Cook It Up! is a community-based, education and skill-building program for at-risk youth (13-18 years). It is a fun and practical program offering nutrition information, food safety, food preparation and selection and cooking skills, taught by some of London's best local chefs. Through agricultural field trip experiences to a variety of local farms and farmers' markets, participants will be able to explore future employment potential in a variety of agricultural and food service environments, as well as to gain an understanding of where our food comes from, and how it gets from farm to plate. Investigators at the Middlesex-London Health Unit and the University of Western Ontario are conducting research on the *Cook It Up!* program for youth in which you were involved. The purpose of this study is to assess Community Agencies' and Partners' experiences with the program in service of improving all aspects of the program. If you have participated in *Cook It Up!* in this capacity, the research team would like to hear your ideas.

interview at a location convenient to you. This will be a one-on-one interview and it will last about 1 hour. We will be audio-recording the discussion so we don't miss anything. The audio-recording will be transcribed and a computer program called NVivo will be used to help find the themes from the information provided in the interviews. Also, we will be collecting information from you before the Cook It Up! program starts and after it ends to compare the information you provide us before and after the program. We will also be collecting information about you in a demographic survey which will give us a bit more information about who was interested in participating in the Cook It Up! program

Alternatives and your right to withdraw from the study: Your participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, and ask to stop the recording at any time during the interview, or withdraw from the study at any time. Your decision will not influence your participation as a community partner in other projects now or in the future.

Possible benefits and risks to you for participating in the study: There are no known risks to you associated with your participation in this study. Possible benefits for you include having the opportunity to contribute to developing the “how-to” community resource manual that will be promoted and made available for local and provincial distribution. You do not waive any of the legal rights you would otherwise have as a participant in a research study.

Confidentiality: We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. Representatives from the University of Western Ontario Health Sciences

monitor the conduct of the research. We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. We will keep all data in a secured place for five years after the study results have been published. Data will be destroyed at the end of this time period. All computer data will be erased and all written/paper data will be shredded.

Costs and compensation: There is no cost to you for participating in the study. To acknowledge your contribution to the study, you will receive a small token of appreciation.

Publication of the results: When the results of the study are published, your name will not be used. If you would like to receive a copy of the overall results of the study, please put your name and address on a blank piece of paper and give it to the researcher present at the in-depth interview.

Contact persons (should you have any further questions about the study):

Heather Thomas, MSc, RD

[REDACTED]

[REDACTED]

Dr. Jennifer D.

Irwin, PhD

[REDACTED]

[REDACTED]

[REDACTED]

Dr. Trish Tucker, PhD

[REDACTED]

[REDACTED]

Dr. Danielle

Battram, PhD

[REDACTED]

[REDACTED]

[REDACTED]

* If you have any questions about your rights as a research participant or the conduct of the study you may contact the Office of Research Ethics at [REDACTED] or by email at [REDACTED].

This letter is for you to keep.

You will also be given a copy of the consent form once it has been signed.

***Cook It Up!* program for Youth**

Investigators:

Heather Thomas, MSc, RD, PhD Student, Middlesex-London Health Unit

Dr. Jennifer Irwin, PhD, Faculty of Health Sciences, University of Western Ontario

Dr. Trish Tucker, PhD, Middlesex-London Health Unit & Faculty of Health Sciences, University of Western Ontario

Dr. Danielle Battram, PhD, Foods and Nutritional Sciences Division, Brescia University College, UWO

Background:

Cook It Up! is a community-based, education and skill-building program for youth (13-18 years). It is a fun and practical program offering nutrition information, food safety, food preparation and selection and cooking skills, taught by some of London's best local chefs. Through agricultural field trip experiences to a variety of local farms and farmers' markets, participants will be able to explore future employment potential in a variety of agricultural and food service environments, as well as to gain an understanding of where our food comes from, and how it gets from farm to plate.

Researchers at the Middlesex-London Health Unit and the University of Western Ontario are looking at the *Cook It Up!* program you recently participated in. We want to find out what you liked and didn't like about the program so we can improve it. Your help will give us lots of information to improve this community-based cooking program. If you have participated in *Cook It Up!*, the research team would like to hear your ideas.

What will happen in this study:

you. This will be a one-on-one interview and it will last about 1 hour. We will be audio-recording the discussion so we don't miss anything. The audio-recording will be transcribed and a computer program called NVivo will be used to help find the themes from the information provided in the interviews. Also, we will be collecting information from you before the Cook It Up! program starts and after it ends to compare the information you provide us before and after the program. We will also be collecting information about you in a demographic survey which will give us a bit more information about who was interested in participating in the Cook It Up! program.

Alternatives and your right to withdraw from the study:

Your participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, and ask to stop the recording at any time during the interview, or withdraw from the study at any time. Your decision will not influence your access to community programs or services you may be currently receiving, or may choose to partake in the future.

Possible benefits and risks to you for participating in the study:

There are no known risks to you associated with your participation in this study. Possible benefits for you include having the opportunity to contribute to developing the "how-to" community resource manual that will be promoted and made available for local and provincial distribution. You do not waive any of the legal rights you would otherwise have as a participant in a research study.

Confidentiality:

We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. Representatives from the University of Western Ontario Health Sciences Research

written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. We will keep all data in a secured place for five years after the study results have been published. Data will be destroyed at the end of this time period. All computer data will be erased and all written/paper data will be shredded.

Costs and compensation:

There is no cost to you for participating in the study. To acknowledge your contribution to the study, you will receive a small token of appreciation.

Publication of the results:

When the results of the study are published, your name will not be used. If you would like to receive a copy of the overall results of the study, please put your name and address on a blank piece of paper and give it to the researcher present at the interview.

Contact persons (should you have any further questions about the study):

Heather Thomas, MSc, RD

Dr. Jennifer D.

Dr. Trish Tucker, PhD

Dr. Danielle

[REDACTED]

Irwin, PhD

[REDACTED]

Battram, PhD

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

* If you have any questions about your rights as a research participant or the conduct of the study you may contact the Office of Research Ethics at [REDACTED] or by email at ethics@uwo.ca.

This letter is for you to keep.

You will also be given a copy of the consent form once it has been signed.

Semi-Structured Interview Guide – Community Partners

The purpose of this interview is to gain an understanding of your experience with the *Cook It Up!* program so the program can be modified to ensure it is as useful as possible for all participants and community partners.

For Community Agencies and Community Partners participating in Cook It Up!:

I'd like to ask you about the logistics of booking the fieldtrip:

1. How did the process of booking the fieldtrip work for you?

Probes:

- Deciding on the destination
 - Arranging and confirming transportation
 - Effectiveness of the fieldtrip re: introducing youth to local agricultural industry
 - Other issues related to booking the fieldtrip
 - What worked well with the Cook it Up! program?
 - What did not work well?
2. Why did you become involved in the *Cook It Up!* program?
 3. What barriers or challenges, if any, restricted your involvement or may have limited your involvement in any way?
 4. How did being involved in the program benefit your agency?
 5. How effective was the Steering Committee in meeting its objectives for this project? Please say more?
 6. How did you find the Steering Committee meetings? How would you have

8. How could this program be adapted to other target groups in other communities?
9. If you could change anything about this program, what would it be?
10. Please tell me anything else about the cooking program that you'd like to share with me? Is there anything we missed?

Semi-Structured Interview Guide – Youth Participants

The purpose of this interview is to gain an understanding of your experience with the *Cook It Up!* program so the program can be modified to ensure it is as useful as possible for all participants and community partners.

For youth participants: We are asking you questions about Cook It Up! to try to make it better.

1. What did you like best or value most about the cooking program? Why?

Prompts:

- Cooking sessions with local chefs
- Field trips to local farms
- Field trips to farmers' markets
- Planning what food we would be preparing
- Shopping for food
- Eating the food we prepared
- Other aspects of the program
- Making new friends
- Learning about healthy eating
- Learning about food preparation
- Trying new foods
- Improving cooking skills

2. What did you like least or value least about the cooking program? Why?

3. How was Cook It Up! beneficial to you? Why was it good to be a part of Cook it Up!

- How did it impact your life?
- How did it improve your cooking skills?
- What did you get out of the program?

the program, what would it be?

5. How did your group use the curriculum components (modules) developed for the program?

- Lesson plans
- Activities
- Recipes
- Fieldtrip information

6. What is different for you since being in the *Cook It Up!* program? What, if anything, is different about how you're eating? What, if anything, is different about where you're purchasing?

7. What did you get out of the program?

8. In what ways did being a part of this program impact on your feelings about yourself?
Please say more?

9. What recommendations would you make to improve this program so it could be adapted to other target groups in other communities?

10. Is there anything else you'd like to tell us about your involvement in the *Cook It Up!* program?

Assessment (Participants) adapted from Region of Waterloo Public Health

1. Are you attending school? Yes No

If yes, what is the name of your school?

What grade are you in? _____

2. What is your family situation? (please check)

Single-parent

Double-parent

Guardian-led

I live by myself

I live with a roommate(s), but not with my parent(s)/guardian(s)

I live in a group home

Other (please specify):

3. To which ethnic or cultural group do you belong? (please check)

White

Southeast Asian (e.g., Cambodian, Indonesian,

Arab

Laotian, Vietnamese, etc)

Chinese

Korean

West Asian

Filipino

South Asian (e.g., East Indian,

Latin American

Pakistani, Sri Lankan, etc.)

Other (please specify): _____

Aboriginal Canadian

4. What is your postal code? _____

5. Are you working? Yes No

6. If yes, do you work Part time Full time

7. What kind of job do you have? _____

The next questions ask about food preparation and eating habits.

8. How many days in the last week did you eat fully ready-to-eat meals, prepared by the manufacturer, may need to be warmed up (examples – roasted chicken, cold deli salads, freshly-made cabbage rolls, granola bars, cookies, crackers, cake, pie, bread)

0

4

1

5

2

6

3

7 or more

milk and/or some cooking time, but have been mostly prepared by the manufacturer

(examples – canned soups, instant oatmeal, mixes for pancakes/cake/pudding, frozen

lasagna, fish sticks, frozen pizza, cold cereal, garlic bread, macaroni dinner)

0 4

1 5

2 6

3 7 or more

10. How many times in the last week did you eat foods that are basic foods/ food ingredients, may be fresh, frozen or canned, but are minimally processed; often combined to make something “from scratch” or cooked and served plain (examples – raw, frozen or canned vegetables, fruit, meat or fish, dry or canned kidney beans, plain rice or pasta, flour, rolled oats, cheese, yogurt, milk, eggs)

0 4

1 5

2 6

3 7 or more

11. How many days in the last week did you eat breakfast?

0 4

1 5

2 6

3 7 or more

Fruits: less than 1 1 2 3 4 5 or more**Vegetables:** less than 1 1 2 3 4 5 or more

13. How many times in the last week did you eat fast-foods (e.g., McDonalds, KFC, Pizza Hut)?

 0 1 2 3 4 5 6 7 or more

14. How many times in the past week did you eat meals away from home?

 0 1 2 3 4 5 6 7 or more

15. How many times in the past week did you buy food from a convenience store?

2 6 3 7 or more

16. How would you rate your skills in the following areas?

My food skill rating →	Very good skill	Good skill	Basic level skill	Very limited or no skill
Using a kitchen knife safely				
Peeling, chopping or slicing vegetables or fruit				
Cooking a piece of raw or frozen meat/chicken/fish, (not processed or partially-prepared)				
Cooking a soup, stew or casserole using a pre-packaged mix (like macaroni dinner, rice mix)				
Cooking a soup, stew or casserole “from scratch”				
Choosing a spice or herb that goes well with the food I am cooking				
Adjusting a recipe to make it healthier (for example, decrease the amount of fat, sugar or salt)				
Baking muffins or cake using a pre-packaged mix				
Baking muffins or cake “from scratch” with a recipe				
Coordinating the preparation and cooking of a few food dishes at the same time so I can serve them all together for a meal				

foods already in my home, and then preparing these foods so I can serve them all together within 1 hour or less				
Freezing vegetables or fruit, from raw to bagged in my home freezer				
Canning fruit or salsa etc, from raw ingredients to finished products in sealed glass jars				

17. On average, how long does it take to prepare the “main” meal eaten in your home? The “main” meal would take the most time to prepare of any meal in a given day. Choose the answer that best represents the average time range.

- 0-19 minutes
- 20-29 minutes
- 30-39 minutes
- 40-49 minutes
- 50-59 minutes
- more than 60 minutes

18. Are you the person responsible for preparing the “main” meal? Choose the answer that best describes you.

- Yes, I am always/ almost always solely responsible for preparing the main meal
- Yes, I am responsible most of the time for preparing the main meal
- Yes, I am responsible some of the time for preparing the main meal
- Yes, but I often prepare the main meal together with someone else
- No, I seldom or never prepare the main meal

scratch" – that is, using basic food items, with a recipe as needed?

