

BARRIERS AND FACILITATORS TO FOOD SECURITY AMONG REFUGEES

ASSESSING THE BARRIERS AND FACILITATORS TO FOOD SECURITY THAT
INFLUENCE DIETARY CHANGES AMONG REFUGEES

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ABSTRACT

Objective: Refugees experience food challenges upon resettling in their host country.

However, there is currently limited Canadian literature that reviews food security among refugees who resettle in Canada. This thesis will assess the barriers and facilitators to food security that influence the dietary changes of refugees who resettle in Hamilton, Ontario, from the perspective of the service providers as well as the refugees.

Methods: A qualitative method was applied. Nine individual semi-structured interviews were carried out with service providers in Hamilton. Twelve refugees participated in one of three focus group interviews conducted in the languages of Arabic, Somali, or Spanish. Interviews were transcribed. The data was coded using a qualitative analysis software, NVivo 10. A social ecological model was used to analyse how facilitators and barriers at various levels of influence affect food security among refugees. Levels of influence included: intrapersonal, interpersonal, organizational, community, and public policy.

Findings: While several diet-related health concerns were mentioned by refugees, it is difficult to attribute these to diet-related causes since the psychological stress of resettlement was also cited as a causal factor of refugees. While both service providers and refugees agree upon certain facilitators and barriers to food security among refugees at each level of influence in the social ecological model, there were also differences between the two perspectives identified. Different issues were also identified between refugee claimants and government assisted refugees (GARs) who came from refugee camps.

Conclusion: The complex relationship between various factors identified at different levels of the social ecological model demonstrate a need for a collaborative, multi-level

intervention approach to optimize changes required to improve food security among refugees living in Hamilton.

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LIST OF ABBREVIATIONS

7-DHC	7-dehydrocholesterol
CFG	Canada's Food Guide
CHCs	Community Health Centres
CIHR	Canadian Institutes of Health Research
GARs	Government-assisted refugees
GMO	Genetically Modified Organisms
IRB	Immigration and Refugee Board of Canada
LCRs	Landed-in-Canada refugees
NGO	Non-governmental organization
PSRs	Privately sponsored refugees
RAP	Resettlement Assistance Program
UNHCR	United Nations High Commissioner for Refugees

CHAPTER 1: INTRODUCTION

Although most studies categorize refugees as immigrants, the health status of refugees differs from that of family class immigrants¹ and economic class immigrants² upon arrival in their host country (Newbold, 2009). In contrast to other classes of immigrants, refugees are particularly vulnerable as they have been forcibly displaced due to war, violence, and persecution for reasons like “race, religion, nationality, or membership in a particular social group or political opinion” (Hadley, Patil, & Nahayo, 2010, p. 391). As a result, when refugees arrive in Canada, their physical and mental health condition is often poorer than that of immigrants (Alberta Health Services, 2009). Refugees experience the worst cases of protein-energy malnutrition and micronutrient deficiencies (Agriculture and Consumer Protection Department, 1992). Malnourished individuals often experience illnesses that are more recurrent, prolonged, and severe, which makes it even more challenging to retain a sufficient nutritional status during chronic or recurrent acute infections (Agriculture and Consumer Protection Department, 1992).

In order to provide services that allow refugees to access culturally appropriate and nutritious foods, it is imperative to develop a comprehensive understanding of the underlying needs of distinct newcomer populations during the resettlement process as well as among the refugee population. While there are differences between immigrants

¹ A family class immigrant refers to an individual who is sponsored by a family member who is either a Canadian citizen or permanent resident (Policy Horizons Canada, 2013).

² An economic class immigrant is an individual who is able to come to Canada because they are able to contribute to Canada’s economy due to the skill(s) and/or other asset(s) that he/she possess(es) (Policy Horizons Canada, 2013).

and refugees, the variation among individuals who have been identified as a refugee by the Government of Canada – government-assisted refugees (GARs), privately sponsored refugees (PSRs), and landed-in-Canada refugees (LCRs) or self-identified as a refugee such as a refugee claimant – can contribute to circumstances that may either facilitate or impede their access to food that influences their diet during the resettlement process. In this thesis, the term refugee will be applied to encompass any individual who is either identified by the Government of Canada as a refugee or has self-identified as a refugee. A distinction will be made among GARs, PSRs, LCRs, and refugee claimants at any time where possible and when relevant. By assessing the facilitators and barriers to food security that influence the dietary changes of refugees, interventions that address the specific needs of particular groups may be established to ameliorate the challenges of dietary adaptation.

Study Objectives

This study aims to address the following objectives to develop a stronger comprehension of the facilitators and barriers to food security that influence dietary change among refugees when they first arrive in Hamilton, Ontario:

- To explore diet-related health concerns among refugees who resettle in Hamilton, Ontario
- To understand how facilitators and barriers contribute to food security or insecurity among refugees

- To describe and compare the perspectives of both service providers and refugees to achieve a more complete understanding of how various factors influence food security among refugees

While refugees can suffer from dire health consequences related to food, a recent study showed that only 1.5% of published health research related to refugees in Canada is focused on nutrition (Patil, Maripuu, Hadley, & Sellen, 2012). This thesis provides an opportunity to evaluate the facilitators and barriers to food security and insecurity that affect the diets of refugees in Hamilton, Ontario. This study will use the information collected and analysed for *Changing Homes, Changing Food*, a planning project funded by the Canadian Institutes of Health Research (CIHR) that focuses on dietary change among the immigrant population in Hamilton. While *Changing Homes, Changing Food* examines food and diet-related issues among all classes of immigrants and refugees, this thesis focuses solely on refugees. By assessing the facilitators and barriers to food security from the perspective of both service providers and refugees using a social ecological model, more effective and applicable interventions can be implemented at the appropriate levels of influence to meet the needs of different types of refugees.

Study Setting

The study is set in Hamilton, which is situated in Southern Ontario. In 2012, with a census metropolitan area population of approximately 750,800, the city received 257,887 permanent immigrants and 13,564 temporary residents (Government of Canada, 2013a). Hamilton has the seventh highest immigrant population in Canada, making up 2.5% of the immigrants in the country (Statistics Canada, 2011). In 2012, 62.4% of

immigrants from the economic class, 25.2% of immigrants from the family class, and 12.4% of individuals who are considered protected persons and other immigrants made up Hamilton's permanent immigrant population (Government of Canada, 2013a).

Refugees make up approximately one third of the newcomer population in Hamilton (Newbold, Eyles, Birch, & Wilson, 2008; Wayland, 2010). Every year, there are about 440 GARs and 1,000 refugee claimants who come to Hamilton (Davy, 2010). In 2010, the top three source countries for refugees who are recognized as permanent residents in Hamilton are Iraq, Colombia, and Republic of Somalia (Citizenship and Immigration Canada, 2010). Hamilton is one of the six cities (Toronto, London, Ottawa, Kitchener, and Windsor) in Ontario that receives GARs (Wayland, 2010). Hamilton serves as an attractive resettlement location due to its close proximity to Toronto and its lower cost of living compared to that of Toronto (Newbold et al., 2008).

Newly arrived immigrants including refugees but excluding temporary residents generally settle in neighbourhoods in downtown core, McMaster University and one census tract in East Hamilton/Stoney Creek (Wayland, 2010). Aside from these geographical areas, there are also immigrants who are concentrated in neighbourhoods outside of the core downtown area and Hamilton Mountain (Wayland, 2010).

Refugee Services in Hamilton

There are a number of organizations in Hamilton that provide services to immigrants and refugees. In this section, an overview of some of the services that include refugee clients is provided.

There are community health centres (CHCs) that serve the wider population of Hamilton, but given their geographical locations in Hamilton, their clientele includes a significant portion of immigrants and refugees. CHCs are non-profit organizations governed by a community-elected volunteer board of directors (Queen's Printer for Ontario, 2013; Woolwich Community Health Centre, n.d.). CHC primary care teams consist of a range of interdisciplinary health care professionals who work together to deliver a range of primary health care services to clients within their catchment areas (Queen's Printer for Ontario, 2013; Woolwich Community Health Centre, n.d.). With additional funding sources, some CHCs are able to extend their programs and services to include “legal services, housing, employment, literacy, food security, prenatal nutrition and child development” (Woolwich Community Health Centre, n.d.). Most of their programs and services are targeted towards priority populations who have challenges to health care access (Woolwich Community Health Centre, n.d.). This includes newly arrived immigrants and refugees as well. There is also a multi-ethnic charitable organization that supports immigrant and refugee women and their families resettle in Hamilton by offering services that are related to skills development and settlement support (Immigrant Women’s Centre, n.d.). Moreover, there is also a service provider organization that provide initial resettlement support and services to GARs through the Resettlement Assistance Program (RAP) (Government of Canada, 2007). Furthermore, there is an organization in Hamilton that offers safe shelter and settlement support to refugees.

