

Describing Hunger-related Outcomes in a Community Kitchen located in the Pacific Northwest,  
United States

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**Abstract**

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Hunger exists in the United States. Hunger is associated with poor health outcomes across the lifespan such as failure to thrive, obesity, anxiety and depression (Harper, 2014; Lee et al., 2012). Community kitchens (CK) are self-help/mutual aid groups that aim to address issues of hunger by collective participation in the obtainment, preparation, and often consumption of food (Tarasuk & Reynolds, 1999, p.13). There is a paucity of research on community kitchen (CK) initiatives in the United States. This study sought to identify and describe hunger-related community kitchen participant outcomes in a community kitchen located in the Pacific Northwest, United States that served participants in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and local community members. Major findings support and offer additional insights into what is known about community kitchen outcomes to date in other countries. In addition, CK member descriptions expanded current definitions of quantitative, qualitative, social and psychological dimensions of hunger. Hunger outcomes were described by CK members as occurring on multiple ecological levels. The potential of community kitchens in reaching additional groups in the United States vulnerable to hunger will rest on outside support and recognition of the important work they continue to do.

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## **Dedication**

To the community members and partners who made this work possible.

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United States

**Introduction and Background**

Hunger exists in the United States. Hunger is conceptualized through four dimensions—quantity, quality, psychological and social (Radimer, Olson & Campbell, 1990). These dimensions occur within socio-ecological levels of hunger at the individual, family and community levels. The quantity dimension of hunger refers to “food depletion” at the household level and “insufficient intake” at the individual level (Radimer, Olson & Campbell, 1990, p. 1545). The quality dimension refers to “unsuitable food” at the household level and “inadequate diet” at the individual level” (Radimer, Olson & Campbell, 1990, p. 1545). The psychological dimension refers to “food anxiety” at the household level and “feeling deprived, lack of choice” at the individual level (Radimer, Olson & Campbell, 1990, p. 1545). Whether or not quantity, quality, and psychological dimensions of hunger are interpreted as a problem is influenced by “whether the household food was acquired in socially accepted ways such as with income or food stamps, but not through charity” (Radimer, Olson & Campbell, 1990, p. 1545). Likewise, whether or not individual dimensions are interpreted as a problem is influenced by “whether a person felt deprived and/or without choice about eating this way” (Radimer, Olson & Campbell, 1990, p. 1545). This leads to the fourth dimension of hunger, the social dimension, referring to “unacceptable means of food acquisition” at the household level and “disrupted eating pattern” at the individual level (Radimer, Olson & Campbell, 1990, p. 1545).

Hunger in the United States is currently measured through the related concept ‘food insecurity’. The United States Department of Agriculture (USDA) defines food insecurity as limited or uncertain “availability of nutritionally adequate and safe foods [or the] ability to

acquire acceptable foods in socially acceptable ways” (USDA, 2012). Nationally-administered population surveys rank participants along a continuum from high food security to very low food security using questions such as:

- “Was this statement often, sometimes, or never true for you in the last 12 months? We worried whether our food would run out before we got money to buy more” and
- “In the last 12 months, did you ever not eat for a whole day because there wasn't enough money for food?” (USDA, 2012)

These questions are similar to Radimer, Olson & Campbell (1990) survey items for assessing hunger that was developed through phenomenological research with women who experienced or nearly experienced hunger (“32 white and black women between the ages of 18 and 55 in rural and urban areas of Upstate New York”) (p. 1545). The similarity of Radimer, Olson & Campbell’s (1990) study population to the current study’s population, made using their conceptualization of hunger as a conceptual framework for the identification of hunger-related outcomes in this study particularly relevant. In addition, Radimer, Olson & Campbell’s (1990) measures closely align with those currently being used by the USDA.

In addition to direct measures of food security, the USDA (2012) food security assessment has also included the measurement of behaviors associated with hunger such as “In the last 12 months, did you ever cut the size of your meals or skip meals because there wasn't enough money for food?” Behaviors associated with hunger include: “seeking food from abnormal sources, changing shopping behaviors, changing meal composition, and cutting down on food intake in various ways” (Radimer, Olson & Campbell, 1990, p. 1545). Radimer, Olson & Campbell (1990) found behavioral measures to be insensitive and/or nonspecific indicators of hunger that resulted in including people or households that were not hungry. Additional indirect

measures that have been used to measure the prevalence of hunger include: indicators of income, unemployment, food assistance program participation, dietary intake, and health and nutritional status. These measures have also resulted in including people or households that were not hungry (Radimer, Olson & Campbell, 1990). Generally, risk factors, coping tactics, and physical consequences of hunger are related to hunger but they are not part of the experience of hunger.

There are challenges and difficulties in measuring hunger through surveys. Those cited in the literature include: a sensitive topic that people are unlikely to readily discuss; “hunger may be experienced episodically (e.g., a few weeks in a year) or chronically (e.g. every month)”; different components of hunger are “experienced in different ways and at different times in the household and individuals”; and assessment may not ensure that “the hunger results from limited resources, not time constraints or explicit choice” (Radimer, Olson & Campbell, 1990, p. 1546). Because of these limitations, Radimer, Olson & Campbell (1990) suggested using open-ended questions as a more “amenable format to address some of the difficulties inherent in assessing hunger” via survey (p. 1546).

Hunger is associated with poor health outcomes across the lifespan such as failure to thrive, obesity, anxiety and depression (Harper, 2014; Lee et al., 2012). Inadequate food intake in quality and quantity and the stress and anxiety related to food acquisition work through biopsychosocial pathways to contribute to poor physical, mental, and social health outcomes in vulnerable groups (Connell, Lofton, Yadrick, & Rehner, 2005).

Three main approaches to address hunger are locality development, social planning, and social action (Rothman et al., 2001). Self-help strategies such as bulk buying, home gardens, direct farm sales, roadside stalls, new market creation, and peer education fall within a locality development approach. Lavoie, Borkman and Gidron (1994) consider self-help groups to be

support systems and also refer to them as mutual-help groups characterized by: “[a] commonality of problem, members relating to each other as peers, members playing dual roles as both provider and recipient of help, and member control over the mode of operation” (p.12).

Community kitchens are self-help/mutual aid groups where a group of people come together to collectively obtain, prepare, and often eat food (Tarasuk & Reynolds, 1999, p.13). In a review of community kitchen studies conducted in Canada and Latin America, three main strategies to address participant hunger (often the main purpose of CKs) were found: (a) promoting participant emotional support, (b) enhancing participants’ food knowledge and skills, and (c) increasing participants’ material resources (Tarasuk & Reynolds, 1999; Garrett, 2001; Engler-Stringer & Berenbaum, 2005). Positive participant outcomes have been reported in all three of these areas. For example, in their 2007 study that explored CK participants’ perceptions of changes in food security (quantitative, qualitative, social, and psychological) since becoming involved in a community kitchen, Engler-Stringer and Berenbaum found that “participants in groups that cooked large quantities of food (upwards of five meals monthly) reported some increases in their food resources; participants also reported increased dignity associated with not having to access charitable resources to feed their families; [and] some participants reported decreased psychological distress associated with food insecurity” (p. 75). There is a paucity of research on community kitchen (CK) initiatives in the United States.