0 times in the past week

5-9 times

1-2 times

10-14 times

3-4 times

15 or more times

20. How sure are you that you can prepare foods at home at least partly "from scratch" – that is, using basic food items, with a recipe as needed?

I know I can

I think I can

I'm not sure I can

I know I can't

I don't know

21. How would you rate the food skills you had developed **before** being involved in *Cook It Up*? By food skills, we mean things like shopping for food, growing food, preparing & cooking food.

very good skills

good skills

basic skills

very limited skills

no skills

food that you grew in your yard, on your balcony or in a community garden? By food, we mean vegetables, fruit, berries, nuts.

Yes No Unsure

23. How sure are you that you know what “local food” means?

I know what it means

I think I know what it means

I'm not sure what it means

I don't know what it means

Demographic Survey and Post-Test (Youth Participants)

1. Are you attending school? Yes No

If yes, what is the name of your school?

What grade are you in? _____

2. What is your family situation? (please check)

Single-parent

Double-parent

Guardian-led

I live by myself

I live with a roommate(s), but not with my parent(s)/guardian(s)

I live in a group home

Other (please specify):

3. To which ethnic or cultural group do you belong? (please check)

White

Southeast Asian (e.g., Cambodian, Indonesian,

Arab

Laotian, Vietnamese, etc)

Chinese

Korean

Japanese

Black

South Asian (e.g., East Indian,
Pakistani, Sri Lankan, etc.)

Latin American

Other (please specify): _____

Aboriginal Canadian

4. What is your postal code? _____

5. Are you working? Yes No

6. If yes, do you work Part time Full time

7. What kind of job do you have? _____

The next questions ask about food preparation and eating habits.

8. How many days in the last week did you eat fully ready-to-eat, prepared by the manufacturer, may need to be warmed up (examples – roasted chicken, cold deli salads, freshly-made cabbage rolls, granola bars, cookies, crackers, cake, pie, bread)

0

4

1

5

2

6

3

7 or more

9. How many times in the last week did you eat foods that require the addition of water or milk and/or some cooking time, but have been mostly prepared by the manufacturer

lasagna, fish sticks, frozen pizza, cold cereal, garlic bread, macaroni dinner)

- | | |
|----------------------------|------------------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 5 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 7 or more |

10. How many times in the last week did you eat foods that are basic foods/ food ingredients, may be fresh, frozen or canned, but are minimally processed; often combined to make something “from scratch” or cooked and served plain (examples – raw, frozen or canned vegetables, fruit, meat or fish, dry or canned kidney beans, plain rice or pasta, flour, rolled oats, cheese, yogurt, milk, eggs)

- | | |
|----------------------------|------------------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 5 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 7 or more |

11. How many days in the last week did you eat breakfast?

- | | |
|----------------------------|------------------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 5 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 7 or more |

less than 1

less than 1

1

1

2

2

3

3

4

4

5 or more

5 or more

13. How many times in the last week did you eat fast-foods (e.g., McDonalds, KFC, Pizza Hut)?

0

4

1

5

2

6

3

7 or more

14. How many times in the past week did you purchase food from a convenience store?

0

4

1

5

2

6

3

7 or more

15. How many times in the past week did you eat meals away from home?

0

4

3 7 or more

16. How would you rate your skills in the following areas?

My food skill rating →	Very good skill	Good skill	Basic level skill	Very limited or no skill
Using a kitchen knife safely				
Peeling, chopping or slicing vegetables or fruit				
Cooking a piece of raw or frozen meat/chicken/fish, (not processed or partially-prepared)				
Cooking a soup, stew or casserole using a pre-packaged mix (like macaroni dinner, rice mix)				
Cooking a soup, stew or casserole “from scratch”				
Choosing a spice or herb that goes well with the food I am cooking				
Adjusting a recipe to make it healthier (for example, decrease the amount of fat, sugar or salt)				
Baking muffins or cake using a pre-packaged mix				
Baking muffins or cake “from scratch” with a recipe				
Coordinating the preparation and cooking of a few food dishes at the same time so I can serve them all together for a meal				
Planning a quick, healthy meal using only				

preparing these foods so I can serve them all together within 1 hour or less				
Freezing vegetables or fruit, from raw to bagged in my home freezer				
Canning fruit or salsa etc, from raw ingredients to finished products in sealed glass jars				

17. Overall, how would you rate the food skills you had developed **after** being involved in *Cook It Up*? By food skills, we mean things like shopping for food, growing food, preparing & cooking food.

very good skills

good skills

basic skills

very limited skills

no skills

18. On average, how long does it take to prepare the “main” meal eaten in your home? The “main” meal would take the most time to prepare of any meal in a given day. Choose the answer that best represents the average time range.

0-19 minutes

40-49 minutes

20-29 minutes

50-59 minutes

30-39 minutes

more than 60 minutes

best describes you.

Yes, I am always/ almost always solely responsible for preparing the main meal

Yes, I am responsible most of the time for preparing the main meal

Yes, I am responsible some of the time for preparing the main meal

Yes, but I often prepare the main meal together with someone else

No, I seldom or never prepare the main meal

20. How sure are you that you can prepare foods at home at least partly "from scratch" – that is, using basic food items, with a recipe as needed?

I know I can

I think I can

I'm not sure I can

I know I can't

I don't know

21. How many times in the last week did you prepare or cook any meal at least partly "from scratch" – that is, using basic food items, with a recipe as needed?

0 times in the past week 5-9 times

1-2 times 10-14 times

3-4 times 15 or more times

22. How likely are you to use any food skills you learned during *Cook It Up!* to make food "from

- Likely
- Unsure
- Not likely
- Definitely will not use any food skills

23. **During** the *Cook It Up!* program, did you or anyone in your household, grow and eat any food that was grown in your yard, on your balcony or in a community garden? By food, we mean vegetables, fruit, berries, nuts.

- Yes No Unsure

24. **After** the *Cook It Up!* program, did you or anyone in your household, grow and eat any food that was grown in your yard, on your balcony or in a community garden? By food, we mean vegetables, fruit, berries, nuts.

- Yes No Unsure

25. Since participating in *Cook It Up!*, how sure are you that you can purchase foods from a local farmers' market?

- I know I can
- I think I can
- I'm not sure I can
- I know I can't
- I don't know

farmers' market?

very likely

likely

unsure

not likely

definitely will not purchase foods from a local farmers' market

27. Since participating in the *Cook It Up!* program, how sure are you that you know what "local food" means?

I know what it means

I think I know what it means

I'm not sure what it means

I don't know what it means

Participants will be informed that consent must be obtained from individuals prior to photographing them, and that they must only take pictures to which these individuals agree. Pictures will not be taken of individuals who can be identified without their knowledge and consent. Participants will also be informed that the anonymity of individuals in pictures should be maintained, unless the individual provides consent that allows for identification (see consent form). Whether the person can or cannot be identified in the photographs, participants will be oriented to the respectful and responsible taking of photographic images. As the camera can be a source for invasion of privacy, participants will be oriented to the ethical use of the camera and their photography in such a way as to prevent intrusion into a person's private space, to avoid disclosure of embarrassing facts, to avoid twisting the trust, and to not publish any photographs as a way to make money (Moffitt & Vollman, 2004).

Topics that will be discussed at the Orientation Session are based on the recommendations of the creator of the photovoice method (Wang, 1999).

1. Introduction to the photovoice concept and method.
2. Discussion of the responsibility and authority conferred to the photographer wielding the camera.
3. Ways to minimize potential challenges.
4. Presentation of an ethic of giving photographs back to the community as a way to express appreciation, respect, and camaraderie.
5. Discussion questions will include the following:
 - How can a person take pictures of barriers to healthy cooking skills?
 - How can a person take pictures of facilitators of healthy cooking skills?
 - What is an acceptable way to approach someone to take his or her picture?
 - Should someone take pictures of another person without their knowledge?
 - To whom might you wish to give photographs, and what might be the implications?
 - When would you not want to have your picture taken?
6. Discussion of time lines and expectations.

Adapted from Photovoice Hamilton Ontario, 2007.

References:

Moffitt P, Vollman AR. Photovoice: picturing the health of aboriginal women in a remote northern community. *CJNR* 2004;36(4):189-201.

Wang C. Photovoice: a participatory action research strategy applied to women's health. *J Womens Health* 1999;8(2):185-192.

You are invited to have your picture taken by one of the photographers involved with *Cook It Up!* Photovoice Research Project. *Cook It Up!* is funded by the Ontario Agri-Food Education Inc.

Photovoice has four goals:

1. It helps people record and think about their community's strengths and problems.
2. It identifies important issues through group discussion and photographs.
3. It gets the attention of politicians and other decision-makers in our community.
4. It works toward positive change in our community.

Pictures taken in Photovoice will be shown to others in order to create awareness about the things that make it easy as well as more difficult for the youth in *Cook It Up!* to develop healthy cooking skills outside of their involvement in the *Cook It Up!* program. The pictures taken may be shown in gallery displays, presentations to local decision-makers, and/or published on our website:

www.lcrc.on.ca. Others viewing the pictures may recognize you, but there are no names or contact information included with the photos. Photographs will not be used to make money.

Please sign this form if you agree to have your photograph taken by a participant in the *Cook It Up!* Photovoice Research Project. If you would like a copy of the photograph taken of you, please write your address below as well.

Subject Name

Name of Photographer

Signature of Subject

Date

Research

Cook It Up! program for Youth

I have had the nature of the *Cook It Up!* **Photovoice research project** explained to me and I agree to participate. All questions have been answered to my satisfaction.

_____ Date _____ Participant's name (please print) _____ Participant's signature

_____ Date _____ Parent/Guardian's Name (please print) _____ Parent/Guardian's signature

_____ Date _____ Name of person responsible for obtaining informed consent (please print) _____ Signature

There are possible **ethical issues** that may arise when using Photovoice as a research method.

The following recommendations are based on the work of Caroline Wang, the originator of Photovoice. The purpose of discussing ethical issues is to reduce the risks to the photographer as well as to their subjects.

Invasion of Privacy:

Taking someone's photograph without his/her permission is a violation of privacy. Even if the person does not mind that you took his/her picture, when you do not ask permission, you may cause that individual to become upset and you could be put into a difficult situation as a result.

If the photographer believes there may be a loss of naturalness or spontaneity if permission is asked, the photographer must learn to be patient. Many professional photographers spend most of their time behind a camera just waiting for the perfect shot. After obtaining permission from the human subject you wish to photograph, wait until he/she has forgotten you are there, until they slip back into what they were doing. You will be able to get the photograph you want, but you need to first get permission to take that picture and then you must wait for it the perfect moment to snap the photograph.

Asking for someone's permission to photograph him/her is a way to build his/her trust. It will also give you, as the photographer, the opportunity to discuss what you are doing and explain the *Cook It Up!* Photovoice research project with your human subject again.

As a general rule, the photographer is not required to receive a signature when taking a picture of a group of people where individual faces are not recognizable or if the photographer is taking a photo of something and a person just happens to walk into the shot at the last moment.

Some people may not want their photograph taken, and will have their own reasons for this. People sometimes feel protective of their communities and as such, may not want their photograph taken in their community.

Representing communities and their members:

Taking a photo of someone doing something risky or incriminating would go against the values and goals of Photovoice.

Photographers will also be asked to write a story to display along with each photo. You can use the “SHOWED” form to help you write down the reasons why you decided to take different pictures. You will be provided with several copies of the “SHOWED” form before you start taking pictures.

It is important that photographers ask themselves if the subject would agree with the photo taken and with the text written to accompany the photo. You are making a photographic suggestion as the photographer. Any human subject in your photos must agree with this suggestion. Remember that the subjects are vulnerable to the image, even if they give permission to be photographed.

Using a camera gives the photographer a lot of power to create a message that is visually loaded

to represent the image and the subjects within the image in an accurate and respectful way.

Photovoice is an exciting way to share with others how **you** feel about what makes it easier or more difficult to develop cooking skills. You have the opportunity to get really creative, but in a respectful and ethical way.

***Cook It Up!* program for Youth**

Investigators:

Heather Thomas, MSc, RD, PhD Candidate

Dr. Jennifer Irwin, PhD, Faculty of Health Sciences, University of Western Ontario

Dr. Trish Tucker, PhD, Faculty of Health Sciences; Middlesex-London Health Unit

Background:

Cook It Up! is a community-based, education and skill-building program for at-risk youth (13-18 years). It is a fun and practical program offering nutrition information, food safety, food preparation and selection and cooking skills, taught by some of London's best local chefs. Through agricultural field trip experiences to a variety of local farms and farmers' markets, participants will be able to explore future employment potential in a variety of agricultural and food service environments, as well as to gain an understanding of where our food comes from, and how it gets from farm to plate. Researchers at the University of Western Ontario are looking at the *Cook It Up!* program you recently participated in and want to know what you feel are the things that make it easier and more difficult to have healthy cooking skills, outside of your involvement in the *Cook It Up!* program. Through a research method called "Photovoice," you will take photos of pictures that you think explain the things that make it easier or more difficult to have healthy cooking skills. Your help will give us lots of information to learn about how to help youth like you improve their cooking skills. This information may lead to program and policy development that would acknowledge and help to address these barriers and facilitators. If you have participated in *Cook It Up!*, the research team would like to hear your ideas.