Overview of Chapters

This thesis is divided into seven chapters, including the introduction. The second chapter will review published literature on food security among refugees, focusing mainly on the Canadian literature but also some from the United States when relevant. The third chapter will provide a description of the design of the study and the methodology applied. The fourth chapter will assess the findings from interviews conducted with service providers, which will include findings on diet-related health concerns, dietary changes, and facilitators and barriers to food security that influence dietary changes among refugees in Hamilton. Chapter five will also examine the diet-related health concerns, dietary changes, as well as the facilitators and barriers to food security that have affected the changes in the diet of refugees in Hamilton but from the perspective of self-identified refugees. Finally, the sixth chapter will then discuss the findings presented in the fourth and fifth chapter, acknowledge the limitations, provide future direction, and conclude the thesis.

CHAPTER 2: OVERVIEW OF REFUGEES AND FOOD SECURITY

This chapter begins by introducing immigrants and refugees in the Canadian setting, followed by a description of the immigration and refugee system in Canada, which explains the different categories of immigrants and refugees. Next, the chapter will discuss refugees' food security situation prior to their migration, followed by a description of the health changes that they may experience with migration. Finally, the chapter provides an overview of the literature that relates to how various factors influence the five key components of food security among refugees.

Refugees and Immigrants in Canada

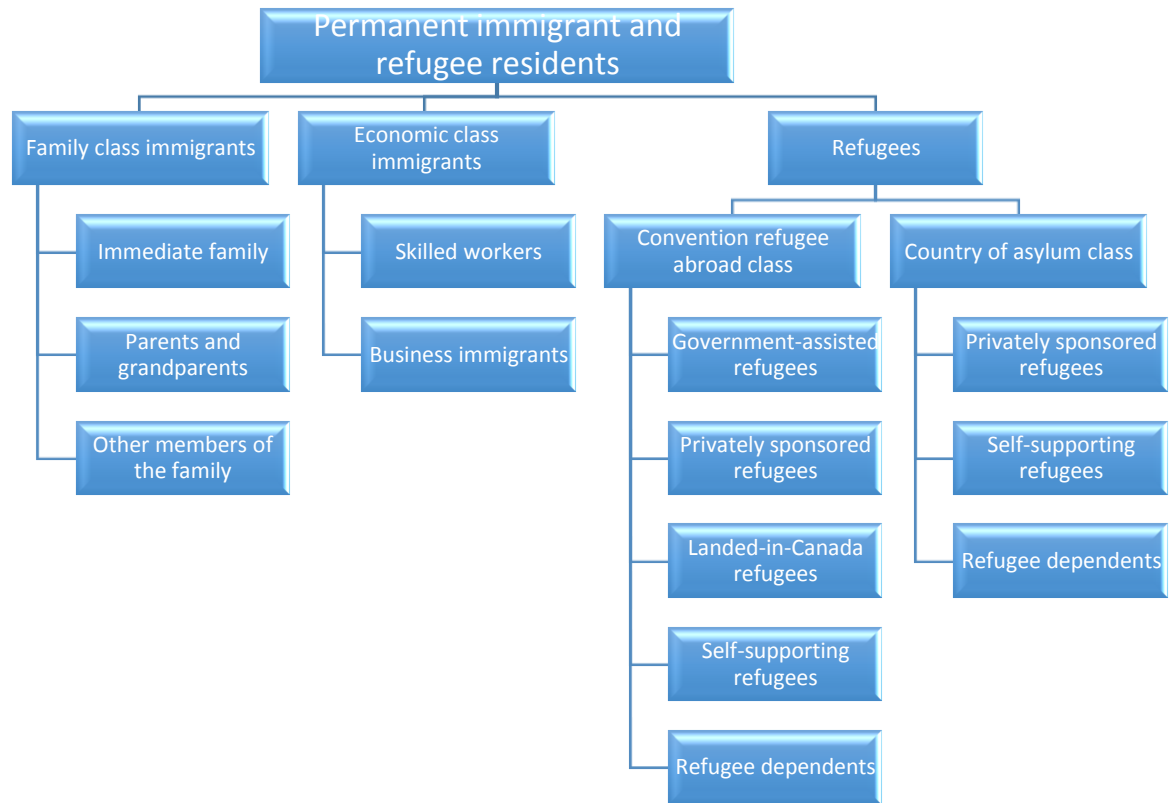
With a low fertility and an aging population, migration became the main source of population growth in the mid-1990s, and it is projected that around 2030, it will be Canada population's only growth factor (Statistics Canada, 2008). On average, approximately 250,000 immigrants enter Canada each year, with refugees constituting approximately 10% of the inflow of newcomers to Canada over the past decade (Immigration, Watch Canada, 2010; Yu, Ouellet, & Warmington, 2007). In 2013, for refugees who are considered permanent residents, there are 5,781 GARs, 6,392 PSRs, 8,094 LCRs and 3,701 refugee dependents (Government of Canada, 2014a). One of the goals of the Immigration and Refugee Protection Act (IRPA) is "to promote the successful integration of permanent residents [which includes immigrants and refugees] into Canada while recognizing that integration involves mutual obligations for new immigrants and Canadian society" (Yu et al., 2007, p. 17). Before entering the country, both immigrants and refugees, except for refugee claimants, have to successfully pass a medical screening (Beiser, 2005). While immigrants and refugees share some common

resettlement challenges, it is important to recognize that they do have different needs as well. Unlike immigrants such as business applicants and skilled workers who are assessed on their economic potential, and family class applicants who are evaluated based on their economic and social support in Canada, the primary selection admission criterion for refugees is on the basis of whether they need protection by Canada (Yu et al., 2007). The Canadian Council for Refugees recognizes a refugee as an individual who is “forced to flee from persecution and who is located outside of their home country” (Canadian Council for Refugees, 2010). Moreover, unlike immigrants who voluntarily choose to migrate to Canada, refugees (by definition) are forced to leave their home because of traumatic experiences, which may lead to the need for not only standard integration services but more specialized support services such as counselling and mental health support (Yu et al., 2007; Giles, Moussa, & Esterik, 1996; Newbold et al., 2008). Refugees are recognized to have greater health needs (McKeary & Newbold, 2010).

Canada’s Immigration and Refugee System

There are three main categories of foreign-born permanent residents in Canada: family class immigrants, economic immigrants, and refugees. **Figure 2.1** illustrates the different categories of immigrants and refugees in Canada.

Figure 2.1 Main categories of immigrants and refugees who are considered permanent residents in Canada



Source: Data obtained from Citizenship and Immigration Canada (2014a)

Family class immigrants are sponsored by an immediate family member or relative who resides in Canada and is either a Canadian citizen or a permanent resident who is at least 19 years of age (Policy Horizons Canada, 2013; Wayland, 2010). The sponsor must be willing and able to provide financial support to meet the standard settlement needs of the applicant and their accompanying dependents for ten years (Policy Horizons Canada, 2013).

Economic immigrants, on the other hand, are selected on the basis of their occupational skills, entrepreneurship, or other important assets that will contribute to the Canadian economy (Policy Horizons Canada, 2013).

In 1951, the United Nations High Commissioner for Refugees (UNHCR) referred to refugees as people who have fled their home country, not by choice, but as a result of fear for persecution for reasons such as “race, religion, nationality, or membership in a particular social group or political opinion” (Hadley et al., 2010, p. 391). Refugees may be sponsored to Canada either by the federal government, a private sponsorship group, or self-sponsored. Citizenship and Immigration Canada stopped accepting applications for the source country class on November 5, 2011; thus resettled refugees from abroad can belong to either one of the two classes: convention refugee abroad class, or country of asylum class (Ontario Council of Agencies Serving Immigrants, 2014; Policy Horizons Canada, 2013; Wayland, 2010).

Convention Refugee Abroad Class

The Convention refugee abroad class are refugees who are either referred by the UNHCR or another referral organization or sponsored by a private sponsorship group and these refugees cannot return to their home country because they may be persecuted on the basis of their race, religion, political opinion, nationality, or membership in a certain social group (Citizenship and Immigration Canada, 2014a). Since GARs are neither privately sponsored nor do they have the funds to support themselves, they receive resettlement assistance from the federal government (Citizenship and Immigration Canada, 2014b).

Country of Asylum Class

The country of asylum class is comprised of refugees who leave their home country or the country they habitually reside in due to a civil war, an armed conflict or a violation of human rights (Citizenship and Immigration Canada, 2014a). These

individuals have been selected as persons who require protection at a visa office abroad (Wayland, 2010). They must also be referred either by the UNHCR or another organization otherwise they require the sponsorship of a private sponsorship group (Citizenship and Immigration Canada, 2014a). The IRB will hear and accept their claims only after they have arrived to Canada (Wayland, 2010).

Refugee Claimants (also known as Asylum Seekers)

Besides resettling from outside of Canada, there are LCRs who initially came to Canada as a refugee claimant requesting refugee protection status. At point of entry, officers decide if their claim will be referred to the Immigration and Refugee Board of Canada (IRB) (Yu et al., 2007). The IRB will decide if the person is a convention refugee or person in need of protection (Government of Canada, 2012). A refugee claimant is typically excluded from most federally funded integration services (Yu et al., 2007). They are temporary residents who seek asylum upon or after arriving in Canada (Government of Canada, 2013b). Once a refugee claimant is granted protected person status and becomes a permanent resident, he/she is known as a LCR (Yu et al., 2007).