The community kitchen in this study emerged from a community need to increase accessibility to quality foods for low income families with few resources and support systems. Community kitchens around the area organized during an economic recession, high rates of hunger and food insecurity, and rising rates of food-related chronic diseases such as diabetes mellitus and hypertension across the lifespan. The area in which the community kitchen in this

study took place was characterized by ethnic diversity; twenty-six percent of the population in the same zip code as the location of the Family CK project identified as Black or African American (United States Census, 2010). Those who identified as White accounted for 30.9%, Asian 32.6%, Hispanic or Latino (of any race) 8.1% and multiracial 5.7% of the population in the same zip code as the community kitchen (United States Census, 2010). The area had the largest youth population from 0 to 14 years-old in the city at 19.7% of the population (United States Census, 2010). Sixty-five percent of the population in the area had no college degree and 35% lived below 200% of the poverty line (\$22,980/year for a household size of one) (Public Health Seattle & King County, 2012). Family households comprised 64.2% of households in the neighborhood and 29.3% have children less than 18 years of age (United States Census, 2010). The area also has some of the highest levels in the county of adults (age 18 and over) who reported that household food money often or sometimes did not last (Communities Count, 2007). The groups at highest risk included those ages 18-44, persons identifying as African American and Hispanic/Latino, women, those whose annual incomes equaled less than \$15,000, and those with a high school degree or less (Communities Count, 2007). Thirty-one percent of adults reported experiencing discrimination in the area in which the community kitchen was located (Communities Count, 2007). The area also had the highest rates of heart disease as cause of death, the highest smoking rate, and 13% of residents rated their health as fair or poor (Public Health Seattle & King County, 2012). Obesity prevalence in the same zip code as the community kitchen was 20% to 22.5 % of the adult population (communities to the north of the area had a prevalence of 15-19.9% or lower and communities to the south and west had a prevalence of 15-19.9% to 22.5-26.0% (Drewnowski, Rehm, Solet, 2007).

Planning for the Community Kitchen began in early 2009 and was implemented in October of that year. Major community kitchen partners included WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) and Parks and Recreation. The WIC clinic was located in close proximity to the community center that housed the community kitchen. Changes in the WIC food package occurred at the same time as community kitchen implementation. A need to assist WIC recipients in utilizing new foods offered in the revised WIC package facilitated a WIC partnership with the community kitchen. The community center in which the community kitchen was based was part of the city's Parks and Recreation Department. This center was the second largest community center in the state. At the time of the program, a neighboring community center closed and residents were directed to the community center in which the community kitchen took place.

The Community Kitchen occurred in the community center kitchen. Childcare was provided for CK participants by the community center. At the beginning of each community kitchen session, participants would sign in and pay a participation fee of \$5/household/cooking session or \$12/three cooking sessions. Participants were not turned away if they could not pay. The structure of the Community Kitchen included room for about eight to twelve families who came together to: plan, prepare, consume, and take home food. Education activities were provided to participants and their families in the areas of: health promotion, nutrition, culinary arts, food safety, and the food system. Activities were tailored over time to meet the needs of the participants and their families.

This study seeks to identify and describe hunger-related community kitchen participant outcomes in the community kitchen project. Specifically, we aim to identify and describe the

impact of community kitchen participation over a period of three months on four dimensions of participants' experiences of hunger:

- Quality
- Quantity,
- Social, and
- Psychological.

### **Methods**

This study used a descriptive, case study methodology based on the constructivist paradigm to identify and describe hunger-related outcomes in a community kitchen (CK) over time (Stake, 1995; Scholz & Tietje, 2002; Yin, 2003). Because there has been minimal formal description and evaluation of community kitchens in the United States, a qualitative approach was used to facilitate an in-depth understanding of hunger-related outcomes in the community kitchen. Prior experience with community kitchens and analysis of the CK literature suggested specific aims for the data collection in this study: To identify and describe the impact of community kitchen participation on Social, Psychological, Quantity and Quality aspects of participant's experience of hunger. A focus on depth of understanding of participant hunger-related outcomes through detailed description from a variety of viewpoints necessitated the use of ethnographic methods. Methods included observations, focus groups and questionnaires (Schensul & LeCompte, 1999; Stake, 2004).

### **Conceptual Framework**

Descriptive, case studies often begin with a guiding conceptual framework (Stake, 1995, p.82). In this study, Radimer, Olson & Campbell's et al. (1990) dimensions of hunger framework was used to guide, organize and analyze data related to participant-reported hunger

outcomes. This framework was outlined in the Introduction and Background section of this thesis and includes the following dimensions of hunger: Quantity, Quality, Social and Psychological.

**Design, Data Collection Tools, and Protocols**

This study utilized a descriptive, case study design with ethnographic methods. Participants were required to be an active CK member in order to be included in the study. Further inclusion criteria were: (a) at least 16 years of age or older, (b) mentally competent, (c) English-speaking, and (d) receiving WIC benefits or participating in the community center. Data was collected throughout a three-month, longitudinal period from October 2009 to December 2009 and included: field notes, focus group audio, and questionnaires. The data collection and preliminary analyses can be divided into three phases over a three-month period, as shown in Table 1. Data collection occurred at monthly community kitchen gatherings as well as at pre-and post-group discussion gatherings.

Table 1. Timeline of Data Collection

Month	Dates	Observations	Focus group	Questionnaire	
				Pre	Post
1	Oct. 2009	25	1	7	0
2	Nov. 2009	25	0	2	0
3	Dec. 2009	25	1	1	7
4	Jan. 2010				
5	Feb. 2010				
6	Mar. 2010				
Total		75	2	10	7

**Recruitment**

Study recruitment was included in the initial phone contact with each participant prior to their involvement in the first community kitchen session. Interested participants were given

detailed instructions about various aspects of the focus groups, questionnaires, and project observations. A verbal commitment to attend the focus groups was obtained by telephone and written consent was obtained prior to the beginning of the focus group. In addition, project participants were re-introduced to the research study by the researcher and CK leader during the pre-session meeting at the beginning of their first community kitchen session. Interested participants were given detailed instructions about the purpose and logistics of the questionnaire prior to administration. Consent was obtained before participating in the questionnaire process.

*Field notes.* The researcher sought to record program logistics in detail during field work in order to identify hunger-related outcomes. Observational field notes captured hunger-related outcomes from the perspectives of the researcher (Tracy, 2012). Observations were conducted in the community center before, during, and after CK sessions. During this time the researcher collected field notes on community kitchen logistics. CK session observations were recorded by hand or dictated into an audio recorder during or immediately after CK participation. Typed or recorded observations were entered into a Microsoft Excel spreadsheet to organize data for analysis. Location or source of data, date, time, day of the week, and total field note hours were noted. Field note titles were arranged to reflect content, and the field notes included analytic reflections. See Appendix A for examples of observation guides used in this study.

*Focus groups.* Focus groups were used to identify, describe and understand hunger-related participant outcomes from the perspectives of community members. According to Tracy (2012), focus groups can assist in learning how a certain group reacts to a shared experience. The group effect can be captured with as few as three participants (Tracy, 2012). Focus group questions were based on a review of the published and lay literature on community kitchens and the interests of the CK leader. Focus group questioning followed recommendations outlined in

Krueger and Casey's (2000) *Focus Groups: A practical guide for applied research*. These recommendations included an icebreaker as a transition into key questions and drawing a picture to prompt insights into participant expectations of a community kitchen (Kueger & Casey, 2000). See Appendix B for focus group tools used in this study.

The Family CK leader primarily facilitated the focus groups with the assistance of the researcher. Focus groups lasted no more than ninety minutes and took place in the community center auditorium before the first CK session and after the last CK session. Focus groups were audio-recorded, and field notes were recorded by the primary researcher and CK leader. The audio recordings were then transcribed verbatim by the primary researcher and entered into a data management system in preparation for analysis.