What will happen in this study:

If you agree to participate in this study, you will be contacted by one of the researchers with dates, times, and locations for a camera orientation session, which will take about ½ -1 hour, as well as a discussion group which will take 1-1.5 hours. A comprehensive 'training' session will be held where you will get the camera and learn how to take pictures using this camera for participation in the study. The camera orientation session and discussion group will both be located within your community. Prior to participating in this study, you will be asked to sign a consent form for your participation. You will also be asked if you are willing to have your pictures used within the focus group setting, and within any publication about the results of the study. This is completely voluntary, and not required.

At the camera orientation session, you will be oriented to the purpose of the study and be loaned a camera, as well as a logbook. You will be asked to take pictures of barriers and facilitators to developing healthy cooking skills outside of your involvement in the *Cook It Up!* program and keep a log of the thoughts that you have about the photos you take. You will be provided with the logbook that you will need for this. Prior to taking photos of people, you will need to provide written information to those people, and ask for their signed consent to allow for their pictures to be taken. If you are thinking about taking a photograph of a child or someone who is unable to consent for him/herself, it is VERY important that you receive permission from the child's or individual's parent or guardian BEFORE taking the photograph. This is very important so you don't offend or upset the child's or person's parent or guardian. If the child's or person's parent or guardian is not available to give you permission and signed consent to take the child's picture, you may NOT take that photograph. You will be provided with the information and consent forms that you will need for this.

you for this purpose.

At the end of each session of *Cook It Up!*, you will return your camera, and attend a discussion group within your community where you will discuss 2-4 of your pictures with the others in the group. Ideally, each group will consist of 6-7 people. The discussion group sessions will be audio tape recorded and transcribed to ensure that all your comments are captured. We will be audio-recording the discussion so we don't miss anything. The audio-recording will be transcribed and a computer program called NVivo will be used to help find the themes from the information provided in the interviews. You will not be identified by your full name in the transcribing, in order to keep your identity confidential. We will also be collecting information about you in a demographic survey which will give us a bit more information about who participated in the Photovoice research of the *Cook It Up!* program. The questionnaire will take about 5-10 minutes to complete. If you agree to participate, your commitment to coming to both sessions is very important. We will be contacting you to arrange the discussion group date, time and location.

Alternatives and your right to withdraw from the study:

Your participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, and ask to stop the recording at any time during the discussion group, or withdraw from the study at any time. Your decision will not influence your access to community programs or services you may be currently receiving, or may choose to register in at some time in the future.

Possible benefits and risks to you for participating in the study:

for you include feeling empowered, having the feeling of being involved with your community by being given a voice to speak about your healthy cooking skills development, connecting with others in their community, and advocating for change in service of improving other youths' development of healthy cooking skills through community-based programs. Additionally, you will learn basic marketable skills including photographic technique, working with digital images, and the process of creating an art show or product. You do not waive any of the legal rights you would otherwise have as a participant in a research study.

Confidentiality:

We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. Representatives from the University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research. We will keep all data in a secured place for five years after the study results have been published. Data will be destroyed at the end of this time period. All computer data will be erased and all written/paper data will be shredded.

Costs and compensation:

There is no cost to you for participating in the study. To acknowledge your contribution to the study, you will receive a small token of appreciation.

Publication of the results:

receive a copy of the overall results of the study, please put your name and address on a blank piece of paper and give it to the researcher present at the discussion group.

Contact persons (should you have any further questions about the study):

Heather Thomas, MSc, RD

Dr. Jennifer D. Irwin, PhD

Dr. Trish Tucker, PhD

████████████████████

████████████████████

████████████████████

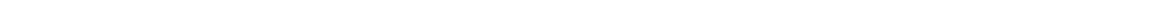
████████████████████

████████████████

████████████████████

* If you have any questions about your rights as a research participant or the conduct of the study you may contact the Office of Research Ethics at ██████████ or by email at ethics@uwo.ca.

This letter is for you to keep. You will also be given a copy of the consent form once it has been signed.



As a participant in the *Cook It Up!* Photovoice Research Project, you have the following rights and responsibilities:

Rights:

- You have the right to express your views and experiences during the discussion group sessions.
- You have the right to be supported by the Photovoice group members and facilitators of the discussion group sessions.
- You have the right to choose the photographs you would like to display in public.
- You have the right to change your mind about displaying any of your photographs.

Responsibilities:

- We will do our best to start the sessions on time, so we can finish on time. Please do your best to arrive on time.
- Please contact the discussion group facilitator (Heather Thomas) or assistant moderator if you cannot make it to a session.
- Be positive to your peers. Please avoid putdowns or criticism.
- Since everyone has something important to say, only one person speaks at a time.
- You have the responsibility to ask human subjects if they will consent to be in a photograph before taking the photo.
- You have the responsibility to ask the owner of personal property (e.g., someone's house) permission before taking a photo of someone's personal property.
- You have the responsibility to be respectful when working with human subjects.
- You have the responsibility to use a buddy system, especially when taking photos in places you are not familiar with.
- You have the responsibility to NOT do something you usually would not do.
- You have the responsibility to NOT go somewhere you usually would not go.
- You have the responsibility to be aware of your surroundings.

Photovoice

Study Title: Using Photovoice to Explore Barriers and Facilitators to Healthy Cooking Skills

Development

Introduction: Thank you for coming today to share with us your perceptions about the barriers and facilitators to developing healthy cooking skills outside of your involvement in the *Cook It Up!* program. In this interview, we will ask you for your opinions about using the camera and taking photographs, the meaning of the pictures that you have chosen, and your thoughts about being in this session. Each person will have a chance to talk. Your input is very valuable in helping us better understand the appropriateness of this type of research method, as well as to answer the research question: What are the barriers and facilitators to the development of healthy cooking skills for youth outside of their involvement in the *Cook It Up!* community-based cooking program? Please help yourself to refreshments at any time. Does anyone have any questions before we get started?

A. Icebreaker introductions

B. We would like to know your opinions about using the camera and taking photographs and how this was helpful or not helpful for you in expressing your opinions and thoughts about the barriers and facilitators that you face in the process of developing cooking skills.

- a. How did taking the photos help/not help you illustrate your opinions about the barriers you face to developing healthy cooking skills?
- b. How did taking the photos help/not help you to illustrate your opinions about the facilitators that

- a. How did you find the process of taking the photos? (e.g., time consuming, or did it fit in with your activities of daily living?)
- b. How did you feel about the effort required to take the photos? (e.g., were you tired or energized by this process?)
- c. How did you find using the camera and taking pictures?
- d. How did this affect your interest about the development of healthy cooking skills for youth, and what affected these habits?
- e. How did this process affect your ability to identify and/or discuss barriers and facilitators to your development of healthy cooking skills?
- f. What other comments do you have about the process of taking pictures or the use of the camera?
- g. What recommendations do you have for the researchers about how to enhance the use of cameras and picture taking in future research?

C. Now please select from your pictures the picture YOU think best represents a barrier to developing healthy cooking skills and a facilitator to developing healthy cooking skills. We will complete this section with additional photos if time permits, or if more pictures are needed to encourage conversation.

(We will ask the following of each participant)

- a. Please tell us about the two pictures (one barrier and one facilitator) that you have chosen for this session.

facilitators that you encounter, in the development of healthy cooking skills outside your involvement with *Cook It Up*?

c. What made you select these two pictures over the other pictures?

d. To the group: Can anybody else relate to this picture or what (person's name) is describing?

e. Was there anything else that you would have liked to have taken a picture of, but could not?

What prevented you from taking the picture and/or what would have helped you to be able to take the picture?

From the discussion, do you have other thoughts that you wish to share about the barriers that you face or facilitators that you encounter for developing healthy cooking skills?

Do you have any final comments about the barriers that youth face or facilitators that they encounter in the development of healthy cooking skills?

D. We would also like your opinions or thoughts on your experience in being part of this group interview.

a. How did participating in this discussion group help you to communicate your opinions or thoughts about the barriers that youth face when developing cooking skills?

b. How did participating in this discussion group help you to communicate your opinions about the facilitators that youth encounter when developing cooking skills?

c. How easy or difficult was it to voice your opinion or thoughts in front of the group?

d. What other comments do you have about the process of participating in this group interview?

e. What recommendations do you have for the researchers about the group interview for future research?

The Co-Investigator will provide an oral summary of the interview themes and then ask: Is this an adequate summary of what we discussed today? Once participants have given their feedback on this, move to closing.

Closing:

Thank you so much for your participation today. Before you leave, we have a brief demographic questionnaire that we would like you to complete. Also, as a token of our appreciation for your time and participation in the study, we have a \$10 gift card for your local grocery store. We will also give you copies of your photographs to take home with you.

Photographers can use this form to help them complete their thoughts about the specific photo they have just taken.

Name of Photographer: _____

Title of Picture: _____

Date Picture Taken: _____

S	What is S een here? (Describe what the eye sees)
H	What is really H appening? (The unseen “story” behind the image)
O	How does this relate to O ur lives? (or MY life personally)

W	Why are things this way?
E	How could this image E ducate people?
D	What can I D o about it? (What WILL I or WE do about it?)

Adapted from Photovoice Hamilton Ontario, 2007.

The Cook It Up! program is supported by the London Community Resource Centre and a number of community agencies and associations (see attached). All supporters of the Cook It Up! program promote positive learning experiences for everyone. To that end, the following code of conduct applies to everyone (participants, chefs, fieldtrip operators, community agency representatives, Steering Committee members):

Appropriate Actions

- I will act as a responsible person
- I will acknowledge and appreciate efforts made by all participants
- I will be respectful of chefs, volunteers, farmers, participants, and others involved in the Cook It Up! program
- I will respect the rules
- I will encourage others to enjoy the program
- I will respect the facility

Inappropriate Actions

- I will not make any verbal comments or physical gestures about or toward anyone that could be considered offensive, derogatory, or abusive
- I will not engage in any action that might be considered to be verbally or physically abusive

Consequences

- For first time inappropriate actions, offenders will be ejected from the program
- Repeat offenders will be banned from the program and will not be able to participate in any aspect of the program (cooking AND fieldtrips) for the remainder of the program

Enforcement

enforcing the Code of Conduct

- The London Community Resource Centre will support chefs, volunteers, and Steering Committee members in upholding this Code of Conduct

MANAGING BEHAVIOUR AND CODE OF CONDUCT

Problem Solving:

When working to guide participant behaviour, staff will first employ problem solving techniques to help participants' understand the consequences of their behaviour. If problem solving shows insufficient results for maintaining a safe, constructive environment for all, staff will implement the following procedures.

Infraction	Behaviour	Discipline	
		Minor Infraction	Moderate Infraction
Minor	<ul style="list-style-type: none"> <input type="checkbox"/> Continued disobedience of a program rule <input type="checkbox"/> Continued disobedience of a verbal instruction from staff <input type="checkbox"/> Other (Please specify) 	<p>Initial Offence:</p> <p>The participant will be required to sit out for a period of five minutes.</p> <p>Second Offence:</p> <p>The participant will sit out again and parents/legal guardian will be notified that a third infraction will result in a suspension</p> <p>Third Offence:</p>	<p>Initial Offence:</p> <p>The participant will be removed from the program for a period of time and parents/legal guardians will be notified immediately that a second infraction will result in removal from the program.</p>

		suspended from the program.	
Moderate	<input type="checkbox"/> Reckless disregard for safety of other participants, staff or self <input type="checkbox"/> Fighting <input type="checkbox"/> Swearing <input type="checkbox"/> Defiance of staff authority <input type="checkbox"/> Vandalism <input type="checkbox"/> Bullying <input type="checkbox"/> Other: (Please specify)		
Disciplinary actions are progressive irrespective of the infraction with the exception of Zero Tolerance incidents.			
	<input type="checkbox"/> Possession of or use of any weapons <input type="checkbox"/> Physical abuse of other participants of staff <input type="checkbox"/> Uttering physical threats <input type="checkbox"/> Smoking or use of illegal drugs <input type="checkbox"/> Theft	Parents/legal guardian notified of the infraction and the participant is suspended for the duration of the season. Police are notified if appropriate.	

communication between staff, parents/guardians and child.

Today, _____ was involved in

We ask that you have a talk with your child explaining that this behaviour is not appropriate. This is the _____ 1st, the _____ 2nd, the _____ 3rd warning (discipline is progressive). After the requisite number of warnings as outlined above, we will have to ask that _____ leave our program. Should your child be suspended, staff will make every effort to contact you prior to your arrival. We hope that this issue is resolved and will not re-occur. Your co-operation is greatly appreciated.