Refugees' Food Situation Prior to Migration

While adequate and appropriate nutrition is essential to the health of all, there are challenges that malnutrition and/or micronutrient deficiencies impose upon the health of refugees. The worst cases of protein-energy malnutrition and micronutrient deficiencies are amongst displaced populations, including refugees (Agriculture and Consumer Protection Department, 1992). Refugees become displaced for different reasons. Most refugees selected to resettle in Canada by the Government of Canada are usually victims of torture or trauma escaping their home country due to life-threatening situations and

some have lived in refugee camps for many years (Citizenship and Immigration Canada, 2014b). Refugees have a greater prevalence of nutritional deficiencies prior to migrating to the United States (Walker, Stauffer, & Barnett, 2014). Although malnourishment is common among refugees, it is especially common among refugees who come from war-stricken environments or refugee camps (Kemp & Rasbridge, 2006).

Although the right to food is protected in refugee camps, droughts and conflict may prompt food shortages and famine (Giles et al., 1996). Moreover, the logistical challenges of delivering foods on time can be affected by circumstances (Rulashe, 2014). Further, inappropriate foods, limited variety (rations), or limited access (including on the part of the host country – food as a ‘weapon’) challenges the assumption of sufficient and culturally appropriate food (Giles et al., 1996). For example, since February 2014, there are approximately 126,000 Sudanese refugees who have been affected by the shortage of food in remote Maban as refugees had to survive on a seven-day ration, ten-day ration, and a twenty-day ration in March, April, and May, respectively (Rulashe, 2014).

Micronutrient deficiencies are also common among refugees living in camps. Scurvy remains an issue in refugee camps in sub-Saharan Africa with limited consumption of foods containing Vitamin C, since it is a challenge to deliver fresh vegetables and fruits to these remote areas (Giles et al., 1996; Keen, 1992). A lack of vitamin A can lead to xerophthalmia (also known as dry eye syndrome), respiratory and diarrhoeal infections and other complications if measles is contracted (The Nemours Foundation, 2014; Keen, 1992).

The limited essential micronutrients in rations have also contributed to an increase of disease outbreaks among refugees (Keen, 1992). Parasitic and chronic infectious diseases such as malaria, *Ascaris* infections, schistosomiasis, amoebiasis and hookworm have the greatest impact on the nutritional status of refugees (Caruana et al., 2006; Barnett, 2004; Giles et al., 1996; Benzeguir, Capraru, Aust-Kettis, & Björkman, 1999; Agriculture and Consumer Protection Department, 1992).

While much of the literature discusses the food challenges that refugees experience when living in refugee camps, refugees flee their country to seek protection under different circumstances, whereby some may not necessarily have lived in camps. In addition, although they may encounter potential challenges related to food as they are in transit of migrating to a safer country, most of the literature focuses on food access challenges in camps.

Health Changes with Migration

There is a substantial amount of evidence that demonstrates a direct link between food security and physical and mental health (Vahabi, Damba, Rocha, & Montoya, 2011). Many experts approximate that 30% to 35% of refugees experience torture (Quiroga & Berthold, 2004). Many of the refugees that the Canadian government resettles are victims of torture or trauma (Citizenship and Immigration Canada, 2014b).

Aside from bringing issues from their traumatic past, refugees are also faced with new challenges upon resettlement, which can lead to or exacerbate mental health issues (Quiroga & Berthold, 2004). Not only do refugees come with health issues before migration but especially when they are first resettled (Long, 2010). As a result, this does

not only result in a dual burden but a higher prevalence of food insecurity as well (Australian Institute of Family Studies, 2007; Hadley & Sellen, 2006). Upon resettling in a more developed setting, refugees encounter food insecurity and other health-related problems particularly in their first year but over time, the prevalence of food insecurity decreases (Hadley, Zodhiates, & Sellen, 2007; Hadley & Sellen, 2006).

When refugees migrate to the United States, they may come with chronic conditions that are not treated in their home country like vitamin deficiencies, diabetes, or hypertension (Walker et al., 2014). Refugees find certain diet-related health concerns to be more prevalent in North America than in their home country. For example, a Liberian refugee woman, interviewed by Patil, McGown, Nahayo, and Hadley (2010) commented that chronic diseases like diabetes are more prevalent in the Liberian refugee community in the United States. Similarly, she observed that breast cancer is more common among Liberian refugees in the United States than in Liberia. A respondent indicated that while this is the case, there are no regular check-ups being performed so even if someone dies from cancer, it will not be known that it is specifically due to breast cancer. Likewise, an older male Ethiopian refugee and community leader also recognized that due to dietary changes, the East African refugee community encounters more chronic diseases such as diabetes, cancer, and cardiovascular disease (Patil et al., 2010).

As mentioned above, it is not unusual to experience food shortages in refugee camps (Patil, Hadley, & Nahayo, 2009; Giles et al., 1996). As a result, the sporadic profusion of food items may also potentially lead to binge or disordered eating upon resettlement, which may ultimately result in weight gain (Patil et al., 2010; Patil et al.,

2009). Most refugees acknowledge that they gain weight upon arrival. Fatty foods are only consumed during special occasions in Africa, whereas in the United States, East African refugees may consume high status foods like meat more frequently than they did at home because being fat is perceived to be a sign of wealth (Patil et al., 2010; Patil et al., 2009). On the other hand, parents are concerned about the health changes like weight gain among their children as a result of poor eating habits, which consist of a diet of high fat, sugar, salt and calories. In one instance, Patil et al. (2010) mentioned that a Liberian refugee woman would monitor her calorie intake as well as that of her family because she was concerned about the weight gain due to the food habits that her household had adopted since coming to the United States. Aside from gaining weight, the foods that East African refugees choose to consume in the United States had also led to high blood pressure as well as death, as a result of coronary heart disease (Patil et al., 2009).

Food Security

In the State of Food Insecurity 2001, the definition given to food security was “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Food and Agriculture Organization of the United Nations, 2003, p. 28). As a result, from the definition of food security, without access to food, this can be interpreted as a violation of human rights (Vahabi et al., 2011; Hadley et al., 2007). As refugees travel to new regions, they are generally going to lose direct access to food and trade entitlements (Giles et al., 1996). As a result, food

insecurity may be a barrier to successful resettlement, which adds to health inequities as refugees are more vulnerable to food insecurity.

Key Components of Food Security

From the Food and Agriculture Organization's definition of food security, the Centre for Studies in Food Security at Ryerson University uses an approach that takes five main of food security into consideration: availability, accessibility, acceptability, adequacy, and agency (Ryerson University, 2014). There are various factors that affect each of these areas of food security, which can improve or worsen the level of food security among refugees. Due to the limited literature available on food security among refugees in Canada, most of the literature that assesses how different factors influence each of the key areas of food security comes from literature that pertains to the United States.

Availability

Availability refers to an adequate amount of food for everyone at all times (Ryerson University, 2014). A study conducted by Kiptinness and Dharod (2011) reveals that when refugees compare the United States to the camps that they came from, over half of the participants stated that there were more food and food options available upon resettling in the United States. Many refugees are generally able to find the food they need in regular grocery stores, small ethnic stores, international markets and flea markets (Kiptinness & Dharod, 2011; Patil et al., 2010). Although preferred foods seem to be widely available, there are certain food items like dried fish and fufu (flour from Africa) that are not found in chain stores (Patil et al., 2010). Moreover, the knowledge that refugee women may have of edible and usable plants in a particular environment may not

be as appropriate in a new ecological setting (Giles et al., 1996). As a result, they may not be able to grow their own food upon resettling in a new environment, even though many may want to grow their own food if they were able to conveniently access a garden (Willis and Nkwocha 2006).

Accessibility

Accessibility involves economic as well as physical access that allows everyone to meet their food needs at all times (Food Secure, 2014; Ryerson University, 2014). Since refugees are often poorer than the general population, poverty will have a complex impact on their health and diet (Patil et al., 2009). Households without sufficient income are more likely to experience food insecurity compared to more affluent homes (Hadley et al., 2010; Hadley et al., 2007). Hadley et al. (2010) found that nearly 70% of participants who earned less than \$500 per month (in the United States) are highly food insecure in contrast to 37% of participants who have a minimal income of \$2,000 per month. As a result, interventions that can quickly improve the prospects of the labour force may help reduce food insecurity among recently arrived refugees (Hadley & Sellen, 2006). Several other North American studies reveal that after rent and utility payments, study participants had difficulty managing their limited funds towards basic needs like foods, which force people to make difficult compromises (Kiptinness & Dharod, 2011; Yu et al., 2007; Hadley et al., 2007). There are times of the year, moreover, when refugees are more likely to experience food insecurity. As Patil et al. (2009) point out, refugees are stressed about the high costs of heating, and thus they may be less able to afford nutritious food at certain times of the year when the seasonal bill expenditures are high. Many refugees, moreover, send money to their family in their home country or are responsible for

providing for family members who have recently arrived, so they do not only modify their behaviours but that of their children as well (Hadley et al., 2007). For instance, when there are food shortages, newly arrived refugees from Burundi would decide who to feed first and sometimes no one is able to eat unless there is free food acquired from places other sources such as schools (Patil et al., 2010).