*Questionnaires.* Questionnaires were developed early in the research process based on prior experience and reviews of community kitchen literature. Questionnaires provided additional clarification to qualitative data that emerged and also identified participant food practices and needs. Gillham's (2008) small-scale social survey development methodology and a previous course taken on survey methods assisted in survey creation. Surveys are known to be effective in answering "who" and "what" questions and were useful to identify Family CK Project participant characteristics such as gender, age, ethnicity, zip code, and health practices and needs. The questionnaire was pilot-tested with the CK leader and Project partners and was revised based on feedback before the project began (Gillham, 2008). Changes included: rewording of questions, revisions in survey layout, and the addition of survey questions that were useful to the CK leader for planning and evaluating CK activities. See Appendix C for questionnaire tools used in this study.

Questionnaires were administered in written form to participants during cooking sessions. Participants were able to ask questions during questionnaire administration, and questions were clarified at this time on an individual basis by the researcher and CK leader. The completion of the questionnaire lasted no more than ten minutes. Survey data were coded and entered into an Excel spreadsheet.

### **Data Management and Analysis Procedures**

This study analyzes observations (N = 75), focus group transcripts (N = 2) and surveys (N = 17) amassed throughout a three-month data collection period, with particular attention to hunger-related outcomes of CK participation. Responses to questionnaires were transferred into Microsoft Excel for analysis. Verbatim transcripts were produced for each focus group and were verified for accuracy. Transcripts were formatted in Microsoft Word using Tables for initial data analysis and then coded text was transferred into Microsoft Excel for further analysis. Data Management followed recommendations from *Doing Qualitative Research Using Your Computer: A Practical Guide* (Hahn, 2008).

The subsequent analysis of data followed the ethnographic analysis procedures as discussed by LeCompte and Schensul (2013) in book 5 of *Ethnographer's Toolkit: Analysis & Interpretation of Ethnographic Data*. Analysis began with an understanding of conceptual bins deriving from Radimer, Olson & Campbell's (1990) conceptual framework of hunger (LeCompte & Schensul, 2013). Data was organized chronologically and by type of data (focus group transcripts, field notes, and questionnaires) into an Excel spreadsheet (LeCompte & Schensul, 2013, p.57-60). Data was read and re-read to gain familiarity and then primary cycle coding began with an examination of both qualitative and quantitative data and the identification

of items that captured ideas around the experience of hunger (LeCompte & Schensul, 2013, p.101-102).

The researcher created a list of codes with a brief definition and example of each. As the analysis became more focused, a codebook (LeCompte & Schensul, 2013, p.138, 145-154) was developed listing key codes, definitions, and examples from the analysis. This codebook mapped how codes emerged and changed over time, with new versions resaved with the date of modification. (LeCompte & Schensul, 2013, p.248). Throughout the coding process, the constant-comparative method (LeCompte & Schensul, 2013, p.101-102) was used to compare the data applicable to each code and to modify code definitions to fit new data (or create a new code). Related items were organized into higher-order patterns (LeCompte & Schensul, 2013, p.154). Given the small sample size and the descriptive nature of this study, the questionnaire findings are exclusively reported using descriptive statistics. Organization of emergent data and further analysis was guided by Radimer, Olson & Campbell's (1990) conceptual framework of hunger.

### **Ethical Considerations**

Study participation was voluntary and participants could withdraw from the study at any point in time without penalty or loss of benefits to which they were otherwise entitled. In order to maintain confidentiality, all typed information was coded. No names were used on the actual data forms. A \$10 Safeway gift card was given to participants in order to compensate them for their time. In addition, food and beverages were provided at each focus group to increase comfort during discussions. This study received approval from the University of Washington and the King County Public Health IRB Department (See Appendix D for consent form). Where

excerpts from questionnaires and focus groups are presented in the results section, names have been removed to protect participants' anonymity.

### **Findings and Discussion**

The background characteristics of community kitchen members, who participated in the study, by study method, are described in Table 2. Eleven of the community kitchen members were given the opportunity for involvement in the research aspect of the project. A total of ten out of eleven community kitchen members were recruited and participated in this study. All ten community kitchen members completed at least one questionnaire and eight of the study participants completed at least one focus group (Table 3).

Table 2. Characteristics of Community Members by Method

Respondent characteristic	Questionnaire (N = 10)	Focus group (N = 8)
Gender		
Male	1	1
Female	9	7
Age range in years (mean)	22-65 (34)	22-65 (36)
Number of people living in the home range (mean)	1-7 (4)	1-7 (4)
Number of children < 18 years-old living in the home range (mean)	0-5 (2)	0-5 (2)
Number residing in same zip code as community center?	6	6
Receiving WIC benefits		
Yes	4	3
No	6	5
Marital Status		
Single	7	5
Married	3	3
Amount (\$) spent on groceries/week		
50	2	2
50-100	3	2
100-150	2*	2
>150	2*	2
Race		
Caucasian	1	0
African American	8	7
Multi-racial	1	1
Were you born in the United States?		
Yes	10	8
No	0	0

Note. \*One participant responded between 100 to >150

Table 3. Data Collection Participation by Method

Participant	October 2009	November 2009	December 2009
1	<sup>a</sup> F	<sup>b</sup> s (pre)	s (post)
2	F s (pre)		Fs (post)
3	F s (pre)		Fs (post)
4	F s (pre)		Fs (post)
5	F s (pre)		s (post)
6	s (pre)		Fs (post)
7			Fs (pre)
8	s (pre)		Fs (post)
9	s (pre)		
10		s (pre)	

Note. <sup>a</sup>Focus group; <sup>b</sup>Survey (pre = pre survey; post = post survey)

Most community kitchen members indicated that they felt confident in their cooking skills at the time the community kitchen and study began. In addition, community members' top reported needs were saving money on food and trying new and different foods. Eighty percent of community members surveyed reported that they never or sometimes prepared or cooked food with others. See Tables 4 and 5 for additional community kitchen member food practices and needs at the time this study began. When asked about why they joined the CK many participants stated financial or health reasons.

Table 4. Top Needs Reported by Community Members

Question	(N = 10)
Save money on food	6
Take food home to eat	2
Try new and different foods	7
Make new friends or social connections	1
Learn cooking/baking skills	3
Learn how to plan and prepare a meal	3
Learn more about nutrition	4
Learn more about food safety	0
Learn how to best use the new WIC package	1

Table 5. Food Practices and Food Security Results for Community Members

Question	Response 1 <sup>st</sup> time questionnaire completed					
	“Never True”		“Sometimes True”		“Often True”	
	n	(%)	n	(%)	n	(%)
I feel confident with my cooking skills.	10	0	10	20%	10	80%
I plan the meals I want to cook before shopping for food.	10	0	10	70%	10	30%
My family and I eat at least one meal per day from a fast food restaurant, convenient store or cafeteria.	9	33.3%	9	44.4%	9	22.2%
I eat grains, vegetables, fruits, dairy products and meats/beans daily.	10	0	10	40%	10	60%
I eat at least 5 servings of fruits and vegetables each day.	10	30%	10	60%	10	10%
I usually need more food than I have.	9	33.3%	9	44.4%	9	22.2%
I prepare or cook food with others.	10	30%	10	50%	10	20%
I usually eat food with others.	10	0	10	40%	10	60%

## Thematic Findings about Quantitative Dimensions of Hunger



Figure 1: Quantity –related thematic findings

Themes that can be grouped under the quantity dimension of hunger include: community retail stores, household equipment, money and time, and individual food. These data are complemented by observation and questionnaire data on the quantities of food cooked or obtained in the community kitchen. Community kitchen members often spoke about changes in quantity of food at the household level and intake at the individual level since participating in the CK (Radimer, Olson & Campbell, 1990, p. 1545).