Sincerely,

Signature Project Coordinator

Date

Parent/Guardian Signature (please sign and return this letter with your child.)

Date

Comments:

Appendix R: Injury Report Form

Staff or volunteer with the Cook It Up! program MUST complete this document if a participant is injured during the cooking session and/or fieldtrip. Once completed by all parties, please give to Linda Davies, Executive Director at London Community Resource Centre for final signature and copies.

Injury Report

Name of participant:
Birth date of participant:
Date of injury:
Description of injury:
Treatment:
Parent/guardian notified (date, time):
Was there a piece of equipment involved in the incident? Please add details:
What alterations have been made to improve the teaching opportunity regarding this equipment to avoid future injury?
Name of Cook It Up! staff/volunteer involved:
Signature of Cook It Up! staff/volunteer involved:
Signature of Executive Director, London Community Resource Centre:
Parent/guardian response:

Appendix S: Procedure for Injury or Emergency

- In the event of serious injury, or allergic reaction:
 - Call 911 immediately. Stay with participant until medical help arrives.
 - Call participant's emergency contact. Inform them about the situation and arrange for them to meet participant at hospital.
 - Have volunteer accompany participant to hospital and stay with them until emergency contact arrives.
 - Fill out Cook It Up! Injury Report Form and submit to Cook It Up! staff.

 - In the event of minor injury (e.g. minor cuts or burns):
 - Treat wound with program first aid kit.
 - Call participant's emergency contact. Inform them about the situation and arrange for them to pick up participant or meet participant at hospital.
 - Inform project coordinator or staff member in attendance of details and complete "injury report" form. Submit form to Cook It Up! staff.
 - If participant's emergency contact is to meet participant at hospital, have volunteer accompany participant to hospital and stay with them until emergency contact arrives.
 - Cook It Up! has set up an account with Aboutown (██████████) to be used for transportation to and from hospital or participant's home in the event of injury.
-

Appendix T: Participant Information and Health History Form

Participant Information and Health History Form

Instructions: Complete this form **BEFORE PARTICIPANT ARRIVES AT PROGRAM**. (A physician's signature is **NOT** required on this form; however, we strongly encourage the participant to have a yearly physical check-up by your family doctor. One annual physical check-up is covered by OHIP). This information will be used for the Cook It Up! program planning and evaluation and will be kept confidential. For more information, contact The London Community Resource Centre at [REDACTED].

Participant Information:	PLEASE PRINT WHEN COMPLETING THIS FORM	
Surname:	First Name:	Sex: <input type="checkbox"/> M <input type="checkbox"/> F
Date of Birth: ___/___/___ (Day/Month/Year)		Age:
Address:		Home Phone:
Apt. #	Street #	Street Name
Postal Code:		City:
Health Card Number:		Version Code:
Other Health Insurance:		

Parent/Guardian Surname:		First Name:	
Address: (if different from above)			
Apt. #		Street #	
Street Name			
City:		Postal Code:	
Home Phone:		Work Phone:	
		Cell Phone:	
Emergency Contact: This individual will be contacted if the parent/guardian cannot be reached in an emergency.			
Contact Name:		Relationship:	
Address:			
Apt. #		Street #	
Street Name			
Home Phone:		Work Phone:	
		Cell Phone:	
Family Physician:		Phone #:	
I give permission for the participant to be photographed for promotional purposes (e.g. London Community Resource Centre website and written communications)		<input type="checkbox"/> Yes <input type="checkbox"/> No	

Health History

Allergies:

Drugs:	
Food:	
Insect Stings or Bites:	
Seasonal Allergies (e.g., hay fever)	
Other:	
Reactions:	
Recent Illness, Operations, or Injuries:	
Is participant under any form of treatment/medication for any illness, condition, or injury? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please explain:	
Will this condition limit or affect his/her participation in activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please explain:	
Immunization: Please indicate if Immunizations/Boosters are up to date	
TdP (tetanus, diphtheria, polio)	<input type="checkbox"/> Yes <input type="checkbox"/> No
MMR (measles, mumps, rubella)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Chicken Pox	<input type="checkbox"/> Yes <input type="checkbox"/> No
Hepatitis B	<input type="checkbox"/> Yes <input type="checkbox"/> No
HIB	<input type="checkbox"/> Yes <input type="checkbox"/> No
Meningitis	<input type="checkbox"/> Yes <input type="checkbox"/> No
Past History of Communicable Diseases and Approximate Dates:	
Chicken Pox ____/____/____(day/month/year)	Hepatitis ____/____/____(day/month/year)
Whooping Cough ____/____/____(day/month/year)	Other:
Other Health Issues: Please check any applicable health issues	
<input type="checkbox"/> Asthma	<input type="checkbox"/> Eating Disorders
<input type="checkbox"/> Behavioural Concerns	<input type="checkbox"/> Emotional Limitations
<input type="checkbox"/> Clotting Disorders	<input type="checkbox"/> Physical Limitations
<input type="checkbox"/> Seizure Disorders	<input type="checkbox"/> Headaches
<input type="checkbox"/> Diabetes	<input type="checkbox"/> Hearing Aids
<input type="checkbox"/> Hearing Difficulties	<input type="checkbox"/> Skin Conditions
<input type="checkbox"/> Heart Disease/Defect	<input type="checkbox"/> Hypertension (high blood pressure)
<input type="checkbox"/> Urinary Tract Infections	<input type="checkbox"/> Use of prosthetics/aids

Medications beings sent and to be taken by Participant. If you require more space, please continue at the bottom of this form.			
Medication Name	Dosage	Administration Time	Reason for Taking
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

To the best of my knowledge, this participant does not have a communicable disease, has not been in contact with anyone who has a communicable disease within 3 weeks of the program start date, and is physically able to participate in all program activities except as indicated in this form. All medical problems, or conditions requiring ongoing medical supervision or care, have been fully noted. I give permission for this health information to be shared with the appropriate staff and outside medical personnel as necessary. If the parent/guardian cannot be

reached, permission is, hereby, given to the staff to take whatever steps deemed necessary to ensure the safety and health of the participant. This also allows permission for the staff to contact the participant's family physician/specialist. I will inform our family physician/specialist that I have given this authorization.

I, hereby, certify that all information completed in this form is accurate and up to date. I will contact the staff, in writing, if any changes occur in the participant's health status between now and arrival at the program as well as during the program.

Parent/Guardian Name (please print)

Parent/Guardian Signature

Date

Appendix U: Permission Form for Field Trips

Parent/Guardian Permission Form for *Cook It Up!* Fieldtrips to local Farmers' Markets, Markets, and Farms

On-going field trips are defined as community activities which are part of the *Cook It Up!* program and will occur frequently (up to 20 fieldtrips over the course of one year) as part of the program. Monthly, participants will be involved in activities such as cooking, trips to local farms, farmers' markets, or grocery stores. For all on-going fieldtrips, the Program Manager will send home with the *Cook It Up!* program participant a complete itinerary/schedule showing the times, locations, dates, transportation and other arrangements.

Cook It Up! is a community-based, education and skill-building program for at-risk youth (13-18 years). It is a fun and practical program offering nutrition information, food safety, food preparation and selection and cooking skills, taught by some of London's best local chefs. Through agricultural field trip experiences to a variety of local farms and farmers' markets, participants will be able to explore future employment potential in a variety of agricultural and food service environments, as well as to gain an understanding of where our food comes from, and how it gets from farm to plate.

Cook It Up! provides an opportunity to be part of the creation of a program that will become a model for community groups, schools and focus groups across the province and country, helping youth to better understand their local food systems and to shop and cook for themselves in a practical, cost effective way. Participants will be given the tools to apply this knowledge in their daily lives. Through *Cook It Up!*, participants will

experience being a part of a program that will help to bring together youth and our local food industry professionals to work towards making our community stronger.

Project Manager in charge:

Locations and Dates:

Note: Elements of Risk: The risk of injury exists in every field trip activity. However, due to the very nature of some activities, the risk of injury may increase. Injuries may range from minor sprains and strains to more serious injuries. The safety and well being of students is a prime concern and attempts are made to manage as effectively as possible, the foreseeable risks inherent in field trip activity.

(PARTICIPATING YOUTH'S NAME)

has my permission to participate in the ongoing
Cook It Up! fieldtrips as described by the Project
Manager for the duration of the program.

(PARENT/GUARDIAN SIGNATURE)

(PRINTED NAME OF PARENT/GUARDIAN)

(DATE)

Appendix V: Volunteer Responsibilities

Cook It Up!

As a volunteer or placement student of the Cook It Up Program, I agree that I will immediately advise the Cook It Up Program Coordinator if:

- I become physically, mentally or emotionally unable to fulfill my duties as a volunteer or placement,
- I become subject of any criminal investigation (conviction) that will negatively impact the organization or my ability to perform my responsibilities.

Please check the appropriate box below:

As of Orientation date on

_____ (date):

- As of my attendance at the volunteer orientation. I am unaware of any incidents or events that would inhibit a successful background check with police.

After police check received on

_____ (date):

There are no occurrences, as described above, since my police check was submitted.

- All reportable matters as described in the attached information were discussed with my supervisor at the time of the occurrence.

I hereby attest that my response to the proceeding statement is true, complete and accurate to the best of my knowledge and belief.

Signature of Volunteer/Placement Student

Date

Signature of Volunteer Coordinator/Full time staff

Date

Note: This form will be reviewed and signed by all volunteers/ placement students of the London Community Resource Centre within three months of initial start date and on an annual basis (see below).

Date	Volunteer Signature	Date	Volunteer Signature

Appendix W: Participant Website Application Form

1. Tell us about your interest in food and cooking.
2. Why do you think cooking from scratch (using basic ingredients to make meals and snacks) is an important skill that youth should be learning?
3. Describe what you are hoping to learn from the Cook It Up! program.
4. Are you interested in working in the culinary industry in the future? If so, what area?
5. Describe your thoughts on the opportunity to work with local professional chefs and local farmers?
6. Where did you hear about the Cook It Up! program?
7. Other information:

Name:

Address:

Age:

City / Town:

Province:

Postal Code:

Email address:

Phone Number:

Today's Date:

Appendix X: Sample Website Articles

Youth get a chance to Cook-It Up!

The London Community Resource Centre is excited to launch a collaborative, new community-based program for youth ages 13 to 18.

Cook It Up! provides education and skill building for the youth participants facilitated by local chefs. The participants will learn about food safety, food selection and preparation skills, cooking skills, and will offer agricultural fieldtrips to a variety of local farms and farmers' markets.

Applications for Cook It Up! are currently being accepted. Interested youth can apply by visiting www.lcrc.on.ca and completing the application form. Cook It Up! will start in August 2009 and will be offered for one year, focusing on the four seasons in which we enjoy **Ontario-grown food. Participants in Cook It Up! will be introduced to local agriculture and food systems with the idea of promoting a rural experience to the urban youth we hope to recruit to the program.**

At the conclusion of the program the youth will be able to participate in a graduation celebration, giving them a sense of accomplishment and allowing them to share their learning experiences while networking with local farmers, food commodity marketing associations, local chefs and local farmers' markets.

Throughout the entire Cook It Up! program, the program leaders will be evaluating the process to learn how best to improve the program. A **“how-to” manual will be created and distributed, highlighting details for implementing this project in settings for similar or different target groups (post-secondary students, young adults, Ontario Early Years Centres, parents, multicultural groups and older adults).**

Cook It Up! is made possible with the generous funding of the Ontario Agri-Food Education Inc. Healthy Eating Fund, the Healthy Living Partnership Middlesex-London, the Middlesex-London Health Unit, Ontario Pork, and the White Bean Producers Marketing Board.

Things are heating up in the **Cook It Up!** kitchen

The **London Community Resource Centre’s new, collaborative, community-based program** held its first session August 17, 2009, and under the tutelage of one of **London’s premier chefs Paul Harding, of the Only on King**, the first class was an undeniable and resounding success.

The program, which is geared to **youth ages 13 to 18**, is gearing up for its next cooking session, sure to tantalize the taste buds and culinary curiosity of youth with an outdoor barbecue under the guidance of **chef Chris Meloche, owner of Flavour in Time Catering**, August 31, 2009.

In addition, the program’s first fieldtrip is set for September 14, 2009, to **Dolway Organic Gardens**, where youth will get an up-close and detailed look at the operations of a seasonal producer of fresh, local produce.

For any youth still interested in applying for the program, do not despair. **There is still limited space available for additional participants: [Applications for Cook It Up!](#)**

Cook It Up! provides education and skill building for the youth participants facilitated by local chefs. The participants will learn about food safety, food selection and preparation skills, cooking skills, and will offer agricultural fieldtrips to a variety of local farms and farmers' markets.

The program will be **offered for one year**, focusing on the four seasons in which we enjoy Ontario-grown food. Participants in **Cook It Up!** will be introduced to local agriculture and food systems with the idea of promoting a rural experience to the urban youth.