Economic constraints may change the diets of newcomers to reflect their economic circumstances since they do not have the economic means to afford their preferred foods (Patil et al., 2009). Near the end of the month, refugees may purchase and prepare foods that may not be consumed normally in their country of origin, due to their limited income that precludes them from purchasing their preferred foods (Hadley et al., 2007; Hadley & Sellen, 2006). A study by Giles et al. (1996) showed that while imported foods are now available in North America, these imported foods are considerably more expensive than local foods. As a result, refugees adjust their diets to new alternatives. A limited budget also contributes to a higher likelihood of consuming food and beverages that are high in fat, calories and refined sugars, since they are considered to be more affordable than fresh produce like fruits, vegetables, meats, and fish, which leads to an energy-dense diet and weight gain (Vahabi et al., 2011; Patil et al., 2009; Hadley & Sellen, 2006). Under low income and food circumstances, refugees adopt a lower quality diet with substitution of fresh foods with more monotonous meals, and potentially a greater number of meals that consists of bread and water so that they can feel full (Patil et al., 2010).

As a result of a limited income and a high sense of responsibility upon arrival, refugees may take up relatively low-paying jobs with little scheduling flexibility (Kiptinness & Dharod, 2011; Patil et al., 2010; Patil et al., 2009). Many refugees who work long hours in low paying jobs or do shift work, which may reduce the time available to prepare certain foods and the type of food consumed (Patil et al., 2009). As a result, the same study reported that many individuals would shop and prepare for a week's worth of food on the day that they had off, since some traditional dishes require over two hours of preparation. There were times, however, when women found that they did not have enough time to prepare certain meals so they would purchase fast foods (Patil et al., 2009).

From the physical access perspective, there is growing literature that emphasizes the important role that the built environment has on health both directly and indirectly (Patil et al., 2009). One study by Patil et al. (2009) reported that most refugees in mid-sized cities are able to find their preferred foods, with only about 12% of refugees unable to procure their preferred foods in the United States. Most refugees find that after familiarizing themselves with their new food environment, they are able to locate their preferred food items (Patil et al., 2010). Kiptinness and Dharod (2011) found that there are only a few food items like camel milk and baobab fruits that refugees are unable to find in urban settings. Unfortunately, sometimes it is hard to locate the specialty stores that stock their preferred items. There are specialty stores as well as grocery stores that are widely dispersed and ethnic food stores that are not typically found on major bus

routes by public transportation, which makes it hard for refugees to reach their food destinations (Patil et al., 2010).

Those who find it hard to locate the stores that they enjoy are more likely to experience higher food insecurity (Hadley et al., 2010). The quality and accessibility of transportation systems moreover, can either improve or limit access to foods (Patil et al., 2009). Upon arrival, many refugee families do not own a car so they either walk to the store or rely on the public transportation system or their friends and relatives to obtain foods (Kiptinness & Dharod, 2011; Patil et al., 2010). However, when refugees walk or take the bus to the grocery store, the amount of food that they are able to purchase is limited not just by the amount they can spend but also by the amount they can carry home (Patil et al., 2010). There are also other concerns that refugees raise in regards to the public transportation system from the wait times, the limited services available, the amount of time needed to reach their destination, to their personal safety (Patil et al., 2010; Patil et al., 2009). As a result, refugees often try to coordinate their shopping trip with their neighbours or friends so that they are able to make larger purchases without the need to wait for the bus or make as many shopping trips as before (Patil et al., 2010). However, due to the limited number of shopping trips they make, they may need to make purchases at convenience stores that are closer to home, work, or bus stops, which may not necessarily be good since convenience stores generally price their products higher than larger chain stores and they often have less healthy food options (Patil et al., 2009). As a result, one of the main objectives for many families is to purchase a car not only for personal safety, but also so that they can benefit from improved physical access to meet

their shopping needs, which enables them to not only shop in different areas but to shop at various locations that offer the best price for different food items in a limited time frame (Patil et al., 2010).

Knowledge can influence both physical and economic access to food for everyone at all times. The limited knowledge that newly arrived refugees have in regards to the location of different regular food stores can impact food security (Kiptinness & Dharod, 2011). Hadley et al. (2010) showed that if a respondent shopped at a particular location because of a lack of awareness of other stores, then they were 2.5 more likely to experience high food insecurity. In addition, those who were aware of fewer food locations were unable to compare the prices of as many grocery stores, which could contribute to higher food bills, and eventually a higher probability for food insecurity (Hadley et al., 2010). While it is important to be knowledgeable about the location of regular grocery stores and specialty stores, emergency food services may also be necessary. A study conducted by Willis and Nkwocha (2006) showed that about one-third of Sundanese refugee participants were not aware of where they could access free or emergency foods if needed.

Besides knowing where to access affordable food, the nutritional knowledge that refugees possess can also influence their consumption of a nutritionally balanced diet (Willis & Nkwocha, 2006). However, offering nutrition education can be a difficult task due to language barriers. One study illustrated that linguistic diversity can impose a significant amount of pressure on the interpreters who try to coordinate nutrition education as well as frustration for individuals with stronger English language and

literacy skills (Wieland et al., 2012). The participants interviewed suggested the use of food props and visual models to help those with language barriers visualize the food item being referred to, as well as appropriate portion sizes for consumption (Wieland et al., 2012).

Language barriers can exacerbate food security among newcomers (Kiptinness & Dharod, 2011; Patil et al., 2010; Hadley et al., 2010). Refugees who are unable to read English experience considerably greater food-related problems (Hadley et al., 2010). For instance, those with limited language and literacy skills may experience greater challenges in accessing the food they need. Refugees with limited English language and literacy knowledge find various challenges associated with shopping at a regular grocery store from trying to decipher the product labels to identify or differentiate food items to asking staff members at the grocery store for assistance (Kiptinness & Dharod, 2011; Hadley et al., 2010; Patil et al., 2009; Hadley & Sellen, 2006). Besides trying to locate food in the supermarket, some individuals have trouble finding products even in specialty stores, given that they did not know the “local” English name of the foods (Patil et al., 2010). In addition, although refugees may be able to access the recipes and directions to prepare certain dishes, their language and literacy skills may limit their opportunities to prepare various meals (Patil et al., 2010; Patil et al., 2009). For instance, although a Liberian woman who lived in the United States for about two years was able to converse in English, she was unable to comprehend the meaning of the words that she read on the recipe card to prepare the food that she wanted to make thus the limited knowledge of recipes can lead to a high spending on food (Patil et al., 2010).

While language and literacy skills are important, media literacy can also affect what one may choose to access. Most of the commercials viewed during television programs for children predominantly promote low nutritional value foods (Brown & Witherspoon, 2002). Unfortunately, research in the United States demonstrates that there is a correlation between the commercials that the children remember and what they consume (Hadley et al., 2010). As a result, since there are more nutrient-poor foods being promoted during the television programs children watch, they are more likely to remember these foods, and consequently consume them. While the media can influence children, they can influence the food accessed by the other members of the household too.

Women usually prepare and shop for the foods in the household (Giles et al., 1996). However, children play an important role in structuring the dietary, shopping, and caretaking practices of the household (Patil et al., 2010). Children are able to quickly learn the language in a new country especially once they are enrolled in daycare or school (Hadley et al., 2010; Patil et al., 2010). Aside from learning a new language, children may also develop a preference for American foods due to the interaction or pressure from their peers. As a result, the cultural dissonance may introduce tension at home, which makes the caretaker's task of purchasing and cooking for the household more challenging (Patil et al., 2009). When a child becomes more proficient in English, potentially exceeding the skills of their caretakers, their caretakers may rely and trust the child more, which can give the child more purchasing power (Hadley et al., 2010). For instance, when refugees go shopping, in either small groups or as a family, there is little discussion and no disagreement on what to purchase. However, when there are children who accompany the

family during the shopping trip, children request items such as cookies, juices, and other sweet items, which the family rarely decline to purchase (Patil et al., 2010). One mother mentioned that she would purchase foods like chips and noodles because of her children (Patil et al., 2009). The contrasting dietary preferences can lead to financial stress (Hadley et al., 2010; Patil et al., 2010).

Children do not only influence their caretakers' purchasing decisions but the food they consume as well (Patil et al., 2009). A survey reveals that caretakers who have greater difficulty with the English language have a greater likelihood for eating snacks and drinking sodas while being less likely to consume fruits, which may be because children are acting as drivers of their diets (Patil et al., 2009). On the other hand, children also play a positive role in dietary practices within a family. Many women indicated that they would try to prepare their meals in the healthiest manner for their children, and there are parents who cited using deception to incorporate healthier foods into their children's diets (Wieland et al., 2012; Patil et al., 2010; Patil et al., 2009). Moreover, adults with limited knowledge of nutrition tend to turn to others for guidance (Hadley et al., 2010). For example, one study revealed that Asian immigrant women would attempt to make some modifications to their meals from the new knowledge that they gained about healthy eating based on the nutritional information that their children brought home from school (Patil et al., 2009).