### *Money and Time*

Community members spoke about the changes in quantity of food in regards to money saved and time saved. For example, in reference to the cost to participate in the CK, one community kitchen member spoke about the value of the quantity of food obtained from the CK for home consumption:

*[It costs] five dollars but I really think you know that ten dollars for all [the food] that we [can] take home I think that 10 dollars is sustainable. I am glad that it is five dollars or twelve for three but I would pay the ten dollars. When we first came here we thought it was five dollars per person we were ready to pay five dollars a head not thinking it was five dollars per household. I don't have that great of finances either but ten dollars I think is well worth it, I would pay.*

Another community kitchen member commented that items made in the kitchen lasted a long time at home:

*The ranch [we made in the kitchen] goes a long way.*

Responses to pre-post questionnaire findings also indicated changes had occurred in the quantity of food available for consumption. Community kitchen members reported that one of the top things they got out of participating in the CK was taking food home to eat. In addition, community kitchen members reported a thirty-three percent reduction in usually needing more food than they have since participating in the CK. Community kitchen members commented on post-questionnaire assessment that a top need of saving money on food had been meant through participating in the CK. Participants also reported learning how to best use the new WIC package as a result of participation in the CK.

Observational findings indicated that community kitchen members consumed on average four and a half different dishes at the community kitchen, and took home, on average, seven and a half food items for consumption in the household.

Findings about time and money were similar to Engler-Stringer and Berenbaum's (2007) qualitative study findings where participants described that with the food from the CK, "they were often more able to make it till the end of the month without either going hungry or having to use the food bank" (Engler-Stringer & Berenbaum, 2007, p. 80). In addition, "in groups that cooked at least 5 meals per family each month, interview participants generally perceived cost savings associated with participation" (Engler-Stringer & Berenbaum, 2007, p. 80).

New findings in regards to the quantitative dimension of hunger included time saved through food preparation. For example, one community kitchen member reported one of the benefits of participating in the CK was being encouraged to plan ahead which led to:

*[Savings] on time and money [in the household].*

Another community kitchen member also commented that:

*[CK participation] reinforces me to make things I can freeze so [I can have] homemade TV dinners for [my son] and myself when I get home.*

Responses to pre-post questionnaire findings also indicated changes had occurred in the frequency of planning meals before shopping for food. A 12.5% increase in planning meals to cook before shopping for food was observed after three months of participation in the CK.

Learning how to plan and prepare a meal was a top need met in the CK reported by participants upon post-questionnaire assessment.

### *Equipment*

Community members also spoke about having enough equipment in the household to prepare food for consumption. For example, one community kitchen member commented that she:

*[Needed] a whole kitchen [to prepare foods she could eat at home].*

Experiences of time saved in household meal preparation as a result of CK participation enhanced household food consumption and expanded the quantitative dimension of hunger to include having enough time as well as food at the household level to have enough to eat at the individual level. In addition, having enough equipment at the household level to prepare food also expands the quantitative experience of hunger.

### *Community Retail Sales*

New findings in regards to the quantitative dimension of hunger at the community level included experiences of hunger related to having (or not having) certain food in the community at the community level. For example one community member commented that:

*I wish Whole Foods was over here.*

Community members considered the food obtained in the CK comparable to what they would obtain at Whole Foods; often comparing the CK class to PCC Natural Markets (a member-owned cooperative with fresh, local and organic foods). For example, one community member commented that her child often requested:

*Mom aren't we supposed to go to the PCC class today? [in reference to the community kitchen].*

The community kitchen provided an alternative retail food outlet in the community, and it provided foods that were perceived as lacking in the community by CK members. Experiences of additional retail food outlets in the community expanded the quantitative dimension of hunger to include having enough desired food retail outlets in the community to have enough 'quality' food to eat at the individual level. Desired quantities of foods that had a certain quality significantly overlaps with the next findings related to food quality in this study.

### **Thematic Findings about Quality Dimensions of Hunger**



Figure 2: Quality –related thematic findings

Themes that can be grouped under the quality dimension of hunger include: community food safety, household taste, variety and health, and individual nutritional adequacy. Community kitchen members often spoke about the changes in the qualitative dimension of hunger i.e. suitability of food at the household level and diet adequacy at the individual level since participating in the CK (Radimer, Olson & Campbell, 1990).

## *Household Taste*

During the post-session focus group, community members commented on foods they liked in the community kitchen:

*One recipe we made that I really like is the chicken enchiladas. If I had to pick a favorite recipe I think that would be it.*

Another community kitchen member also commented that her children liked the enchiladas she brought home from the CK:

*I have to make [the enchiladas] again for Christmas because my kids [loved it].*

In addition, one community kitchen member commented:

*All of the kids were grubbing on [the green bean casserole]. My son ate an entire plate.*

Community kitchen members reported enjoying a ranch substitute sauce made in the community kitchen at home:

*We love [the ranch sauce]. I'm not trying to share. I think everybody liked that. [My husband] said did you leave me any in the jar? I was just eating it with crackers; I was eating it with anything. I probably ate more carrots during that time than I ever had because I was eating it all through the day at work. We were putting it on everything.*

It was often noted that community kitchen members preferred foods they made in the CK that were familiar to them. For example, when the CK leader asked a community kitchen member if there was anything she liked that she made in the CK, the community member responded:

*The roasted chicken, that was good, but I've had it [before] from PCC.*

When the CK leader introduced new foods and/or different ways of preparing familiar foods such as quesadillas, community members commented on the taste:

*I think the easiest thing that I can make that is hardy is that cream of mushroom soup because it seemed like that's really quick to make but I liked almost everything I had except for the enchiladas because it doesn't taste that great without the enchilada sauce and I tried to use salsa, it tasted okay at first, but the combination of something didn't work.*

Another community kitchen member commented on the substitution of bread crumbs for tortilla crumbs in the community kitchen:

*One thing that I didn't particularly care for [was] the tortilla crumbs. [My boyfriend] cooked baked chicken in it [at home] but I didn't particularly care for it. [I] thought if maybe he cooked it on something else or make it a little different it might taste a little better.*

Community kitchen members commented on the seasoning of the tortellini soup made in the CK during the focus group session:

*I doctored [the soup] up a little bit through.*

*I put okra in mine.*

*I liked it [but] I doctored mine up too. I put chili sauce in it.*

Others commented about food pairings:

*[The tortellini soup was more like a] tomato base soup so I went and made a grilled cheese with it [at home] and it was really good.*

The taste of the food made in the CK appeared to be relevant to whether or not CK participants and family members found the food suitable at the household level for consumption.