At the conclusion of the program the **youth** will be **able to participate in a graduation celebration**, allowing them to share their learning experiences while networking with local farmers, food commodity marketing associations, and local chefs.

There will be **ongoing evaluation** throughout the **Cook It Up!** Program. This information will then be used to **create a "how-to"** manual which will be distributed, highlighting details for implementing this project in settings for similar or different target groups (**post-secondary students, young adults, Ontario Early Years Centres, parents, multicultural groups and older adults**).

Cook It Up! has been made possible through the **generous funding** of:

- Ontario Agri-Food Education Inc. Healthy Eating Fund
- Healthy Living Partnership Middlesex-London
- Middlesex-London Health Unit
- Ontario Pork
- Ontario White Bean Producers

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Appendix B: Letter of Information for Formative Evaluation – Article 2

***Cook It Up!* program for Youth**

Investigators:

Heather Thomas, MSc, RD, PhD Student, Middlesex-London Health Unit

Dr. Jennifer Irwin, PhD, Faculty of Health Sciences, University of Western Ontario

Dr. Trish Tucker, PhD, Middlesex-London Health Unit & Faculty of Health Sciences, University of Western Ontario

Dr. Danielle Battram, PhD, Foods and Nutritional Sciences Division, Brescia University College, UWO

Background:

Cook It Up! is a community-based, education and skill-building program for youth (13-18 years). It is a fun and practical program offering nutrition information, food safety, food preparation and selection and cooking skills, taught by some of London's best local chefs. Through agricultural field trip experiences to a variety of local farms and farmers' markets, participants will be able to explore future employment potential in a variety of agricultural and food service environments, as well as to gain an understanding of where our food comes from, and how it gets from farm to plate.

Researchers at the Middlesex-London Health Unit and the University of Western Ontario are looking at the *Cook It Up!* program you recently participated in. We want to find out what you liked and didn't like about the program so we can improve it. Your help will give us lots of information to improve this community-based cooking program. If you have participated in *Cook It Up!*, the research team would like to hear your ideas.

What will happen in this study:

If you agree, you will be invited to participate in an in-depth interview at a location convenient to you. This will be a one-on-one interview and it will last about 1 hour. We will be audio-recording the

discussion so we don't miss anything. The audio-recording will be transcribed and a computer program called NVivo will be used to help find the themes from the information provided in the interviews. Also, we will be collecting information from you before the Cook It Up! program starts and after it ends to compare the information you provide us before and after the program. We will also be collecting information about you in a demographic survey which will give us a bit more information about who was interested in participating in the Cook It Up! program.

Alternatives and your right to withdraw from the study:

Your participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, and ask to stop the recording at any time during the interview, or withdraw from the study at any time. Your decision will not influence your access to community programs or services you may be currently receiving, or may choose to partake in the future.

Possible benefits and risks to you for participating in the study:

There are no known risks to you associated with your participation in this study. Possible benefits for you include having the opportunity to contribute to developing the "how-to" community resource manual that will be promoted and made available for local and provincial distribution. You do not waive any of the legal rights you would otherwise have as a participant in a research study.

Confidentiality:

We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. Representatives from the University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research. We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. We will keep all data in a secured place for five years after the study

results have been published. Data will be destroyed at the end of this time period. All computer data will be erased and all written/paper data will be shredded.

Costs and compensation:

There is no cost to you for participating in the study. To acknowledge your contribution to the study, you will receive a small token of appreciation.

Publication of the results:

When the results of the study are published, your name will not be used. If you would like to receive a copy of the overall results of the study, please put your name and address on a blank piece of paper and give it to the researcher present at the interview.

Contact persons (should you have any further questions about the study):

Heather Thomas,
MSc, RD

[REDACTED]

[REDACTED]

Dr. Jennifer D.
Irwin, PhD

[REDACTED]

[REDACTED]

Dr. Trish
Tucker, PhD

[REDACTED]

trish.tucker@mlhu.on.ca

Dr. Danielle
Battram, PhD

[REDACTED]

dbattra@uwo.ca

* If you have any questions about your rights as a research participant or the conduct of the study you may contact the Office of Research Ethics at [REDACTED] or by email at ethics@uwo.ca.

This letter is for you to keep.

You will also be given a copy of the consent form once it has been signed.

Appendix C: Copyright Release

Subject: RE: Journal: BMC Research Notes, MS: 2074551910551243
Due 15/11/2011
To: Heather Margaret Clarke Thomas
Cc:
Bcc:
Date: 12/19/11 06:55 AM
From: Independent Prepublication

Hi Heather,

Sorry for the delayed reply, I was not in the office over the weekend. To answer your questions, yes that would be fine as long as the work is cited in the manuscript. I hope everything goes well with your dissertation.

Please feel free to contact me if you have any further questions and have a Merry Christmas too!

Kind regards,

Sean Pritchard

Editorial Production Assistant

BioMed Central

Liverpool Science Park

131 Mount Pleasant

Liverpool

L3 5TF

W: www.biomedcentral.com

Appendix D: Ethical Approval Notice Formative Evaluation – Article 2

Appendix E: Demographic Survey and Self-Reported Cooking Skills Assessment

Youth Participants – Article 2

1. Are you attending school? Yes No

If yes, what is the name of your school?

What grade are you in? _____

2. What is your family situation? (please check)

Single-parent

Double-parent

Guardian-led

I live by myself

I live with a roommate(s), but not with my parent(s)/guardian(s)

I live in a group home

Other (please specify):

3. To which ethnic or cultural group do you belong? (please check)

White

Southeast Asian (e.g., Cambodian,

Arab

Indonesian, Laotian, Vietnamese, etc)

Chinese

Korean

Japanese

Black

West Asian

Filipino

South Asian (e.g., East Indian,

Latin American

Pakistani, Sri Lankan, etc.)

Aboriginal Canadian Other (please specify):

4. What is your postal code? _____
5. Are you working? Yes No
6. If yes, do you work Part time Full time
7. What kind of job do you have? _____

The next questions ask about food preparation and eating habits.

8. How many days in the last week did you eat fully ready-to-eat meals, prepared by the manufacturer, may need to be warmed up (examples – roasted chicken, cold deli salads, freshly-made cabbage rolls, granola bars, cookies, crackers, cake, pie, bread)

- | | |
|----------------------------|------------------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 5 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 7 or more |

9. How many times in the last week did you eat foods that require the addition of water or milk and/or some cooking time, but have been mostly prepared by the manufacturer (examples – canned soups, instant oatmeal, mixes for pancakes/cake/pudding, frozen lasagna, fish sticks, frozen pizza, cold cereal, garlic bread, macaroni dinner)

- | | |
|----------------------------|------------------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 5 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 7 or more |

10. How many times in the last week did you eat foods that are basic foods/ food ingredients, may be fresh, frozen or canned, but are minimally processed; often combined to make something “from scratch” or cooked and served plain (examples – raw, frozen or canned vegetables, fruit, meat or fish, dry or canned kidney beans, plain rice or pasta, flour, rolled oats, cheese, yogurt, milk, eggs)

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7 or more

11. How many days in the last week did you eat breakfast?

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7 or more

12. How many times in the last week did you eat fruits and vegetables?

Fruits:	Vegetables:
<input type="checkbox"/> less than 1	<input type="checkbox"/> less than 1
<input type="checkbox"/> 1	<input type="checkbox"/> 1
<input type="checkbox"/> 2	<input type="checkbox"/> 2
<input type="checkbox"/> 3	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 4
<input type="checkbox"/> 5 or more	<input type="checkbox"/> 5 or more

13. How many times in the last week did you eat fast-foods (e.g., McDonalds, KFC, Pizza Hut)?

- 0 1 2 3
 4 5 6 7 or more

14. How many times in the past week did you eat meals away from home?

- 0 1 2 3
 4 5 6 7 or more

15. How many times in the past week did you buy food from a convenience store?

- 0 1 2 3
 4 5 6 7 or more

16. How would you rate your skills in the following areas?

My food skill rating →	Very good skill	Good skill	Basic level skill	Very limited or no skill
Using a kitchen knife safely				
Peeling, chopping or slicing vegetables or fruit				
Cooking a piece of raw or frozen meat/chicken/fish, (not processed or partially-prepared)				
Cooking a soup, stew or casserole using a pre-packaged mix (like macaroni dinner, rice mix)				
Cooking a soup, stew or casserole “from scratch”				
Choosing a spice or herb that goes well with the food I am cooking				
Adjusting a recipe to make it healthier (for example, decrease the amount of fat, sugar or				

salt)				
Baking muffins or cake using a pre-packaged mix				
Baking muffins or cake “from scratch” with a recipe				
Coordinating the preparation and cooking of a few food dishes at the same time so I can serve them all together for a meal				
Planning a quick, healthy meal using only foods already in my home a, and then preparing these foods so I can serve them all together within 1 hour or less				
Freezing vegetables or fruit, from raw to bagged in my home freezer				
Canning fruit or salsa etc, from raw ingredients to finished products in sealed glass jars				

17. On average, how long does it take to prepare the “main” meal eaten in your home? The “main” meal would take the most time to prepare of any meal in a given day. Choose the answer that best represents the average time range.

- 0-19 minutes 40-49 minutes
 20-29 minutes 50-59 minutes
 30-39 minutes more than 60 minutes

18. Are you the person responsible for preparing the “main” meal? Choose the answer that best describes you.

- Yes, I am always/ almost always solely responsible for preparing the main meal
 Yes, I am responsible most of the time for preparing the main meal

- Yes, I am responsible some of the time for preparing the main meal
- Yes, but I often prepare the main meal together with someone else
- No, I seldom or never prepare the main meal
19. How many times in the last week did you prepare or cook any meal at least partly "from scratch" – that is, using basic food items, with a recipe as needed?
- 0 times in the past week 5-9 times
- 1-2 times 10-14 times
- 3-4 times 15 or more times
20. How sure are you that you can prepare foods at home at least partly "from scratch" – that is, using basic food items, with a recipe as needed?
- I know I can
- I think I can
- I'm not sure I can
- I know I can't
- I don't know
21. How would you rate the food skills you had developed **before** being involved in *Cook It Up*? By food skills, we mean things like shopping for food, growing food, preparing & cooking food.
- very good skills
- good skills
- basic skills
- very limited skills

no skills

22. Prior to the *Cook It Up!* program, have you or anyone in your household, grow and eat any food that you grew in your yard, on your balcony or in a community garden? By food, we mean vegetables, fruit, berries, nuts.

Yes No Unsure

23. How sure are you that you know what “local food” means?

I know what it means

I think I know what it means

I'm not sure what it means

I don't know what it means

Appendix F: Semi-Structured Interview Guide Community Partners and Youth –

Article 2

Semi-Structured Interview Guide – Community Partners

The purpose of this interview is to gain an understanding of your experience with the *Cook It Up!* program so the program can be modified to ensure it is as useful as possible for all participants and community partners.

For Community Agencies and Community Partners participating in Cook It Up!:

I'd like to ask you about the logistics of booking the fieldtrip:

1. How did the process of booking the fieldtrip work for you?

Probes:

- Deciding on the destination
 - Arranging and confirming transportation
 - Effectiveness of the fieldtrip re: introducing youth to local agricultural industry
 - Other issues related to booking the fieldtrip
 - What worked well with the Cook it Up! program?
 - What did not work well?
2. Why did you become involved in the *Cook It Up!* program?
 3. What barriers or challenges, if any, restricted your involvement or may have limited your involvement in any way?
 4. How did being involved in the program benefit your agency?
 5. How effective was the Steering Committee in meeting its objectives for this project? Please say more?
 6. How did you find the Steering Committee meetings? How would you have changed them?

7. What recommendations would you make to improve this program?
8. How could this program be adapted to other target groups in other communities?
9. If you could change anything about this program, what would it be?
10. Please tell me anything else about the cooking program that you'd like to share with me? Is there anything we missed?

Semi-Structured Interview Guide – Youth Participants

The purpose of this interview is to gain an understanding of your experience with the *Cook It Up!* program so the program can be modified to ensure it is as useful as possible for all participants and community partners.

For youth participants: We are asking you questions about Cook It Up! to try to make it better.

1. What did you like best or value most about the cooking program? Why?

Prompts:

- Cooking sessions with local chefs
- Field trips to local farms
- Field trips to farmers' markets
- Planning what food we would be preparing
- Shopping for food
- Eating the food we prepared
- Other aspects of the program
- Making new friends
- Learning about healthy eating
- Learning about food preparation
- Trying new foods
- Improving cooking skills

2. What did you like least or value least about the cooking program? Why?

3. How was Cook It Up! beneficial to you? Why was it good to be a part of Cook it Up!
 - How did it impact your life?
 - How did it improve your cooking skills?
 - What did you get out of the program?

4. In what ways could the cooking program be improved? If you could change anything about the program, what would it be?

5. How did your group use the curriculum components (modules) developed for the program?
 - Lesson plans
 - Activities
 - Recipes
 - Fieldtrip information

6. What is different for you since being in the *Cook It Up!* program? What, if anything, is different about how you're eating? What, if anything, is different about where you're purchasing?