In spite of the fact that older refugees prefer consuming foods from their home country and adhering to the dietary restrictions of their religious practices, refugee parents cited that they prepared food that their children enjoyed even though it was different from

their preferences, to ensure that their children are full and satisfied (Patil et al., 2010; Patil et al., 2009). While a study showed that Liberian caretakers preferred their children to eat food from home, they were more worried that they were unable to provide the foods that their children enjoyed most (Patil et al., 2009). However, this is not to say that children do not enjoy traditional food, as there are cases of children skipping lunch, since they did not like the foods offered at their school and only ate when they got home (Patil et al., 2010).

Aside from members within the household influencing the food being accessed, the social integration and cohesion from informal networks can also impact the changes to a person's diet as well as their access to foods. Upon their arrival, some refugees experience social isolation, since they do not know anyone in their new host country (Kiptinness & Dharod, 2011). Individuals who arrived earlier had to learn to navigate a new environment without a support network (Patil et al., 2010). Refugees who arrive earlier provide newly arrived refugee families with social and integration support to help them meet their food needs (Kiptinness & Dharod, 2011; Patil et al., 2010). By having a social support network, families who are experiencing hunger as a result of socioeconomic factors have more options in addressing this issue such as borrowing money or food, or visiting a friend's home for a meal (Patil et al., 2009). Aside from tangible resources, informal support networks can also improve the food and nutrition knowledge of refugees. However, there are differences in terms of the social support provided by different refugee communities (Patil et al., 2010). The Meskhetian Turk community demonstrates a more cohesive relationship, as meals are prepared and local information is provided to newly arrived Turks immediately upon their arrival (Patil et

al., 2010; Patil et al., 2009). Likewise, Southeast Asian refugees from the Lao community believe in the fundamental methods of building a community, which includes the sharing of food through communal meals that enables them to determine who can be trustworthy, who is a true friend, and who shares the Buddhist standards of morality (Giles et al., 1996). However, the Liberian refugee community is said to be less socially cohesive, which may be attributed to the lack of trust caused by the civil war in their home country (Patil et al., 2010; Patil et al., 2009).

Adequacy

Another component of food security is adequacy, which entails safe and nutritious foods that are produced using environmentally sustainable approaches (Ryerson University, 2014). A study by Hadley and Sellen (2006) noted that one of the emerging themes from their study includes the concerns that recently resettled Liberian refugees and asylum seekers raised in regards to the chemicals found in foods that were frequently consumed in the United States. Moreover, Patil et al. (2010) note that refugees in their study attributed certain health concerns such as diabetes due to the consumption of canned foods. In addition, dietary acculturation and economic circumstances can also contribute to the consumption of less adequate food by substituting nutrient-dense traditional foods for foods that are low-cost yet calorie-dense (Kiptinness & Dharod, 2011). When Patil et al. (2010) requested to see the foods in the home of a Bhutanese family, they found a large package of hot dogs in the refrigerator, vanilla ice cream in the freezer, and boxes of cereals. While the reason for the presence of these foods was not specified, the foods found in their home were not the most nutritious foods.

Acceptability

Acceptability is another element of food security, which entails ensuring that culturally acceptable food is produced and obtained in ways that do not jeopardize people's dignity, self-respect or human rights, and that there is enough food available to meet the needs of diverse diets (Ryerson University, 2014; Toronto Food Policy Council, n.d.). For instance, a study of Bhutanese refugees found that upon resettlement they preferred and continued to mostly follow their traditional dietary habits by preparing foods like curries and dhal, and they rarely ate American foods like pizza, pasta or burgers (Kiptinness & Dharod, 2011; Patil et al., 2010). A reason for most refugees favouring traditional foods instead of American foods may be due to their desire to maintain a traditional diet, which plays an important role in cultural identity in affirming the strength of their relationship with their culture and traditions (Kiptinness & Dharod, 2011; Hadley & Sellen, 2006). However, there are a few refugees who expressed that the taste of the foods is different from their home country (Patil et al., 2010; Patil et al., 2009). Nonetheless, a study conducted by Hadley and Sellen (2006) reported that Liberian refugee women mention that the consumption of traditional foods fosters a feeling of being close to their home country. The focus group participants of a study carried out by Wieland et al. (2012) suggest that the nutrition education component of a health intervention aimed at immigrants and refugees in the study should encourage change in the nutritional value of traditional food rather than attempting to reduce the consumption of traditional foods.

On the other hand, there are refugees such as the Sundanese refugees who display an interest in learning about American dishes as well as other food alternatives to their

traditional dishes (Kiptinness & Dharod, 2011). The Liberian caretakers are not only becoming more accustomed to some of the newly introduced foods, but they also perceive American foods to be good (Patil et al., 2009). They did not feel that the inclusion of American foods in their diet is a threat to their cultural identity (Patil et al., 2009). Although there are refugees who claim to enjoy American foods, they seldom prepare American foods (Patil et al., 2010). Many refugees are excited about the prospect of learning American dishes for various motives, ranging from reasons related to pride or to demonstrate that they are more American through their cooking skills (Patil et al., 2009). While refugees are open to consuming American foods, they lack the knowledge to purchase, prepare, and cook non-traditional dishes (Kiptinness & Dharod, 2011; Hadley et al., 2010; Patil et al., 2009). For many refugees who often shop in open air markets where they would have to barter with merchants to negotiate the best price for a good, food-related practices in their host country such as weekly shopping, fixed pricing and labeling is a novel concept for many of them (Kiptinness & Dharod, 2011; Patil et al., 2010). Without compromising their level of food security, refugees can adapt better shopping practices by comparing the prices of different stores prior to making any purchases, buying alternative foods that are lower priced, and purchasing only the foods that they eat (Hadley et al., 2010; Hadley et al., 2007). Aside from being exposed to different shopping practices, refugees are also unfamiliar with the different types of frozen foods, thus they did not know how to incorporate these items into their diets (Hadley et al., 2010).

While there is support to help refugees improve food security, the form of social support may not be the most culturally appropriate at times. Based on certain ethno-cultural beliefs, there are some Southeast Asian refugees who will not consume any high status foods such as meats when invited for a meal at another person's home given the limited food supply that the host may have (Patil et al., 2009). On the other hand, African refugees prepare the same foods for their guests that they are eating irrespective of who their guest is, their need, or their food supply (Patil et al., 2009). Therefore, it is important to also recognize the culturally appropriate forms of social support required to address food security (Patil et al., 2009).

Agency

The final component of food security definition, agency, refers to the policies and processes that aim to promote food security (Ryerson University, 2014). The federal government of Canada funds integration services for newcomers who are permanent residents of Canada, protected persons as indicated by the Section 95 of the IRPA, and those who are initially approved for permanent residence (Yu et al., 2007). Through the RAP, the Government of Canada provides services by funding service provider organizations and financial assistance to GARs (Immigrant Services Society of British Columbia, 2010; Government of Canada, 2014b). The financial support is used to assist them with initial resettlement costs such as the cost of accommodation, basic household items, orientation, and other living expenses for up to a year or until he/she is self-sufficient (Government of Canada, 2014b). While resettled refugees are able to access integration services, refugee claimants without permanent or temporary resident status are not eligible for many federal settlement services. There are a few locally funded

organizations in certain provinces and big metropolitan areas that do offer some services to refugee claimants (Yu et al., 2007).

Moreover, case workers in the American context, have low-paying positions that do not require any formal training; many resettlement agencies hire case workers who have the language skills to help newcomers integrate into the community (Patil et al., 2010). Volunteers and/or caseworkers of resettlement agencies accompany refugees on their grocery trips to help them locate a store, identify unfamiliar products, suggest budgeting strategies and/or compare prices and brands (Patil et al., 2010; Hadley et al., 2010). The interactions between a caseworker and a newly arrived refugee can affect the household decisions regarding foods, dietary choices, and health (Patil et al., 2010). Each caseworker has their own notions of what is considered best for their refugee clients. However, irrespective of the training and knowledge that the caseworker has, refugee clients generally depend on their caseworkers for their expertise on “American life” (Patil et al., 2010). As a result, the perceived values of caseworkers can influence the food decisions of newly arrived refugees (Patil et al., 2010).

In conclusion, the published literature demonstrates that food security is a complex issue that is influenced by a diverse range of factors. There is limited research that focuses upon the factors that influences refugees’ level of food security in the Canadian context. As a result, this thesis will contribute to the current literature by beginning to address the study gaps, strengthening the understanding of how factors will influence the level of food security among refugees in Hamilton, Ontario, which in turn

will affect their diets. The next chapter will discuss the methodology used to address the objectives of this study.

CHAPTER 3: METHODS

Chapter 3 describes the methodology used in the design of this study. The chapter begins by presenting the social ecological model, which is the framework that will be used to illustrate how the findings in each level of influence affect food security among refugees. The methods used to recruit and collect data for this study from the semi-structured interviews, focus group interviews and the socio-demographic questionnaires will be discussed, followed by a description of how the data was analyzed to produce the findings in the subsequent two chapters.