### *Food Variety*

An additional finding in regards to the qualitative dimension of hunger included food variety or the different types of foods available for consumption. For example, one community kitchen member commented that she cooked and tasted a variety of foods she would take home to her family to try:

*I am here cooking it and tasting it and I can take it home so they can taste it also to see what they like about it.*

### *Health and Nutritional Adequacy*

In addition to variety, community kitchen members also spoke about the ‘healthfulness’ of foods they were consuming since participating in the CK. For example, one community kitchen member commented:

*I think that is what made it taste better and how we all liked [the seasoning mix]; it took out a little bit less of the salt, I was using so much salt.*

Another community member commented on the gluten-free foods she learned how to make in the CK:

*What I liked the most that we made was the sweet potato pie even though I know how to make it but to make it where my sister could have it and that turned out to be good. I told her for Christmas that I will make her a pie.*

Community kitchen members often commented on enjoying learning how to cook in a healthy way in the CK. For example, one community member commented:

*I work with kids and [the community kitchen] taught me how to cook healthy for my kids.*

Another community kitchen member commented:

*Learning and getting the education on what's good for you and what these companies are killing us with and learning the different things we can substitute it for is really beneficial.*

One community kitchen member described getting rid of unhealthy food in the household as a result of participating in the CK:

*I went into my cabinet and threw a lot of my seasoning away and I went and bought the [pink salt] so I am gradually trying to get rid of stuff.*

Responses to pre-post questionnaires indicated that a nine percent increase in eating grains, vegetables, fruits, dairy products and meats/beans daily was reported by community kitchen members post participation in the CK. In addition, community members also increased their consumption of at least 5 servings of fruits and vegetables each day by thirty-three percent after participating in three community kitchen sessions. Likewise, Engler-Stringer and Berenbaum (2007) found that participants described that “food produced in the CKs, much of which contained large amounts of vegetables, increased the variety of their diets” (p. 81).

#### *Food Safety*

New findings in regards to the qualitative dimension of hunger at the community level included experiences of hunger related to having (or not having) safe food in the community at the community level. Community members spoke about food safety issues of shopping at local stores where food was spoiled:

*I will not go into that [store], I hate that store. The only thing I will buy at [Saar's Marketplace] is their vegetables but I will not eat their meat products; the chicken wings hang out the bags. I don't even know how they can even get sell some of that stuff.*

Community kitchen members reported shopping at stores not within the community. For example,

*The WINCO on federal way, I don't know if they still have it, but they have a live bee cage where you can get fresh honey. I haven't been there in a few years but I was doing cartwheels because you could hear the bees and then you get your fresh honey.*

The CK provided a location where they could obtain quality foods as defined by community kitchen members as 'fresh' from the food source.

Responses to pre-post questionnaire findings indicated that a 12.5% reduction had occurred in the frequency of households consuming at least one meal per day from a fast food restaurant, convenient store or cafeteria since participating in the CK. Engler-Stringer and Berenbaum (2007) found that participants described food from the CK as “better than the food bank” (p. 80).

### **Thematic Findings about Psychological Dimensions of Hunger**



Figure 3: Psychological –related thematic findings

Themes that can be grouped under the psychological dimension of hunger include: community food anxiety, household food anxiety, and individual love, respect, stimulation, meaning, and food anxiety. Community members often spoke about the changes in the psychological dimension of hunger i.e. food anxiety at the household level and feelings of

deprivation or lack of choice at the individual level since participating in the CK (Radimer, Olson & Campbell, 1990).

*Love, respect, stimulation and meaning*

During the post-session focus group community kitchen members reported that:

*Meeting new people and having fun [made you] happy. I really felt happy coming here, all of this is just happy. I felt happy going home. It was worth it coming after work, after a hard day.*

Another community kitchen member commented:

*My sister and my brother were talking about [the community kitchen] and I was like okay it sounds fun to come so my first experience, I was sick, but it was still fun because we came together and had fun . It was enjoyable time, nothing negative it was all fun, and then I kept coming and coming and I learned new things and I tasted new things and it is kind of now alright.*

Furthermore, one community kitchen member commented:

*I don't know what I was expecting when I came, but it was a lot different. I thought maybe it was going to be: we come in and we get taught how to make something, but it was actually better when everyone actually got to do it themselves and have their little groups and everything. But it turned out a lot better than what I thought it was going to be. I am glad I came. Hands-on was my favorite part.*

Additionally, community kitchen members reported having fun meeting new people:

*I had fun making new friends.*

The CK appeared to reduced feelings of deprivation through creating a stimulating environment.

One community kitchen member described this best when she spoke of being 'in a rut':

*I spent nine years at a childcare center. I just needed to venture out more, I felt stuck right there and then I was like okay well I go [to the community kitchen] and I'll see. [Now] my kids are like is it the PCC class yet? I really enjoyed the experience and I am glad that [I stuck with it]. Usually I'll try something and I'll end up not finishing it and that is something this year that I really [wanted to do].*

Responses to pre-post questionnaire findings indicated that several community member needs were met through participating in the CK over three months. These included: learning about how to plan and prepare a meal, how to best use the new WIC package, nutrition, and trying new and different foods. Meeting needs meant that the CK was addressing meaningful aspects of participants' lives. Addressing meaning in participants' lives can also address feelings of deprivation.

Additionally, community kitchen members commented that:

*I feel that [the community kitchen] allowed me and my mom and my sister to have [something] to do together.*

Another community kitchen member found it meaningful to make small changes in diet over time:

*I like that taking how we make it and not trying to totally turn it.*

While community members reported upon post-questionnaire assessment that there was no change in their confidence with cooking skills since participating in the CK (participants had a high level of confidence in their cooking skills upon initial assessment), community members did report in the post-session focus group that:

*Coming here means to me that we get to meet new people and that we get to learn how to cook different foods that we never ate before.*

Additional requests were made by community kitchen members in relation to creating meaningful experiences for them:

*[Can we make a] menu for diabetes because I have a dad and he is diabetic?*

Community members commented that they found the learning in the CK meaningful:

*I think that knowing how, learning how to incorporate different things to make it healthy is key.*

Other members commented on their initial expectations of the CK in regards to meaning:

*I took the little introduction or whatever at WIC and I got a sense of what it was going to be. I just thought it was going to be more tied into the different items that we receive on WIC; I don't know if anyone here is here because of WIC. I thought maybe that was what it was more geared towards but I don't discourage the fact that we are learning how to cook other things as well. I think it would be kind of nice to learn other things that are different. I'm sure there are plenty of other things that you could do with the cheese that you get or the new items that you get now since there are so many different things we get now.*

Community kitchen preparation techniques enhance participants' choices of what they could prepare to eat with items they received on WIC.

Community kitchen members also reported feeling loved and respected in their CK. For example, one community kitchen member described her experience at post focus group:

*I just used words so SHARING, everyone shared a part of themselves every time they came so you get to learn more about people and, LEARNING because everybody learned something that they didn't know from before and I put HELPING cause everyone helped each other, especially me, so that's why I have helping on here and WORKING*

*TOGETHER because everybody worked together really well, COOKING because we all cooked and I have CARING and TEACHING and FAMILY and the heart says LOVE cause I felt a lot of love being here.*

Others commented on the characteristics of CK members:

*We had a nice group of people and we all worked well together.*

*To be honest, I didn't know there was going to be so many nice people. I thought everyone was going to be kind of mean and stuff and up-tight.*

*Working together was good; not knowing people from day one who work well together.*

*I really like the fact that how we all from day one no one knew who was who but yet we all still came like we all knew each other.*

*I think we bonded all really quickly. It really feels nice.*

While making new friends and social connections was not a priority need or outcome of participants on questionnaire assessment, it is clear that participants valued the bonding, love and respect they obtained from participating in the CK.

Anxiety related to fear of the unknown at the individual level appeared to decrease as a result of participating in the CK over time for participants. The CK leader reflected community kitchen member thoughts regarding anxiety when she stated that:

*I am glad you guys trusted me enough to come. Now that you have experienced it you know it is worth it.*

A community kitchen member expressed some of the fear she had in trying new things:

*I think first trying because that is where like a lot of people, like I know myself it is hard for me to try new things. I think if we can just get over ourselves and try it then maybe that will give us enough step to want to do it.*

Responses to pre-post questionnaire findings indicated that participants reported that they were able to try new and different foods in the CK that enhanced their choices about what they ate.