7. What did you get out of the program?

8. In what ways did being a part of this program impact on your feelings about yourself?
Please say more?

9. What recommendations would you make to improve this program so it could be adapted to other target groups in other communities?

10. Is there anything else you'd like to tell us about your involvement in the Cook It Up! program?

Appendix G: Letter of Information for Photovoice Study – Article 3

***Cook It Up!* program for Youth**

Investigators:

Heather Thomas, MSc, RD, PhD Candidate

Dr. Jennifer Irwin, PhD, Faculty of Health Sciences, University of Western Ontario

Dr. Trish Tucker, PhD, Faculty of Health Sciences; Middlesex-London Health Unit

Background:

Cook It Up! is a community-based, education and skill-building program for at-risk youth (13-18 years). It is a fun and practical program offering nutrition information, food safety, food preparation and selection and cooking skills, taught by some of London's best local chefs. Through agricultural field trip experiences to a variety of local farms and farmers' markets, participants will be able to explore future employment potential in a variety of agricultural and food service environments, as well as to gain an understanding of where our food comes from, and how it gets from farm to plate. Researchers at the University of Western Ontario are looking at the *Cook It Up!* program you recently participated in and want to know what you feel are the things that make it easier and more difficult to have healthy cooking skills, outside of your involvement in the *Cook It Up!* program. Through a research method called "Photovoice," you will take photos of pictures that you think explain the things that make it easier or more difficult to have healthy cooking skills. Your help will give us lots of information to learn about how to help youth like you improve their cooking skills. This information may lead to program and policy development that would acknowledge and help to address these barriers and facilitators. If you have participated in *Cook It Up!*, the research team would like to hear your ideas.

What will happen in this study:

If you agree to participate in this study, you will be contacted by one of the researchers with dates, times, and locations for a camera orientation session, which will take about ½ -1 hour, as well as a discussion group which will take 1-1.5 hours. A comprehensive 'training' session will be held where you will get the camera and learn how to take pictures using this camera for participation in the study. The camera orientation session and discussion group will both be located within your community. Prior to participating in this study, you will be asked to sign a consent form for your participation. You will also be asked if you are willing to have your pictures used within the focus group setting, and within any publication about the results of the study. This is completely voluntary, and not required.

At the camera orientation session, you will be oriented to the purpose of the study and be loaned a camera, as well as a logbook. You will be asked to take pictures of barriers and facilitators to developing healthy cooking skills outside of your involvement in the *Cook It Up!* program and keep a log of the thoughts that you have about the photos you take. You will be provided with the logbook that you will need for this. Prior to taking photos of people, you will need to provide written information to those people, and ask for their signed consent to allow for their pictures to be taken. If you are thinking about taking a photograph of a child or someone who is unable to consent for him/herself, it is VERY important that you receive permission from the child's or individual's parent or guardian BEFORE taking the photograph. This is very important so you don't offend or upset the child's or person's parent or guardian. If the child's or person's parent or guardian is not available to give you permission and signed consent to take the child's picture, you may NOT take that photograph. You will be provided with the information and consent forms that you will need for this. If you are unable to write down your thoughts in the log book, an audio recorder will be loaned to you for this purpose.

At the end of each session of *Cook It Up!*, you will return your camera, and attend a discussion group within your community where you will discuss 2-4 of your pictures with the others in the group. Ideally, each group will consist of 6-7 people. The discussion group sessions will be audio tape recorded and transcribed to ensure that all your comments are captured. We will be audio-recording the discussion so we don't miss anything. The audio-recording will be transcribed and a computer program called NVivo will be used to help find the themes from the information provided in the interviews. You will not be identified by your full name in the transcribing, in order to keep your identity confidential. We will also be collecting information about you in a demographic survey which will give us a bit more information about who participated in the Photovoice research of the *Cook It Up!* program. The questionnaire will take about 5-10 minutes to complete. If you agree to participate, your commitment to coming to both sessions is very important. We will be contacting you to arrange the discussion group date, time and location.

Alternatives and your right to withdraw from the study:

Your participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, and ask to stop the recording at any time during the discussion group, or withdraw from the study at any time. Your decision will not influence your access to community programs or services you may be currently receiving, or may choose to register in at some time in the future.

Possible benefits and risks to you for participating in the study:

There are no known risks to you associated with your participation in this study. Possible benefits for you include feeling empowered, having the feeling of being involved with your community by being given a voice to speak about your healthy cooking skills development, connecting with others in their community, and advocating for change in service of improving other youths' development of

healthy cooking skills through community-based programs. Additionally, you will learn basic marketable skills including photographic technique, working with digital images, and the process of creating an art show or product. You do not waive any of the legal rights you would otherwise have as a participant in a research study.

Confidentiality:

We will keep your identity and comments, as well as all audio-tapes and written records, confidential and secure. No names will appear on any transcripts generated during the course of this study. Representatives from the University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research. We will keep all data in a secured place for five years after the study results have been published. Data will be destroyed at the end of this time period. All computer data will be erased and all written/paper data will be shredded.

Costs and compensation:

There is no cost to you for participating in the study. To acknowledge your contribution to the study, you will receive a small token of appreciation.

Publication of the results:

When the results of the study are published, your name will not be used. If you would like to receive a copy of the overall results of the study, please put your name and address on a blank piece of paper and give it to the researcher present at the discussion group.

Contact persons (should you have any further questions about the study):

Heather Thomas, MSc, RD

Dr. Jennifer D. Irwin, PhD

Dr. Trish Tucker, PhD

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

* If you have any questions about your rights as a research participant or the conduct of the study you may contact the Office of Research Ethics at [REDACTED] or by email at ethics@uwo.ca.

This letter is for you to keep. You will also be given a copy of the consent form once it has been signed.

Appendix H: Ethical Approval Notice Photovoice Study – Article 3



Office of Research Ethics

The University of Western Ontario
 Room 4180 Support Services Building, London, ON, Canada N6A 5C1
 Telephone: (519) 661-3036 Fax: (519) 850-2466 Email: ethics@uwo.ca
 Website: www.uwo.ca/research/ethics

Use of Human Subjects - Ethics Approval Notice

Principal Investigator: Dr. J. Irwin

Review Number: 16444E

Review Level: Expedited

Review Date: September 16, 2009

Protocol Title: Using Photovoice to Explore Barriers and Facilitators to the Development of Co Skills among At Risk Youth in Their Environments External to the Cook It Up! Pr

Department and Institution: Faculty of Health Sciences, University of Western Ontario

Sponsor: ONTARIO AGRIFOOD EDUCATION INC.

Ethics Approval Date: October 02, 2009

Expiry Date: April 30, 2011

Documents Reviewed and Approved: UWO Protocol, Advertisement, Letter of Information and Consent, Photovoice e issues handout, Consent Form for photographed human subjects, Rights and responsibilities of Photovoice participants, General information for camera orient session.

Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving I Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Resea Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable regulations of Ontario has reviewed and granted approval to the above referenced study on the approval date noted above. T membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable respon HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to th you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without pr written approval from the HSREB except when necessary to eliminate immediate hazards to the subject or when the change(s only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentati

Investigators must promptly also report to the HSREB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participat discussion related to, nor vote on, such studies when they are presented to the HSREB.



Chair of HSREB: Dr. Jos

Ethics Officer to Contact for Further Information

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Janice Sutherland | <input type="checkbox"/> Elizabeth Wambolt | <input checked="" type="checkbox"/> Grace Kelly | <input type="checkbox"/> Denise Grafton |
|--|--|---|---|

This is an official document. Please retain the original in your files.

CURRICULUM VITAE

A. NAME: Heather M. Clarke Thomas

B. EDUCATION:

Degree	University	Department	Year
B.Sc.	University of Western Ontario (Brescia University College)	Home Economics	1993
M.Sc.	University of Western Ontario	Health & Rehabilitation Sciences	2008
Ph.D. Candidate	University of Western Ontario	Health & Rehabilitation Sciences	In Progress (commenced 2008)

C. EMPLOYMENT HISTORY:

Dates	Rank/Position	Department	Institution/Firm
2011	Online Course Developer and Instructor	Centre for Flexible Learning	Nipissing University
2006 – present	Instructor	Division of Food and Nutritional Sciences	Brescia University College
2004 – present	Adjunct Professor	Division of Food and Nutritional Sciences	Brescia University College
1998 – present	Guest Lecturer & Proctor	Faulty of Health Sciences; Division of Food and Nutritional Sciences; School of Health Sciences	University of Western Ontario; Brescia University College; Fanshawe College

1995 - present	Public Health Dietitian	Chronic Disease Prevention & Tobacco Control Team	Middlesex-London Health Unit
1994 – 1995	Promotions Assistant	Fresh For Flavour	Canadian Produce Marketing Association
1993 – 1994	Public Dietitian	Health Nutrition Department	Leeds, Grenville, & Lanark District Health Unit

D. ACADEMIC HONOURS AND AWARDS:

Honours:

- 2011 – Ontario Society of Nutrition Professionals in Public Health Peer Recognition Award.
- 2007 – 2009 Dean’s Honour Roll of Teaching, Brescia University College.
- 2007 – London In Motion Community Forum. Invited Member and Participant.
- 2007 – Families in Action Grant Announcement. Invited Participant.
- 2007 – Healthy Environments Consultation. University of Western Ontario. Invited Member and Participant.
- 2005-2006 – Nominated for Ontario Society of Nutrition Professionals in Public Health Peer Recognition Award.
- 2005 – Active London 2010 Community Forum. Invited Member and Participant.
- 2005 – Awarded long-time employee service award (10 years) from Middlesex-London Health Unit.
- 2004-2011 – Ontario Society of Nutrition Professionals in Public Health Volunteer Appreciation Acknowledgement

Awards:

- 2011 – University of Western Ontario. Graduate Research Assistant. (Winter Term, 2011). \$5921.71.
- 2011 – University of Western Ontario. Faculty of Health Sciences Graduate Scholarship (Summer Term, 2011). \$2194.13.
- 2011 – University of Western Ontario. Faculty of Health Sciences Graduate Scholarship (Winter Term, 2011). \$2194.13.

- 2010 – University of Western Ontario. Graduate Research Assistant. (Fall Term, 2010). \$1189.71.
- 2010 – University of Western Ontario. Faculty of Health Sciences Graduate Scholarship (Fall Term, 2010). \$2768.32.
- 2010 – University of Western Ontario. Faculty of Health Sciences Graduate Scholarship (Winter Term, 2010). \$5817.51.
- 2010 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Summer Term, 2010). \$2185.28.
- 2010 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Spring Term, 2010). \$2185.28.
- 2010 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Winter Term, 2010). \$2185.28.
- 2009 – University of Western Ontario. Graduate Research Assistant. (Winter Term, 2009). \$3632.23.
- 2009 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Fall Term, 2009). \$2632.98.
- 2009 – University of Western Ontario. Graduate Research Assistant. (Fall Term, 2009). \$3632.23.
- 2009 – Faculty of Health Sciences Graduate Student Conference Travel Award - \$500.00.
- 2009 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Summer Term, 2009). \$2235.22.
- 2009 – University of Western Ontario. Faculty of Health Sciences Graduate Scholarship (Winter Term, 2009). \$3644.79.
- 2009 – Faculty of Health Sciences Graduate Thesis Research Fund. \$282.49.
- 2008-2009 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Fall Term, 2008). \$8387.99.
- 2007-2008 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Summer Term, 2008). \$1816.67.
- 2007-2008 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Winter Term, 2008). \$1816.67.
- 2007-2008 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Fall Term, 2007). \$1816.67.
- 2007-2008 – University of Western Ontario. Western Graduate Research Scholarship (WGRS) Rehabilitation Sciences Scholarship (Summer Term, 2007). \$1551.00.
- 1984 – Awarded entrance scholarship McMaster University \$2000.00 (declined).
- 1984 – Ontario Scholar Award. \$200.00.