Social Ecological Model

Like most public health problems, it is difficult to address the diverse challenges of food security from a single level of analysis; the social ecological model provides a comprehensive way to analyse different levels of influence that affect health behaviours, and eventually health outcomes (Robinson, 2008). The social ecological model used for this study is adapted from the model that McLeroy, Bibeau Steckler and Glanz (1988) created to examine the individual and social environmental factors to develop health promotion programs. The different levels of influence in a social ecological model are: intrapersonal, interpersonal, organizational, community, and public policy (Winch, 2012; Robinson, 2008; McLeroy et al., 1988). Please see **Figure 3.1** for a depiction of the social ecological model that indicates how the factors within the different levels of the model affect refugees' food security.

Figure 3.1 Socio-ecological model demonstrating factors that influence food security among refugees



Source: Adapted from McLeroy, Bibeau Steckler and Glanz (1988)

The intrapersonal level refers to individual characteristics that affect personal behaviours, including knowledge, skills, self-concept, developmental history, attitudes, beliefs, and personality traits (Winch, 2012; Robinson, 2008; American College Health Association, n.d.). The interpersonal level applies to interpersonal processes and groups; it encompasses family, friends, and peers that offer social identity, support, and role definition (Winch, 2012; Robinson, 2008; American College Health Association, n.d.). The organizational level involves rules, regulations, policies, and structures that either aid or constrict behaviours (Winch, 2012; Robinson, 2008). The community level takes into

account the social networks as well as the community norms or standards that exist (Winch, 2012; Robinson, 2008; American College Health Association, n.d.). Finally, the public policy level pertains to the local, state, and federal policies and laws that either govern or support healthy behaviours (Winch, 2012; Robinson, 2008; American College Health Association, n.d.). A social ecological approach was selected to guide the analysis of the data to better understand how to address a complex and dynamic issue like food insecurity among refugees by looking at multiple levels of influence and their interactions among one another. Winch (2012) acknowledges that it is unclear where certain factors such as “culture, social class, racism, gender, economics/employment” (Winch, 2012) would be most appropriate on the ecological model that McLeroy et al. (1988) developed. These factors cannot be classified necessarily under one specific level of influence as these factors can be interwoven and connected with every level of influence in the social ecological model. As a result, these factors may be mentioned in more than one level of influence as they apply to this study.

Data Collection

The purpose of quantitative research is to test and evaluate research questions to enumerate answers (Giacomini & Cook, 2008; Pope & Mays, 1995). On the other hand, the objective of qualitative research methods is to explore, describe, and cultivate an understanding of the social and interpreted phenomena (Giacomini & Cook, 2008; Pope & Mays, 1995). While quantitative research produces deductive inferences by creating causal or correlational inferences to populations, qualitative research generates inductive inferences to theories regarding social experiences or surroundings (Giacomini & Cook,

2008). Moreover, quantitative research uses close-ended questions to obtain numerical data whereas qualitative research employs open-ended questions that provide the participants an opportunity to provide meaningful and culturally elaborate, in-depth and complex textual information that may not have been expected by the researcher (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). Both research methods address essentially different questions (Giacomini & Cook, 2008). Qualitative research methods are the most appropriate approaches to achieve the objective of this thesis, which requires a descriptive interpretation to comprehend how facilitators and barriers influence food security among refugees, a social phenomenon that needs to be explored by empowering people to share their stories using open-ended questions and probing (Creswell, 2013; Mack et al., 2005).

The thesis uses different qualitative research methods to obtain a more complete and accurate representation of the data for interpretive analysis. This includes semi-structured individual interviews and focus group interviews. Although semi-structured interviews utilize a set of questions during the interview process to provide some structure to explore certain key themes, semi-structured interviews are open for participants to bring up new ideas or discuss a certain relevant area in greater depth (Gill, Stewart, Treasure, & Chadwick, 2008). While individual interviews are beneficial in stimulating recall of personal experiences and perspectives, group interviews can help seize social dynamics, language, and culture (Giacomini & Cook, 2008). While focus group interviews can empower participants to speak when there are others around, however, it can also prevent others from disclosing information openly (Giacomini &

Cook, 2008). By collecting data from semi-structured interviews with service providers as well as focus group interviews with refugees, there are more diverse perspectives, and each perspective will have its own biases. The information and perspectives of the service providers are different from those of the refugees. Based on the capacity at which service providers interact with refugees, their perspective on food security among refugees will not only be different from another service provider's but from refugees as well. In contrast, refugees are able to provide personal accounts of the food (in)security experiences that they have encountered that service providers may not necessarily be able to do unless they have been a refugee themselves, and even then, there will be differences in their resettlement experience. The use of qualitative methodology helps to develop an in-depth understanding of how certain factors affect the food security of refugees from multiple perspectives.

Recruitment of Participants

The data collected and analysed for this thesis is from *Changing Homes*, *Changing Food*, a larger study that received ethics clearance from McMaster Research Ethics Board. *Changing Homes*, *Changing Food* explores the determinants of dietary changes among immigrants and refugees who have resettled in Hamilton, Ontario. I was a Research Assistant for *Changing Homes*, *Changing Food*. As a Research Assistant, I had the opportunity to participate in eleven of the twenty-two interviews with service providers. From the twenty-two interviews, there were nine interviews that were used for this thesis (one interview conducted over Skype and eight interviews carried out in person). I was present for five of the nine interviews. From the four focus group

interviews conducted for the larger study, three of them had refugee participants. I participated in two of the three interviews with refugees. There were times where I would ask the questions on the interview guide with service providers and there were some interviews where I would take notes during an interview with a service provider or refugees.

Changing Homes, Changing Food used maximum variation sampling and snowball sampling to select service providers for semi-structured interviews. Maximum variation sampling is a purposeful way of sampling for heterogeneity by selecting a small sample that represents a variety of participants in diverse settings and at different times to maximize the diversity in a sample (Cohen & Crabtree, 2006). Snowball sampling is another purposive sampling method whereby an initial participant provides the researcher with other potential contacts who could possibly participate or contribute to the study (Mack et al., 2005; Atkinson & Flint, 2004). Service providers who were able to provide insight about newcomers' food security and their dietary changes based on their different experiences were selected. The sample was quite diverse in that it consists of individuals who worked at different types of organizations, fulfilling different roles as well as having a different client base but still consists of refugees. Please see **Table 4.1**. After a few semi-structured interviews were conducted with service providers, the snowball sampling took place, where a few service providers started recommending other service providers who would be able to provide information relevant to the study.

Likewise, snowball sampling was used for the focus group interviews with immigrants and refugees. The participants for the four focus groups were recruited based

on the recommendations made by service providers who indicated that they would most likely have interest from approximately five to eight immigrants at their organizations. In addition, the service providers noted that there would be a translator and agreed to put up recruitment posters at their organizations. Based on this, three organizations were selected to host a focus group. Since it would be a challenge to have multiple translators at each focus group interviews, three language groups (Arabic, Somali and Spanish), which represent the major language spoken in each of the top three source countries for refugees settling in Hamilton, were selected for this study. The participants of each focus group shared a mutual understanding of at least one language (Arabic, Somali, or Spanish). An additional focus group was conducted in English. Additional inclusion criteria for the participants were that they must be at least 18 years of age and is or was an immigrant or refugee. There were no restrictions in terms of when they arrived in Canada.

For the purposes of this thesis, a smaller subset of participants' data was analysed. This thesis applied purposive sampling, a non-probability sampling technique, to selectively derive information from interviews with nine service providers who provided information about refugees only. Similarly, only twelve participants from three focus groups who stated that they arrived in Canada as a refugee claimant or refugee were included. The English language focus group was excluded from this thesis as it did not have any participants in it who were either a refugee claimant or a refugee when they first arrived in Canada.

Individual Interviews with Service Providers

The individual interviews with service providers were conducted with an interview guide that lists a number of questions to provide some direction on what to

discuss while also providing the interviewer and the participants with the flexibility for the discovery of novel ideas or certain ideas in greater depth (Gill et al., 2008). The questions from the interview guide were developed based on the literature review conducted on the dietary changes among immigrants for *Changing Homes, Changing Food*. Some of the questions in the interview guide included the following: What are the major areas of concern for immigrants/refugees in terms of getting food and eating nutritious and satisfying food? Do you think immigrants' diets change for the better or worse when they come to Canada? Do immigrants voice concerns about food insecurity? Do you have a sense of whether immigrants are using emergency food services or other food/nutrition services provided by the City of Hamilton? Can you think of any programs or services for immigrants related to diet/nutrition that are not offered that should be? Please see appendix 1 for the full interview guide.

Between September 2013 and December 2013, twenty-two interviews were conducted with service providers in Hamilton. Every semi-structured interview was digitally recorded and transcribed from the digital audio file. In addition, notes were taken. From a total of twenty-two interviews that were conducted, nine interviews were used in this thesis. The nine semi-structured interviews were chosen on the basis of the relevancy of the service providers' responses to the research questions about refugees. For the interviews with service providers that were used for this thesis, I transcribed six interviews (one Skype interview and five in-person interviews).

Focus Group Interviews with Refugees

Focus groups apply group dynamics to produce qualitative information on collective outlooks as well as the meanings behind those perceptions (Gillet al., 2008).