#### Anxiety

Anxiety related to food preparation at the household level was also reduced since participating in the CK. One community member described how she liked having volunteers help with food preparation:

*I think it was fine having somebody else like we did. It takes the pressure off of you. I didn't know how to cut the mushrooms so he showed me how to cut the mushrooms.*

Others commented that:

*[The CK showed me] different ways to not be so stressed out. It was hard to try to find her something to eat and then it was at the point where she just wanted to stay home but now we found a lot of different ways in how we can make stuff that she can still feel part of the family.*

*I pretty much thought it was going to turn out okay. I wasn't really too concerned. I was just happy to learn something else that I could make to eat and I am just hoping that my mom that her taste buds won't be such a challenge, so I just be concerned about my mom because I want her to find something that she likes.*

Community members reported household food anxiety related to household member food preferences or restrictions due to health. CK participation helped reduce some of these anxieties.

While participants indicated in the CK focus group that they liked having help with food preparation, responses to post questionnaire findings indicated that there was no change in preparing or cooking food with others since participating in the CK. However, participants did report that one of their top needs met was saving money on food and taking food home to eat. In

addition, participants reported an increase in planning meals before shopping for food since participating in the CK which could contribute to lowering household food anxiety.

Engler-Stringer and Berenbaum (2007) found that while cooking, participants spoke of worries about financial situations. Others expressed that anxiety related to not having money to buy food had decreased since joining the CK (Engler-Stringer & Berenbaum, 2007).

Anxiety related to meeting new people at the community level in food assistance programs was also addressed through participation in the CK. For example, one participant commented that he was anxious about meeting new people in the CK:

*The fact of meeting new people you know really when you meet new people you don't know what those people are going to be like.*

After participating in the CK, the participant commented that:

*I didn't know there was going to be so many nice people.*

In addition, one community kitchen member expressed some of the anxiety she had about participating in the CK:

*For me, I didn't really know what to expect and my sister was like, try something new, try something new, try something new, and I was like they said they would keep your kids and I was like I am not about to bring my kids down here. That's what I was like, that's one thing I was worried about with my son I was like I don't know who is going to be keeping him I was like so the first day I kind of wanted to keep him at home but I ended up bringing him. [I was worried that you were not going to have] someone who was running it right. [I thought], I'll just tell the lady that I'll go over there and help out the kids but then when I see that you guys had really good people that you picked over there then I was cool and I had no problem with [leaving my] kids.*

For other community kitchen members, they continued to express some anxiety related to the food at the community kitchen:

*It's a little different for me. I guess I am used to one way of cooking and eating and this is totally different.*

In summary, changes in the psychological dimension of hunger i.e. ‘food anxiety’ occurred at the community, household, and individual levels in this case study. In addition, ‘feeling deprived, or lack of choice’ of food consumed was expanded to feeling deprived not only of food but also of love, respect, meaning, and stimulation.

### **Thematic Findings about Social Dimensions of Hunger**



Figure 4: Social –related thematic findings

Themes that can be grouped under the social dimension of hunger include: community retail stores, food processing, and health services; household food acquisition and food preparation; and individual disrupted eating patterns. Community kitchen members often spoke about the changes in the social dimension of hunger i.e. acceptability of food acquisition at the household level and eating patterns at the individual level since participating in the CK.

(Radimer, Olson & Campbell, 1990).

#### *Health Services – WIC*

Unacceptable means of food acquisition included shopping at places like Saar’s Marketplace or receiving poor services from WIC. This led to disrupted eating patterns and

feelings of deprivation or without choice about what they ate. For example, community members spoke about the acceptability of the CK in relation to WIC services they had received:

*So what we would do is probably package everything up in the portions that are appropriate for diabetics so you can see it visually because that is one thing about nutrition education when you are in [the WIC] office it's like you know they show you those rubber food models. No! I want to eat it and see it live.*

They also spoke about the healthfulness of food received on WIC:

*They are trying to make it obviously healthier because a whole bunch of cheese isn't necessary.*

In addition, one community kitchen member commented that she felt WIC personnel did not listen to her:

*When I try to tell them what [my daughter needs], she was already a preemie but as she got older at the time she should have been able to walk she wasn't walking, I kept telling them that she did better drinking whole milk at this point not 2% but they kept wanting to give her 2%. I felt better giving her whole milk even though it was fatty because she was really little. Eventually the one lady started to really listen to what I was saying and I have an excellent pediatrician and they had to say no she needs to stay on whole milk not 2% until she gets to where she needs to be. She was liking cheese and she likes fruit and they kept saying that you can't give her [that], and I said well I am trying to give her whatever she would eat. I noticed when I did all that stuff she began to gain the weight and I don't know if that was something that she passed on but they need to listen to the parents more because they know what they are feeding the kids.*

*Food Preparation*

The community kitchen leader spoke about meeting participants where they were at in the CK:

*One of my goals is that I want to know where you are in your life that's why I made that call before we even started like what do you normally eat and where do you normally shop because I don't just want to come in here and start making quinoa you know, weird stuff you've never heard of, just because I might think that that's healthy but you don't know what it is and then you are going to be like this lady is totally out [of her mind]. What's she trying to do? So that's why I did I tried to start with pasta salad and ranch dressing, something that you are familiar with and show you how to make it from scratch or use different ingredients and it's great to hear that I'm getting more input into what direction we can keep moving in.*

#### *Food Acquisition and Retail*

The community kitchen appeared to be a socially-acceptable alternative to WIC health services and food retail stores such as Saar's Marketplace:

*I don't know like what I was expecting when I came, but it was a lot different. I thought like maybe it was going to be like we come in and we get taught how to make something but it was actually better when everyone actually got to do it you know their selves and have their little groups and everything. But it turned out a lot better than what I thought it was going to be. I am glad I came.*

Community kitchen members also commented on the amount of processed food they found in their community as being socially-unacceptable:

*You know all this processed foods but it is like really hard to find coupons and then PCC has coupons but it is usually stuff that I don't want, I don't eat soy so there is usually like*

*silk and all that kind of stuff where you can get with a coupon. I just wish I could find more coupons.*

At the household level, participants commented on the social acceptability of participating in the CK program as a family to obtain food:

*Well my first experience when I, well what is it that my sister and my brother was talking about and I was like okay it sounds fun to come so my first experience I was sick but it was still fun because like I was saying we came together and had fun and you know it was enjoyable time, nothing negative it was all fun and then I was like I kept coming and coming and I learned new things and I tasted new things and it is kind of now alright.*

#### *Food Preparation*

Many participants commented that they liked how food was prepared in the CK:

*I like that taking how we make it and not trying to totally turn it.*

However, some participants did not feel the same way:

*I guess I am used to one way of cooking and eating and this is totally different. Some of the food I didn't care for.*

Another community kitchen member commented on the disruption of their cultural cooking practices:

*Since you a nutritionist that might not be right. Well you know some people cook differently you know. I will say this the way that the world tries to perceive things and what should be one way sometimes just isn't how it should be you know what I mean? You got to have the ham hock with [greens] you know even though it may not be the [healthy] way. It's got to be there for you to get that flavor that taste.*

It appears that CK preparation methods reduced disruption of cooking and eating patterns for some participants while others felt that food preparation disrupted their way of cooking and eating.