E. SCHOLARLY AND PROFESSIONAL ACADEMIC ACTIVITIES:

- 2011 Faculty E-Learning Community, Top Hat Monocle Educational Technology Inservice, Participant.
- 2010 MBA Youth Conference, Invited Presenter.
- 2010 FoodNet Ontario Making Connections Workshop, Invited Presenter.
- 2010 Health and Rehabilitation Sciences Annual Research Day, Invited Presenter.
- 2010 Ontario Society of Nutrition Professionals in Public Health, Annual Nutrition Exchange, Invited Presenter.
- 2010 Bring Food Home, Sustain Ontario Annual Conference, Invited Presenter.
- 2009 Engage London, Invited Participant.
- 2009 Dietitians of Canada Annual Internship Forum, Ryerson University, Organizing Committee and Invited Speaker – Core Public Health Nutrition Lecture.
- 2010 Dietitians of Canada Annual Internship Forum, Ryerson University, Organizing Committee and Invited Speaker – Core Public Health Nutrition Lecture.
- 2009 Ontario Public Health Association, Food and Beverage Marketing to Children Workgroup. Invited Member and Participant.
- 2009 Association of Local Public Health Agencies (alPHA) Winter Semi-Annual Meeting. Novotel Toronto Centre Hotel, Organizing Committee and Invited Participant.
- 2008 Healthy Eating Healthy Physical Activity Work Group: Measurement and Tracking Subcommittee (City of London). Invited Member and Participant.
- 2008 Future Professors Series, Teaching Support Centre, University of Western Ontario, Teaching Portfolios: Documenting Your Teaching.
- 2008 Future Professors Series, Teaching Support Centre, University of Western Ontario, Writing a Teaching Philosophy Statement.
- 2007 Intentional Youth Development Workshop. Invited Participant.
- 2007- present Director, London Community Resource Centre.
- 2007 Research Proposal Coordinator, SSHRC Standard Research Grants. “The development, implementation and evaluation of a culturally-based coaching program for the health and wellness of Aboriginal women.” (University of Western Ontario).

- 2007 The Teaching Assistant Training Program, Teaching Support Centre, University of Western Ontario, (successful completion of an interdisciplinary Course for Graduate Teaching Assistants on the strategies and practice of teaching at the university level).
- 2007 Ontario Physical and Health Education Association of Ontario, “Menu of Choices” Master Trainer Online Workshop participant to achieve Menu of Choices Master Trainer designation.
- 2007 College of Dietitians of Ontario Continuing Education, “The Only Constant is Change Recent Developments in Health Law.”
- 2007 College of Dietitians of Ontario Jurisprudence Knowledge and Assessment Test (successful completion of this assessment, April 2007).
- 2004-2010 Chair, Healthy Eating Active Living Workgroup (Middlesex-London Health Unit).
- 2004-present Director, London Food Bank.
- 2000-present Chair, Women Living Healthy Community Action Team (Ontario Heart Health Program).
- 2000-2006 Secretary-Treasurer, Ontario Society of Nutrition Professionals in Public Health.
- 1998 – present Preceptor to Dietetic Interns, primarily from London Health Sciences Centre and Brescia University College
- 1998-2007 Member, Hunger Relief Action Coalition (formerly Hunger Relief Advisory Committee).
- 1995-1996 Member, Ontario Public Health Association.
- 1995-present Member, Ontario Society of Nutrition Professionals in Public Health.
- 1995-present Member, Southwest Region Nutrition Committee.
- 1995-2002 Member, London Interagency Nutrition Council.
- 1994-present Licensed Registered Dietitian with the College of Dietitians of Ontario
- 1993-1995 Member, Dietitians of Canada (formerly Canadian Dietetic Association)

Abstracts, Presentations at Professional Meetings:

LaPorta, J., Mandich, A., Murray, C., Simpson, K., & **Thomas, H.** Healthy Eating Project. Ontario Association of Children’s Rehabilitation Services, Toronto, Ontario, November 6-8, 2011. **Poster Presentation.**

LaPorta, J., Mandich, A., Murray, C., Simpson, K., & **Thomas, H.** Healthy Eating Project. Ontario Association of Children's Rehabilitation Services, Toronto, Ontario, November 6-8, 2011. **Oral Presentation.**

Glen, K.E., **Thomas, H.M.**, Loebach, J.E., Gilliland, J.A., & Gobert, C.P. Fruit and vegetable consumption patterns among junior elementary students in a London, Ontario neighbourhood. Canadian Nutrition Society Annual Meeting, Guelph, Ontario, June 2-4, 2011. **Poster Presentation.**

Thomas, H. & Davies, L. Cook It Up! Learnings from a community-based cooking program for at-risk youth. Ontario Agri-Food Education Inc. Annual General Meeting, Milton, Ontario, April 14, 2011. **Oral Presentation and Poster Presentation.**

Thomas, H. & Davies, L. Cook It Up! Learnings from a community-based cooking program for at-risk youth. MBA Youth Conference, Barrie, Ontario, November 17, 2010. **Oral Presentation.**

Thomas, H. Cook It Up! Learnings from a community-based cooking program for at-risk youth. FoodNet Ontario Making Connections Workshop, London, Ontario, November 8, 2010. **Oral Presentation.**

Thomas, H. Cook It Up! Early learnings from a community-based cooking program for at-risk youth. Ontario Society of Nutrition Professionals in Public Health Annual Nutrition Exchange. Niagara-on-the-Lake, Ontario, May 13, 2010. **Oral Presentation.**

Thomas, H. Cook It Up! Early learnings from a community-based cooking program for at-risk youth. Health and Rehabilitation Sciences Annual Research Day, February 23, 2010. **Oral and Poster Presentation.**

Thomas, H., & Davies, L. Cook, Eat, Learn: Youth Food Literacy Programs. Sustain Ontario Bring Food Home Annual Conference, Kitchener, Ontario, March 4 – 6, 2010. **Oral Presentation.**

Thomas, H., Irwin, J., & Davies, L. Cook It Up! A community-based cooking program for at-risk youth. Ontario Public Health Association Annual Conference. Toronto, Ontario, November 1 – 4, 2009. **Abstract Submitted.**

Thomas, H., Irwin, J.D., Tucker, T., Fellner, L. Healthy Eating and Active Living: Practices of after-school childcare providers. Ontario Public Health Association Annual Conference. Toronto, Ontario, November 1 – 4, 2009. **Abstract Submitted.**

Thomas, H. Commercial Food Marketing to Children – Update from alpha. Ontario Society of Nutrition Professionals in Public Health Annual Nutrition Exchange. Toronto, Ontario, May 20 – 21, 2009. **Oral Presentation.**

Thomas, H.M., Irwin, J.D., Watson, P. Strike it Healthy: A Formative Evaluation. National Obesity Summit 2009, Kananaskis, Alberta, May 7 – 10, 2009. **Poster Presentation.**

Thomas, H.M., Irwin, J.D., Tucker, T., Fellner, L. Healthy Eating and Active Living: Practices of after-school childcare providers. National Obesity Summit 2009, Kananaskis, Alberta, May 7 – 10, 2009. **Oral Presentation.**

Thomas, H.M., Irwin, J.D., Watson, P. Strike it Healthy: A Formative Evaluation. Health and Rehabilitation Sciences Research Forum, London, Ontario, February 25, 2009. **Poster Presentation.**

Thomas, H. Strike it Healthy: A Formative Evaluation. Public Health In Action Symposium. London, Ontario. November 24, 2008. **Poster Presentation.**

Thomas, H. Food Choices in Recreation Facilities in Middlesex-London: A Needs Assessment. Public Health In Action Symposium. London, Ontario. November 24, 2008. **Oral Presentation.**

Thomas, H., Hill, L. G.I.R.L.s Take Charge: Creating a Healthy Lifestyle Supportive Environment. Public Health In Action Symposium. London, Ontario. November 24, 2008. **Oral Presentation.**

Thomas, H. Strike it Healthy: A Formative Evaluation. Niagara Public Health Summit. Niagara Falls, Ontario. October 26 – 29, 2008. **Poster Presentation.**

Thomas, H. Food Choices in Recreation Facilities in Middlesex-London: A Needs Assessment. Niagara Public Health Summit. Niagara Falls, Ontario. October 26 – 29, 2008. **Oral Presentation.**

Thomas, H. G.I.R.L.s Take Charge: Creating a Healthy Lifestyle Supportive Environment. Niagara Public Health Summit. Niagara Falls, Ontario. October 26 – 29, 2008. **Abstract Submitted.**

Thomas, H. Clarke. Youths' Perspectives on Healthy Bodyweight Promotion. 1st Canadian Obesity Student Meeting. Quebec City, Quebec. June 4 – 6, 2008. **Poster Presentation.**

Thomas, H. & Irwin, J. D. Healthy Bodyweight Promotion for Youth. International Society of Behavioral Nutrition and Physical Activity. Banff, Alberta. May 22 – 24, 2008. **Oral Presentation.**

Thomas, H. Clarke & Irwin, Jennifer D. Youths' Perspectives on Healthy Bodyweight Promotion. The University of Western Ontario, Health and Rehabilitation Sciences Graduate Research Forum. London, Ontario. March 5, 2008. **Poster Presentation.**

Thomas, H. Clarke & Irwin, Jennifer D. Youths' Perspectives on Healthy Bodyweight Promotion. The University of Western Ontario, Faculty of Health Sciences Research Day. March 28, 2008. **Poster Presentation.**

Thomas, H. Clarke. Youths' Perspectives on Healthy Bodyweight Promotion. Active London 2010: London In Motion Community Forum on Physical Activity Promotion. London, Ontario. January 15, 2008. **Poster Presentation.**

Thomas, H. Healthy Bodyweight for Youth Study. Public Health In Action Symposium. London, Ontario. December 10, 2007. **Oral Presentation.**

Thomas, H. Clarke. Healthy Bodyweight Promotion for Youth. Ontario Public Health Association Annual Conference. Toronto, Ontario. November 18-21, 2007. **Poster Presentation.**

Thomas, H. Clarke. Healthy Bodyweight Promotion for Youth. Society of Graduate Studies 20th Annual Western Research Forum. London, Ontario. May 11, 2007. **Oral Presentation.**

Thomas, H. Food Security Advocacy. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. February 15, 2007. **Oral Presentation.**

Thomas, H. Nutritious Food Basket - 2006. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. February 15, 2007. **Oral Presentation.**

Thomas, H. Ontario's Action Plan for Healthy Eating and Active Living. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. September 21, 2006. **Oral Presentation.**

Brewer, R., **Thomas, H.M.C.** It's SLOW Good Communication Campaign. Ontario Public Health Association Annual Conference. Toronto, Ontario. November 22-23, 2005. **Poster Presentation.**

Thomas, H. Nutritious Food Basket – 2005. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. November 17, 2005. **Oral Presentation.**

Thomas, H. 2004 Chief Medical Officer of Health Report: Healthy Weights, Healthy Lives. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. January 20, 2005. **Oral Presentation.**

Thomas, H. Nutritious Food Basket - 2004. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. October 21, 2004. **Oral Presentation.**

Thomas, H. Ontario Food Survey. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. January 15, 2004. **Oral Presentation.**

Thomas, H. Food Biotechnology. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. January 20, 2000. **Oral Presentation.**

Thomas, H. Food Labeling in Canada. Report to the Middlesex-London Health Unit Board of Health. London, Ontario. December 16, 1999. **Oral Presentation.**

Clarke, H. Awareness and Perceived Impact among Teachers, Nurses, and Dietitians of Canada's Food Guide to Healthy Eating. Unpublished Report, Ottawa Regional Dietetic Internship, Ottawa, Ontario, Canada. Dietitians of Canada Annual Conference, Montreal, Quebec. 1994. **Poster Presentation.**

F. GRADUATE SUPERVISIONS:

Overview: Brescia University College implemented a graduate program in 2006. As an Adjunct Professor with Brescia, I have begun to provide co-supervision

graduate students as well as mentoring of graduate students for the internship component of their MSc (Foods and Nutrition) degree.

	Completed	In Progress
Masters Co-Supervision	0	1
Masters Thesis Advisory Committee Membership	0	
Masters Thesis Examination Committee Membership	0	

Masters Supervision:

Exploring the use of the Community Gardens by the Karen Community in London, Ontario. (K. McComb). Master of Science (Food and Nutrition) in progress. *Role: Co-Chief Supervisor.*

G. TEACHING:

a) Undergraduate Courses Taught:

***Overview:** I have provided guest lectures to undergraduate and graduate students in the Bachelor of Sciences (BSc) Program (Food and Nutritional Sciences) at Brescia University. Recently, I have been an invited guest lecturer in the Faculty of Health Sciences (HBSc Program).*

1998-2011:

***Foods and Nutrition 025 a/b: Food and Nutrition Issues.** Registration for this course is limited to students in the Food and Nutritional Sciences Program.*

Course description: An introductory study of local and global food and nutrition problems and the factors that affect them: consumer behaviour, agricultural and industrial development, environment and population issues, national policies and international agreements.

Foods and Nutrition 361 a/b: Fundamentals of Community Nutrition.

Course description: The role of nutrition at the local, national and international levels. Emphasis placed on nutrition education, food habits, survey methodology, and current topics in the area of community nutrition. Guest lecturer.

Foods and Nutrition 364a/b: Nutrition, Aging and Health.

Course description: A study of the relationships among nutrition, aging and health including the current and projected aged Canadian population, their nutritional needs, limitations (economic, physical, behavioral, etc) to meeting those needs, nutrition/age related health issues and program/services available or needed. Guest lecturer.

Foods and Nutrition 462 a/b: Selected Topics in Community Nutrition.

Course description: This course will examine current issues in the practice of community nutrition. Practical experience will be emphasized through field work and/or placement with public health units. Guest lecturer.

Foods and Nutrition 1021, 2021: Nutrition for Modern Living (formerly Foods and Nutrition 021 a/b).