Focus group interviews are also recognized to produce a better understanding of the experiences and beliefs of participants in the focus group (Gill et al., 2008). From February 2014 to May 2014, three focus group interviews were conducted with immigrants and refugees in Hamilton. Based on the data collected from the semi-structured interviews with service providers, questions were developed for newcomers around the areas that have been identified as requiring rich and in-depth perspectives of newcomers to achieve a more accurate and complete representation of the determinants that affect dietary changes. The focus group interviews were carried out using an interview guide, along with probes as well.

Each focus group interview was held at a different organization that serves newcomers, including refugees. There were six Arab-speaking women who were part of the first focus group interview. Among the six participants, there were two GARs and one privately sponsored refugee (PSR). While much of the interview was done in English, a translator, who was also a participant in the focus group, helped address any language barriers among participants. The second focus group interview was conducted with six Somali GARs, one male and five females. A Somali translator provided translation services for the entire duration of the focus group interview. Finally, the third focus group interview was conducted with seven Spanish-speaking women. Out of the seven participants, three of the participants had come to Canada as refugee claimants. This interview was also entirely conducted in Spanish with the help of a translator. Based on their refugee status when they first arrived to Canada, twelve refugees were included in this study.

The newcomers who participated in the focus group interviews completed a socio-demographic questionnaire prior to participating in the focus group interview. Please see appendix 2 for the socio-demographic questionnaire. Personal information was collected from each focus group participant, which included information regarding age, employment status, level of education, household's annual income, immigrant status, postal code in Hamilton, if they were married or in a common-law relationship, children (number of children and age of their children), country they were born in, and year they arrived in Canada.

Some of the questions found in the interview guide included: Who in your family is responsible for getting food and cooking? Do you have difficulty buying the kinds of food you want to buy? How do you budget for food? What do newcomers think of food bank food? How do you feel about the quality of food in Canada? Are you able to eat the way you want to in Canada? What does eating together with others at festivals or community events mean to you? What types of things did you need to learn when you first came to Canada in order to prepare and get food for your family? What are the major health concerns for newcomers related to diet and nutrition? Do you or have you in the past ever used any nutrition/diet-related services? What could the government do for you to help you eat healthier? Has that changed over time since you've been in Canada? Please see appendix 3 for the full discussion guide. These questions were intended to provide an understanding of the different factors that can affect food security at different levels of influence of the social ecological model and how the factors and levels of influence interact to impact food security among refugees in Hamilton, Ontario. For

instance, questions such as ‘How do you budget for food?’ and ‘Who in your family is responsible for getting food and cooking?’ would provide an idea of how budgeting knowledge at the intrapersonal level and interpersonal level, respectively, can affect food security among refugees. On the other hand, based on the social ecological model, questions like ‘What do newcomers think of food bank food?’ and ‘What could the government do for you to help you eat healthier?’ can help assess how the support of community organizations at the organizational level and the government at the public policy level, respectively, can influence food security among refugees. For the focus group interviews that had at least one refugee participants, I transcribed two of the three focus group interviews.

Data Analysis

As mentioned earlier, there were data from semi-structured interviews that were conducted with service providers who deliver services to newcomers in general, which include immigrants and refugees. As a result, for any data where the service provider did not mention that the information exclusively pertained to refugees, the data was not coded. In addition, only the data that were collected from those who self-identified as a refugee in the focus group interviews were coded. Any information that was collected from a non-refugee immigrant was excluded.

The content of the transcripts from the individual and focus group interviews that were carried out with service providers and refugees, respectively, for this thesis were coded separately by me, using NVivo 10 (QSR International Pty Ltd., 2014). NVivo 10 is a qualitative analysis software program that was used to assist with the coding and

analyses of the information acquired from semi-structured and focus group interviews. I performed coding simultaneously while creating themes for the analysis of this thesis. Each theme was considered a node. By coding the data, themes were identified and grouped into a range of categories that were related to one another. If there were any themes that were similar to one another, a hierarchy was developed whereby if a theme was more specific than another theme, then it went under the broader theme and was classified as a sub-theme, also known as a child node. As a result, the themes were both inductively and deductively derived.

In conclusion, a qualitative research design was used in this thesis to explore emergent themes concerning food insecurity among refugees in Hamilton at different levels of influence in the social ecological model. The next chapter will discuss the findings using the social ecological model from the perspective of the service providers, while the subsequent chapter will describe the findings using the same social ecological model but from the refugee participants' perspectives.

CHAPTER 4: SERVICE PROVIDERS' PERSPECTIVES

This chapter begins with a general overview of the service providers and the services they offer, followed by a description of the diet-related health concerns that service providers identify that refugees may have had prior to or after their arrival to Canada. Next, the chapter discusses the service providers' opinions about the dietary changes that refugees have experienced upon resettling in Hamilton, as well as factors that influence refugees' ability to obtain and eat healthy food. These findings are presented using a framework of the social ecological model to demonstrate how facilitators and barriers at different levels of influence can affect food security among refugees.

Profile of the Sample

From September to December 2013, nine semi-structured interviews were conducted with service providers who work with refugees in some capacity in Hamilton. There were a range of service providers who were interviewed. Please see **Table 4.1**.

Table 4.1 Service providers who participated in the semi-structured interviews

Type of organization	Role of the service providers interviewed	Clients
Community health centres (CHCs)	<ul style="list-style-type: none"> • Client Advocate/Counsellor • Peer Support Worker • Community Health Programs Manager 	General population, which includes refugees
Community service agency	<ul style="list-style-type: none"> • Director of Family Services 	
Immigrant centre for women	<ul style="list-style-type: none"> • Settlement Services Manager 	Immigrants, which includes refugees
Service provider organization that offers the Resettlement Assistance Program (RAP)	<ul style="list-style-type: none"> • Manager • Case Manager 	Government-assisted refugees (GARs)
Health professional in Hamilton	<ul style="list-style-type: none"> • A medical doctor 	
Shelter/Support centre for refugees	<ul style="list-style-type: none"> • Executive Director 	Refugee claimants

Diet-Related Health Concerns

A number of service providers recognized that changes among the diets of refugees who resettle in Hamilton can lead to certain health concerns. Although some health concerns are already present prior to their arrival, certain changes in their diet may exacerbate their condition. For instance, four of the service providers indicated that mental health concerns such as post-traumatic stress disorders are commonly seen among the refugee population. One of the service providers who work with newcomers explained how post-traumatic stress disorders among GARs can be linked to their ability to access food:

I think that the mental health [that] we kind of experience every day, when it comes to the newcomer population, [it] comes from a variety of different things, right. Number one could be the government-assisted refugees. When they come,

they either witnessed or were victimized in refugee camps. They faced torture, rape, you name it. And some of the kids witnessed parents being victimized and so on. So it's something you don't just forget. So people come with all this luggage, which in the long term affects their ability to adjust and function in a new country. So we have a couple of programs and then the one-on-one support programs to help people with that. When it comes to food and how it connects to mental health, we work, as a CHC, with a broader definition of health. We work from all of the determinants of health perspective. Right, so we believe that if I keep worrying about trying to put food on the table for my kids tomorrow, it's going to affect my health. Not only mental health, right? It's going to affect the whole thing. If I worry about, am I doing the right thing in my apartment or is the landlord going to come back tomorrow and tell me that I have to be out of the place the next day?

Mental health issues and stress can affect an individual's eating habits as well. An individual who provides services to newcomers found that stress contributes to weight changes, especially among refugee claimants who are struggling with various issues, which will influence their individual eating patterns, including eating less appropriate food:

I will say immigrants and refugees face very similar problems. I will say [...] if they are refugee claimants, they are struggling with a lot of other issues. It's, "how do I get status in Canada?" So they are subjected to more stress. So depending on the individual, that person will tend to eat more or less. [...] I will see a woman who arrived last year very slim, and one year after, this woman has gained 20-40 pounds. [...] It is the stress because I think it is more emotional eating than anything else and what people are going to eat more is the things that are easily acquired because they are less expensive. And the less expensive things, we know that they are not good for us. There is a lot of consumption and I would say in Latin America, it is because it is so cheap there, like pop. And you know it is an uphill battle trying to convince these people. You know, it is very unhealthy for you because people tend to consume a lot and people got use to that from back home.

However, stress is not the only contributor to weight change. A number of other diet-related diseases were cited as problematic. For instance, a respondent responsible for services for GARs noted that thyroid issues contribute to both weight gain and weight

loss, but some GARs were not aware of thyroid problems until they arrived to Canada.

Another service provider representative who works with GARs also pointed out that diabetes was prevalent among older GARs, but it was not until they were diagnosed with diabetes that they were aware of it. Thus, they may already have had diabetes prior to coming to Hamilton.

There are also particular groups in Hamilton who were more at risk for certain health concerns than others. For instance, a medical doctor pointed out that Somalis were at greater risk for vitamin D deficiency since they are usually covered with concealing clothing and have darker skin³.