At the household level, social ascribed food preparation roles did not change for participants while participating in the CK. For example, during a focus group session on what participants wanted to make at the next CK, one community kitchen member commented:

*I knew he was going to look at me because that's what they always wants me to make.*

Overall, the social acceptability of the CK was highlighted by community kitchen member recruitment of new participants:

*Everybody was like what kind of classes [are you taking?] I was like you guys need to come and see.*

#### *Overall Perceptions of the Program*

Upon post questionnaire assessment, participants reported that if they had the opportunity, they would continue to participant in their community kitchen. In addition, they also were willing to pay anywhere from 10-20\$/community kitchen if funding were unavailable in the future, to participate in their community kitchen. Willingness to both come back and pay extra suggests acceptability of the CK for community kitchen members. According to Engler-Stringer and Berenbaum (2007) and others, stigmatization of low-income participants in the CK did not occur (Tarasuk & Reynolds, 1999).

### **Challenges and Future Research**

Findings from this study are based in a unique, localized context and corroborated with other CK studies in unique contexts, globally. The intention of this study is to begin meaningful discussions about community kitchen impacts on hunger in vulnerable U.S. communities. The

knowledge gained from this study contributes to understanding of community effectiveness in addressing issues of hunger in their local contexts. The knowledge gained from this study also provides decision-making information to governmental and non-governmental bodies on impacts of a community-driven approach to hunger. Community kitchens and other community driven organizations serve as incubators for local, state, national, and international hunger solutions. Future research should continue to identify and describe the effectiveness of community-driven solutions to hunger in the United States. They solutions overcome translational research barriers (Miller & Shinn, 2005).

Limitations of this study include the positioning of the researcher as an ‘outsider’ to the group in relation to experiences and demographic background and an ‘insider’ into community kitchens in the area. Active listening, reflective practice, incorporation of community members in all phases of the project, and member checking were measures taken to reduce bias. The asymmetrical power relations of the researcher and study participant were thoughtfully considered through reflections made at the end of any CK project component involvement by both the researcher and the CK leader. These reflections contributed to an increased awareness of misperceptions and enabled the research and CK leader to design specific questions and activities for community members that helped to inform, clarify and/or improve the researcher and CK leader understands of findings and project activities over time.

Study strengths include: immersion in the setting, extensive data collection, and triangulation between data collection methods (Lincoln & Guba, 1985). The researcher’s experience in the setting prior to this study facilitated entry into the field and assisted in building trust between the CK leader and the researcher.

## Conclusion

Community kitchen member descriptions of changes in the dimensions of hunger (quantity, quality, psychological, and social) as a result of participation in the community kitchen suggest that CKs have an impact on several dimensions of hunger that occur at the community, household and individual levels. These findings both support and offer additional insights into what is known about community kitchen impacts to date in other countries. CK member descriptions expanded current definitions of quantitative, qualitative, social and psychological dimensions of hunger as described. In this study, changes were reported in community hunger, specifically, food anxiety over: 1) the availability of safe and quality retail food stores, 2) the quality of food assistance organizations, 3) the safety of food processing techniques, and 4) the quality of integrated food-health services. Changes in household hunger, specifically anxiety around 1) availability of household equipment, money and time for food preparation and consumptions, 2) quality of household food in regards to taste, variety and health, and 3) acceptability of food obtainment and preparation practices, were also described by CK members. Individual hunger was characterized by CK members as consuming inadequate amounts and/or inadequate amounts of nutritionally-rich foods. It was also described as lack of choice or quality food deprivation, and lack of love, respect, stimulation, and meaning experienced during food acquisition. Changes occurred in individual hunger as described by CK members through participation in the CK over time. Potential facilitators and barriers of hunger outcomes in this community kitchen project have been explored and are reported in a related study (Mayer, 2013).

In summary, community kitchen participation had an impact on all dimensions of hunger described by Radimer, Olson and Campbell (1990) including: quantity, quality, psychological and social dimensions. Impacts in these dimensions were described by community kitchen

participants, contributing significantly to the CK literature on hunger outcomes of CKs in the United States. In addition, impacts were described by participants as occurring on multiple ecological levels of each hunger dimension. It is well known that individual hunger occurs within the context of household and community hunger (Radimer, Olson & Campbell, 1990) and CKs make an important and unique contribution to addressing the dimensions of hunger within an ecological framework. The potential of community kitchens in reaching additional groups in the United States vulnerable to hunger will rest on their ability to gain outside support and recognition of the important work they continue to do.

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## Appendix A: Observational guides

Example of one of seven direct observation program activity logs:

WIC CK Session Activities

**Name:**

**Date:**

**Time Recorded:**

**Time and Length of Activity:**

**Place:**

**Who was present?**

**Purposes:**

- To understand social and cultural phenomena from the perspective of participants.
- To help us describe and understand the value of the CK model for low-income families and how the model might be improved.

Name of Activity:	Food Production	
Framing Question (s)-What we are looking at today:	Direct Observations/Descriptive Notes (Concrete data) Record <b>what you observe</b> and <b>what you hear</b> .	Interpretations (Where record <b>generalizations, cultural meanings, interpretations, and insights.</b> )
What is the purpose of the activity?		
<b>Goal (s)</b> (the things you and the participants are trying to accomplish with this activity)		
Who carried it out (leader(s))?		
Who did it involve?		
When did it occur?		
How long did it take?		
Where did it occur? <b>Setting:</b> <ol style="list-style-type: none"> <li>a. Your location on a map</li> <li>b. Brief description of where you were situated in the setting</li> <li>c. Visual Elements</li> </ol>		

d. Atmosphere		
What was/were the role(s) of participants?		
What is the activity?  *Please attach activity content documentation if available.		
What are people doing while conducting the activity?		
What are people talking about during the activity?		
Describe the interactions observed between people while performing the activity.		
<b>Feelings</b> (the emotions felt and expressed by participants) <b>during the activity.</b>		
Additional questions		
Recipes Made?		
How Chosen?		
Describe Food Made/Cooked (I.e. recipes: ingredients, cook times, boil times...etc.)		
Reflections		
Describe Your Reactions to the Setting/activity		
Reactivity (How did people respond to you)?		
How did it go?		

Is this activity acceptable, feasible, and sustainable?  How so?		
Is there anything you would change for the next CK session?  How would you change it?		
Thoughts?		
Aim: to become a part of what you are observing.		
Write about your experiences during this activity.  Write about any conversations you had trying to include both verbatim quotes and reflections.		

Example of one of seventeen program logs:

Participation Flow Sheet		Name:	Date:			
Who is participating?	What are they doing?	When are they doing it?	Where are they doing it?	How are they doing it? (Active or passive involvement?)	Why are they doing it?	

Reflections	
How did it go?	
Is participation acceptable, feasible and/or sustainable? How so?	
Is there anything you would change? How would you change it?	

## Appendix B: Focus group tools

### QUESTIONS

#### Pre Focus Group 1:

1. Please tell us your name and one of your favorite meals you like to make at home.
2. Please draw a picture or write a description of what comes to mind when you hear “community kitchen” using the paper and markers in front of you. You don’t have to be an artist; stick figures are just fine.
  - Let’s go around and share your pictures or descriptions of what comes to your mind when you hear “community kitchen.” Who would like to start?
  - Follow-up: What questions do these pictures bring up?
3. You accepted our invitation to participate in a community kitchen. Think back to when you decided to come to a community kitchen. What influenced your decision?
4. What do you hope to get out of participating in your community kitchen?
5. What would you like to do or learn in your community kitchen?
6. There are a lot of questions we didn’t ask. Please tell us anything else you would like us to know before your community kitchen begins.