Course description: A survey of human nutritional needs including nutrient requirements, nutrient functions, and sources of nutrients in foods. Maternal and infant nutrition, food additives, food legislation, world food problems, and other current topics are covered in this course. Lecture development and instruction.

Health Sciences 308G: Creative Service Delivery in Rural Communities.

Course description: This course examines rural Canadian and international programs designed to improve the health status of individuals and populations. Guest lecturer.

Health Sciences 306 Intersession: Health Promotion in Canada.

Course description: This course provides an overview of health promotion and disease prevention in Canada; health promotion models and theories; health promotion program planning, implementation, and evaluation including needs assessments, social marketing and community advocacy. Guest lecturer.

Human Ecology 022G; Human Ecology 2222F: Professional Perspectives.

Course description: This course provides an overview of the variety of professional opportunities for and perspectives of home economists and food and nutrition professionals. Lecture development and instruction.

Health Sciences 206b: Health Occupations.

Course description: Lecture and case studies are used to explore the diversity of health issues and delivery systems within Canada and the

international community. Guest lecturers from health services, industry, and the community will outline current practices as they relate to health services and their relationship to present and future health sciences oriented needs. Guest lecturer.

Health Sciences 1000: Health and Wellness.

Course description: The purpose of the course is to introduce students to the constructs of health and wellness from both personal and societal perspectives. The course covers a range of health-related topics and emphasizes both: (a) population health, with an emphasis on social determinants of health and health disparities amongst

Canadians (Term One); and (b) personal health and wellness, with a particular emphasis on increasing knowledge, awareness, and improving individual health. Guest lecturer.

b) Graduate Courses Taught

Overview: Prior to the development of the MScFN graduate program at Brescia University College, I sought opportunities for educating graduate students in alternative ways via “dietetic internship experiences” rather than through traditional academic graduate studies. In this capacity, I provided community nutrition placements for dietetic interns to obtain public health nutrition competencies through the supervision of numerous dietetic interns annually over the course of three to eight weeks. Health agencies requesting supervision of dietetic interns in a community nutrition setting include the following:

London Health Sciences Centre (1998-present)

Hamilton Health Sciences Centre (2002, 2003)

Calgary Health Region (2002)

Sunnybrook Women’s Hospital (2003)

Brescia University College MScFN – Internship Stream (2006-present)

Additionally, with the newly implemented Master of Science program at Brescia University College, I developed and co-facilitated a graduate level course focusing on Community Nutrition and Education:

Food and Nutrition 9666b: Community Nutrition and Education.

Course description: This course is an advanced study of the principles and practice of community nutrition and education. Based on an understanding of the impact of public policy and social determinants on health, the course explores health promotion concepts and strategies, the writing of grant

proposals, program planning and evaluation, and policy analysis through literature readings, class discussions, independent work, and case studies. Students will apply their learning through the completion of a comprehensive grant proposal, lecture development and provision.

H. EXTERNAL RESEARCH FUNDING:

Thomas, H.M., Reffle, J., Fellner, L., Tucker, P. (2009). Healthy Eating Active Living Resource Development and Training for After-School Childcare Providers. Ministry of Health Promotion- Healthy Communities Fund. \$4,380.

Thomas, H.M., Davies, L., Irwin, J.D., Tucker, P., Battram, D. (2009). Cook It Up: A Community-Based Cooking Program for At-Risk Youth. Ontario Ministry of Agriculture, Food, and Rural Affairs. \$50,000.

Thomas, H.M., Davies, L. (2009). Cook It Up: A Community-Based Cooking Program for At-Risk Youth. Healthy Living Partnership of Middlesex-London. \$5000.00.

Thomas, H.M., Davies, L. (2009) Cook It Up: A Community-Based Cooking Program for At-Risk Youth. Ontario Pork

Thomas, H.M., Davies, L. (2009). Cook It Up: A Community-Based Cooking Program for At-Risk Youth. Ontario Bean Producers Marketing Board.

I. INTERNAL RESEARCH FUNDING:

Thomas, H.M.C. (2009). Faculty of Health Science Graduate Thesis Research Fund. \$282.49.

Thomas, H.M.C., (2009). Faculty of Health Sciences Graduate Student Conference Travel Fund. \$500.00.

J. PUBLICATIONS:

Overview: My research interests focus on two major streams: 1) healthy bodyweight-related behaviours of children and youth; and 2) food security.

a) Life-time summary (count) according to the following categories:

Chapters in Books: 1

Papers in Refereed Journals: 6

Major Invited Contributions and/or Technical Reports: 65

Abstracts, Presentations at Professional Meetings: 35

Works in Preparation: 2

b) Details:

Please note that my former surname was Clarke[‡]

Text Book Chapters:

Core Concepts in Health, First Canadian Edition, McGraw-Hill Ryerson (under review) Chapter 5: Nutrition Basics.

Publications in Refereed Journals:

Thomas, H.M.C., & Irwin, J.D. (under review). Exposing negatives into positives: Using Photovoice with at-risk youth participating in a community-based cooking program. *Canadian Journal of Dietetic Practice and Research*.

Glen, K.E., **Thomas, H.M.**, Loeback, J.E., Gilliland, J.A., & Gobert, C.P. (under review). Fruit and vegetable consumption patterns among junior elementary students in a London, Ontario neighbourhood. *Canadian Journal of Dietetic Practice and Research*.

Thomas, H.M.C., and Irwin, J.D. (under review). Cook It Up! A community-based cooking program for at-risk youth: Overview of a food literacy intervention. *BMC Public Health*.

Thomas, H., Tucker, T., Fellner, L., & Irwin, J. (in print). Healthy Eating and Physical Activity challenges and opportunities in after-school childcare programs: Providers' perspectives. *Child Health and Education: An Interdisciplinary Journal*.

Thomas, H. & Irwin, J. (2010). Food Choices in Recreation Facilities: Operators' and Patrons' Perspectives. *Canadian Journal of Dietetic Practice and Research*, 71(4), 180-185.

Thomas, H. & Irwin, J. (2009). What is a Healthy Body Weight? Perspectives of overweight youth. *Canadian Journal of Dietetic Practice and Research*, 70(3); 110-116.

Published Book Reviews:

Thomas, H.M. (2007). Review of the book *Nutrition Policy in Canada, 1870-1939*. *Canadian Journal of Public Health*. (in print).

Technical Writings:

Thomas, H. Nutritious Food Basket Costing Survey Results and Advocacy Opportunities. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2011.

Thomas, H. & Leacy, K. Food Security, Literacy, and Skills Programs in Middlesex-London. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2011.

Canadian Public Health Association. (2011). The Basic Shelf Cookbook. Contributing author.

Thomas, H. & Fellner, L. Healthy Bodies Happy Kids Toolkit: A resource for after-school program providers. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2011.

Thomas, H. & McKinnon, K. Dietary Reference Intakes: Calcium and Vitamin D. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2011.

Thomas, H. Labeling of Caffeine Content in Prepackaged Foods. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2010.

Thomas, H. Eatright Ontario Local Health Unit Report. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2010.

Thomas, H. Cook It Up! A community-based cooking program for at-risk youth. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2009.

Thomas, H. Food Choices in Recreation Facilities: results highlighting Operators' and Patrons' Perspectives. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2009.

- Thomas, H.** Healthy Tidbits: An Evaluation Study. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2008.
- Thomas, H.** G.I.R.L.s Take Charge: Creating a Healthy Lifestyle Supportive Environment. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2008.
- Thomas, H.** Strike it Healthy: A Community-Based Obesity Prevention Strategy. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2008.
- Thomas, H.** Food Choices in Recreation Facilities in Middlesex County and the City of London: A Needs Assessment. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** Healthy Weights for Healthy Kids: Update on the Report of the Standing Committee on Health. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** EatRight Ontario. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** The development, implementation and evaluation of a culturally-based coaching intervention for Aboriginal women with obesity. Literature Review for inclusion in SSHRC research proposal, University of Western Ontario, 2007.
- Thomas, H. & McKinnon, K.** Ultraviolet Radiation, Vitamin D and Health: An Update. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** Northeast Food Depot Taste Test Booth. Nutrition and Food Security Network Newsletter, Vol. 15, No. 1, Spring 2007.
- Thomas, H.** Healthy Weights for Healthy Kids: Report of the Standing Committee on Health. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2007.

- Thomas, H.** Eating Well with Canada's Food Guide. Report to the Middlesex-London Health Unit Board of Health, London, ON; Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** Cook it Up Healthy: March is National Nutrition Month. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** Food Security Advocacy. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** Nutritious Food Basket - 2006. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2007.
- Thomas, H.** Neighbourhood Food Depot Taste Test Booth: Evaluation. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.
- Thomas, H.** Ontario's Action Plan for Healthy Eating and Active Living. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.
- McKinnon, K. & **Thomas, H.** Key Findings from the North American Conference on UV, Vitamin D and Health. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.
- Thomas, H.** Neighbourhood Food Depot Taste Test Booth.. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.
- Thomas, H.** Improving the Health of Canadians: Promoting Healthy Weights. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.
- Thomas, H.** & McKinnon, K. North American Conference on UV, Vitamin D and Health. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.

McCall, B., Garrity, B., & **Thomas, H.** Taking Action for Healthy Living: Funding Opportunity. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.

Thomas, H. Geography of Emergency Food Assistance in London, Ontario Amendment. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2006.

Thomas, H. Nutritious Food Basket – 2005. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2005.

Luciani, M., Gilliland, J., & **Thomas, H.** Geography of Emergency Food Assistance in London, ON Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2005.

Thomas, H. Healthy Weights, Healthy Lives: Move to Action Update. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2005.

Thomas, H. It's SLOW Good Communication Campaign. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2005.

Thomas, H. 2004 Chief Medical Officer of Health Report: Healthy Weights, Healthy Lives. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2005.

Thomas, H. (2005). *Healthy Weights, Healthy Lives in Middlesex-London.* Unpublished Report. Middlesex-London Health Unit, London, Ontario, Canada.

Thomas, H. Community Food Advisor Program – Interim Update. Report to the Middlesex-London Health Unit Board of Health, London, ON: Environmental Health and Chronic Disease Prevention Services, 2005.

National Institute of Nutrition (1994). *Survey of Educators' Use and Understanding of Canada's Food Guide to Healthy Eating – Report*, National Institute of Nutrition, Ottawa, Ontario, Canada (contributing author).

Brydges Szabo, L. & **Clarke, H.** (1993). *Food Security and Health for All: Issues and Strategies for Public Health Nutrition*. Unpublished Report, Middlesex-London Health Unit, London, Ontario, Canada.

Plus 25 additional Board of Health Reports, Middlesex-London Health Unit Board of Health, London, Ontario, Canada. (1999-2004).

Works in Preparation:

Thomas, H.M., & Irwin, J.D. Cook It Up! A community-based cooking program for at-risk youth program description.

Thomas, H.M., & Irwin, J.D. Cook It Up! Formative evaluation of a community-based cooking program for at-risk youth.

Thomas, H.M., & Irwin, J.D. Using Photovoice to describe barriers and facilitators to the development of cooking skills in youth.

Tucker, P., **Thomas, H.M.,** & van Zandvoort, M. Perceived body image in young adolescent females and its effect on their health.

K. MEDIA INVOLVEMENT:

Regular monthly guest on *A-Channel Morning television* program 2000-2009.

Regular guest on *Saturday Morning's with Cheryl Weedmark* on AM980 since 2009.

Regular bi-weekly guest (since 1995) on *Rogers First Local, Today's Londoner, and Daytime*, Rogers Community Television.

Invited guest on *Standard Radio* stations and *CBC* radio (Radio 1) since 2005.

Regular contributor to "Every Bite Counts," a nutrition column appearing bi-weekly in the *London Free Press* newspaper; 1995-2007.

Regular columnist in *The Mom and Caregiver* monthly magazine for parents since 2005.

Regular columnist in *themonline.com* monthly electronic magazine for parents since 2005.

Provide weekly and biweekly live and taped interviews and written articles on a variety of nutrition topics including but not limited to

nutrition throughout the lifecycle, obesity prevention, chronic disease prevention, health promotion, and clinical nutrition.

9. COMMUNITY SERVICE:

2009-2010, Healthy School Committee, Riverside Public School.

2009, Assistant Coach, Boys U8 Soccer Team (Oakridge Rangers), Oakridge Optimist Soccer.

2007-Present, Heart and Stroke Foundation of Ontario, Regional Health Partnership, SPARK Together for Healthy Kids (formerly Healthy Living/Healthy Weights Aim).

2007-present, London Community Resource Centre Board of Directors, Director (Secretary)

2006-2007, Brescia Mentor Program, Mentor to 2nd year Brescia University College Food and Nutritional Sciences student.

2005-2006, Safe and Healthy School Committee, Riverside Public School.

2004-present, London Food Bank Board of Directors, Director.

Signature: _____

Date: _____