#### Post-Focus Group 1:

1. Please tell us about a recipe you made in your community kitchen.
2. What was it like to be a part of your community kitchen? Please draw a picture or write a description that describes your community kitchen experience using the paper and markers in front of you. You don’t have to be an artist; stick figures are just fine.
  - Let’s go around and share your pictures or descriptions that describe your community kitchen experience. Who would like to start?
  - Follow-up: What questions do these pictures bring up?
3. Think back to when you first joined our community kitchen program. Was your experience what you thought it would be?
4. Has your community kitchen been beneficial to you and your family?
5. Do you have the tools at home to make the recipes learned in your community kitchen?  
Follow up: Did you make these recipes again at home?
6. Is there a best part of participating in your community kitchen?
7. Is there a worst part of participating in your community kitchen?  
Follow-up: How could your community kitchen be improved?
8. There are a lot of questions we didn’t ask. Please tell us anything else about your community kitchen you would like us to know.

### Appendix C: Questionnaire tools

#### Pre-Session Questionnaire 1:

Please rank the top 3 things you hope to get out of participating in a community kitchen. Place a "1" next to your top/first choice, "2" next to your second choice, and "3" next to your third choice.

- \_\_\_\_\_ Save money on food
- \_\_\_\_\_ Take food home to eat
- \_\_\_\_\_ Try new and different foods
- \_\_\_\_\_ Make new friends or social connections
- \_\_\_\_\_ Learn cooking/baking skills
- \_\_\_\_\_ Learn how to plan and prepare a meal
- \_\_\_\_\_ Learn more about nutrition
- \_\_\_\_\_ Learn more about food safety
- \_\_\_\_\_ Learn how to best use the new WIC package

Please tell us a little about your current health practices. Check the box that is **most** applicable to you.

	Never True	Sometimes True	Often True
I feel confident with my cooking skills.			
I plan the meals I want to cook before shopping for food.			
My family and I eat at least one meal per day from a fast food restaurant, convenient store or cafeteria.			
I eat grains, vegetables, fruits, dairy products and meats/beans daily.			
I eat at least 5 servings of fruits and vegetables each day.			
I usually need more food than I have.			
I prepare or cook food with others.			
I usually eat food with others.			



Please tell us a little bit about yourself by checking a box or filling in a blank space below.

1. Please indicate Gender:       Female                       Male

2. What is your Age? \_\_\_\_\_ years

3. What is your Zip code? \_\_\_\_\_

4. Do you receive WIC benefits?       Yes                       No

5. What is your Marital Status?

- Never married
- Married/ living together
- Separated/divorced
- Widowed

6. How many people are currently living in your household? \_\_\_\_\_

7. How many children less than 18 years of age are currently living in your household?  
\_\_\_\_\_

8. How much do you typically spend on groceries (including cash and food stamps) in a week for your household?

- Less than \$50
- \$50 or more but less than \$100
- \$100 or more but less than \$150
- \$150 or more

9. Which one or more of the following would you say is your race or ethnicity?

- Hispanic or Latino
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- American Indian or Alaska Native
- White or Caucasian
- More than one ethnic group/multi-racial
- Other [specify] \_\_\_\_\_

10. Were you born in the United States?                       Yes                       No

If No, What is your country of origin? \_\_\_\_\_

How many years have you lived in the United States? \_\_\_\_\_



Post-session Questionnaire:

Please rank the top 3 things that you got out of participating in a community kitchen. Place a "1" next to your top/first choice, "2" next to your second choice, and "3" next to your third choice.

- \_\_\_\_\_ Save money on food
- \_\_\_\_\_ Take food home to eat
- \_\_\_\_\_ Try new and different foods
- \_\_\_\_\_ Make new friends or social connections
- \_\_\_\_\_ Learn cooking/baking skills
- \_\_\_\_\_ Learn how to plan and prepare a meal
- \_\_\_\_\_ Learn more about nutrition
- \_\_\_\_\_ Learn more about food safety
- \_\_\_\_\_ Learn how to best use the new WIC package

Please tell us a little about your current health practices. Check the box that is **most** applicable to you.

	Never True	Sometimes True	Often True
I feel confident with my cooking skills.			
I plan the meals I want to cook before shopping for food.			
My family and I eat at least one meal per day from a fast food restaurant, convenient store or cafeteria.			
I eat grains, vegetables, fruits, dairy products and meats/beans daily.			
I eat at least 5 servings of fruits and vegetables each day.			
I usually need more food than I have.			
I prepare or cook food with others.			
I usually eat food with others.			

Please tell us about your **overall** community kitchen experience by filling in the blank spaces below.

1. If you had the opportunity, would you continue to participate in your community kitchen?

\_\_\_\_\_

2. If funding were unavailable in the future, how much would you pay to participate in your community kitchen? \$ \_\_\_\_\_ per community kitchen.



## **Appendix D: Community member consent form**

### **UNIVERSITY OF WASHINGTON CONSENT FORM**

#### **Community Kitchen Pilot Program Evaluation**

##### **Investigators' statement**

We are asking you to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask questions about the purpose of the research, what we would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When we have answered all your questions, you can decide if you want to be in the study or not. This process is called "informed consent." We will give you a copy of this form for your records.

##### **PURPOSE OF THE STUDY**

During your participation in the Community Kitchen Pilot Program we would like to explore what you are getting out of being a part of your community kitchen. Also, we would like to explore how we can make your community kitchen experience a better experience for you and others who will come here after you by obtaining your feedback and observing what is going on in and around your community kitchen. This information will help us understand the value of the Community Kitchen Pilot Program.

##### **STUDY PROCEDURES**

We are asking you to be in a study about the Community Kitchen Pilot Program. If you choose to participate we will ask you to (1) fill out two short questionnaires and (2) take part in two group discussions. We will also be taking some notes about what happens during the sessions.

**Questionnaires:** There are two questionnaires, one before the program and one after. They will each take about 10 minutes. The questionnaires ask about topics like whether or not you plan for meals, whether or not you have enough food, and how much you spend on groceries every week.

**Discussion Groups:** There will be two discussion groups, one before the program and one after. The discussions will last no more than 90 minutes. We will take notes and audio-record the discussions. We will ask you about topics like why you came to the community kitchen, what you would like to learn here, and what it was like to participate in the program.

**Observation Notes:** We will take some notes during the program so that we can record the sorts of activities we do and how well they work. We will not record any names in our notes.

You can still be in the program even if you do NOT want to fill out the questionnaires or take part in the group discussions.

## **RISKS, STRESS, OR DISCOMFORT**

Some people feel that providing information for research project is an invasion of privacy. You do not have to participate if you do not want to. Some people feel self-conscious when they are audio recorded. We have addressed concerns for your privacy in the following section of this consent form.

## **BENEFITS OF THE STUDY**

We hope that the results of this study will provide the public with new knowledge about community kitchens. You will probably learn some new things about personal health practices and community kitchens from the program, but you may not directly benefit from the research.

## **OTHER INFORMATION**

Your participation in the study is voluntary. You can stay in the program and quit the study without any negative consequences.

Data from this study are confidential. We will keep the audio-recordings for 5 years. We will keep your name linked to the data for 5 years. After that we will erase the recording and break the link between your name and the data. If we report results of this study, we will NOT use your name.

We will give you a \$10 Safeway gift card for the time you spend in the group discussions.

### **Subject's statement**

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later about the research, I can ask one of the researchers listed above. If I have questions about my rights as a research subject, I can call the Human Subjects Division at (206) 543-0098. I will receive a copy of this consent form.

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Printed name of subject

Signature of subject

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Printed name of study staff obtaining consent

Signature

Date

Copies to:  
Researcher  
Subject