There are also health concerns that are more prevalent among children. A medical doctor noted that the presence of parasites was prevalent among refugee children; this caused some children to develop minor sickness or difficulty consuming food. However, they may not be aware of the parasites until they have an overall check-up in Canada. Upon their check-up, healthcare professionals will be able to identify the parasites in the child and the child will be able to receive the appropriate treatment. Several service providers also identified malnutrition to be a health issue, especially among children. A medical doctor stated that there were a considerable number of children who were admitted to the hospital for severe malnutrition such as rickets (due to vitamin D deficiency), or other vitamin or mineral deficiencies. She also noticed that when refugees

³ Although vitamin D can be obtained from food, it is insufficient (Hatun et al., 2005). For most individuals, the main source of vitamin D is exposure to the sun (Drake & Bikle, 2011). When the skin is exposed to ultraviolet-B radiation from the sun, vitamin D₃ is produced (Drake & Bikle, 2011). As a result, concealing exposed skin with clothing from the sun is one of the risk factors that contribute to an inadequate vitamin D production in the skin (Benson & Skull, 2007; Hatun et al., 2005). In addition, individuals with darker skin pigmentation are at greater risk for vitamin D deficiency because both melanin and 7-dehydrocholesterol (7-DHC) will compete against one another for UV light absorption (Drake & Bikle, 2011).

first arrived, a majority of the group were either malnourished, growth stunted or both. Likewise, another respondent noted a link between malnutrition and growth stunting, particularly among children who came from refugee camps. She provided the example of a 15-year-old GAR who recently arrived to Canada from a refugee camp in Kenya; the child had a smaller stature and body frame compared to an average 15-year-old Canadian. A medical doctor also indicated that those who were malnourished were more vulnerable to obesity once they adopted the Canadian diet. She also saw that some refugees developed constipation for the first time in their lives once they resettled in Hamilton due to the low-fibre Canadian diet.

In summary, while mental health issues and stress were concerns for refugees prior to resettling in Hamilton, mental health stress was further aggravated upon resettling in Hamilton, sometimes leading to poor eating habits and thus weight changes. At times, the stress of household food insecurity can exacerbate mental health issues experienced by refugees. Diet-related health concerns like thyroid problems, diabetes, and parasites were identified as issues that refugees may have had in their home country, but it was not until they arrived in Canada that they were aware that they had these health conditions. However, it is difficult to know for sure, as these types of conditions often go undiagnosed in refugees' home countries. Vitamin D deficiency, malnutrition and growth stunting were other diet-related health concerns among refugees, particularly youth. Furthermore, there were conditions such as constipation that were new upon arrival.

Dietary Changes

Upon resettling in Hamilton, service providers mostly perceived the diets of refugees to worsen rather than improve, though there were some cases where service providers felt that the diets of refugees improved. One of the study participants believed that this was true for most of the GARs who came from refugee camps because they received minimal amounts of nutritious foods in the camps, whereas in Hamilton they received a food allowance that enabled them to purchase a variety of food to achieve a better diet overall, albeit it may not be the case for everyone:

I think I would be generalizing but I would say overall, I think it would be better. I think living in a refugee camp where it is very scarce where you get are getting minimal nutritious food but when you come here, you are given a food allowance, you are given different types of food to eat that you probably don't eat when you are in a refugee camp so I would so I would say in terms of better diet-overall it's better. However, I wouldn't say that is the case for everyone. [...] Maybe people eat the wrong food. For example, just eating junk food, thinking that this is actually food could be an adverse effect and their body doesn't really know this is not nutritious but knowledge-wise, the person might not know then that they are just eating junk food. So maybe not knowing the different types of food or nutritious food to eat could actually make a person have a worse diet than when they first initially came but for the most part, I think that they would have a better nutritious diet but that's just an opinion.

In the opinion of another service provider, people generally consume rice and beans in refugee camps, so when they settle in Hamilton, they are able to consume a more diverse diet. On the other hand, a refugee claimant's diet may not improve as significantly as a GAR's, because they may have already been eating well in their country of origin, since unlike most GARs, refugee claimants do not reside in refugee camps prior to coming to Hamilton.

In spite of some improvements cited above, most service providers felt that the diets of refugees generally declined. For instance, one of the respondents responsible for refugee services believed that refugee claimants may not necessarily be able to maintain the nutritious diet that they had in their home country because when they come to Hamilton, they are unable to afford healthy food. While many people generously donate food to a shelter, most of the foods that they receive are typical food bank items with a low protein and a high carbohydrate composition.

The various facilitators and barriers to acquiring healthy food that contribute to the changes in a diet, as well as health concerns, are diverse. A social ecological model enables the manifold levels of influence to be organized in a way that clearly exemplify how the different levels either support or impede refugees from accessing the healthy and satisfying food they need to attain a healthier diet. The social ecological model consists of the following levels of influences: intrapersonal, interpersonal, organizational, community and public policy.

Intrapersonal

The intrapersonal level of the social ecological model recognizes that individual characteristics, like income, employment status, budgeting knowledge, finding familiar food, literacy, media literacy, setting that the individual came from, cooking knowledge, knowledge of Canadian food and nutrition prior to coming to Hamilton, education and age will have an impact on the behaviours of the individual.

The economic status of the household can influence access to food. Two of the service providers felt that refugees' ability to purchase healthier options is dependent

upon their income. For example, due to their limited income, one of the two respondents mentioned that she saw GARs purchasing prepared boxed food items from the supermarket while the other participant acknowledged that even though there are other food options available, refugees would purchase energy-dense and nutrient-poor foods like pasta and rice. However, due to their restricted income, they have little choice.

Along with income, their employment status can also influence access to food. For instance, a medical doctor explained how there are many priorities in their life that take precedence over health and diet like securing employment. As a result, people will be able to pay more attention to finding healthy and satisfying food once issues like employment are taken care of. Aside from not being able to earn the income to afford some of the healthier food options, their employment status can also contribute to consuming unhealthy food. For example a service provider described how the employment identity of refugee claimants can be linked with their consumption of unhealthy foods, especially among married men who are not occupied enough:

But I would even [suggest] married men because they're not occupied enough. [...] If they were working, it would be a different thing but they're not yet. And so sometimes it's almost a depression and it's almost an outlet you know. They're eating because there's a lot bound up with a lot of the cultures that we work with ... that is around their employment identity. [And] now their manhood has been removed from them [because] they're not providing so yeah you see some men just turn to [...] eating poorly.

Both limited income and unemployment can affect refugees' ability to strengthen their budgeting abilities, which help facilitate access to food. . One of the respondents learned from others that refugees need to use food banks to augment the amount needed to budget for food, especially for those who send money home. Likewise, another study

participant noticed that refugee claimants generally use food banks more towards the end of the month to budget for food:

Lots of people report that by the 20th of the month some people are eligible for child tax benefits. But some of our clients are refugee claimants, refused refugee claimants. They are not eligible for that, so by the 20th of month they are running out of money. So what happens is they tend to use food banks.

In a modern, urban food system, literacy also plays a role in refugees' ability to access the food they need to achieve a healthy diet. There are refugees who come to Canada without the literacy skills in either one of Canada's two official languages, English and French. As a result, a medical doctor witnessed several families relying on their children since they are able to grasp the language faster and thus able to navigate the system quicker. However, most of the text-based educational materials regarding food and nutrition as well as the labels on food packaging are generally written in English and/or French. Another respondent also noted that literacy could influence one's ability to communicate to a staff member at the grocery store about the item that they are searching for, to prepare a meal when given instructions to do so in the form of a written recipe, and to read nutrition labels. Moreover, coming from another country, she explained, means that one may not be familiar with the food in Canada, so it can be challenging to find the food that they are looking for without the literacy skills to assist them. Another participant acknowledged that it could be hard for a refugee claimant, for example, to find the milk they need, given the wide selection of varying types of milk offered at the grocery store, from soy milk, almond milk, to cow milks with different fat contents. In addition, when the packaging of the food is not the same as what they are used to, they may not be able to recognize the food that they are looking for. For instance, a service

provider noticed that when rice is packaged in small boxes and plastic bags, GARs may not be able to make out the content inside the box or plastic bag, since they are used to getting rice in a burlap bag.

Media literacy can also influence the knowledge that some refugees have in regards to what Canadian foods to access in order to achieve a healthy diet. A service provider explained how refugees who come from camps have limited access to the media, compared to when they arrive to Hamilton. As a result, they may be more likely to believe the advertising information they are exposed to, without understanding that their objective is to sell products. As GARs become more exposed to the media, the same participant felt that it is important for them to strengthen their media literacy so that they can make healthier choices for their diet.

A service provider also observed that a brand that the media promotes can influence the purchasing decisions of some refugee claimants, especially those with limited media literacy. For example, there are times where refugee claimants would request the shelter to purchase a specific brand of juice. Moreover, although there are juice boxes priced at \$4.50 and \$0.99, some refugee claimants would purchase the juice valued at \$4.50 because of the brand name of the juice.

The environment that refugees originated from can also influence their ability to access food. A study participant who offers services to GARs specified that those coming from rural areas or camp settings are more likely to engage in unhealthy practices, contributing to a poorer diet upon resettling in Hamilton. As a result of their circumstances, they may prioritize factors such as affordability as well as time and

convenience over a healthy diet. On the other hand, she felt that Iraqi families who came from urban areas with more education are able to adapt quicker, as she notes that:

A lot of the Iraqi families have been brought up in urban settings and more education and they're literate and some people have a bit more knowledge. They can sort of piece together, "okay, so this looks like this, so it's going to be similar."

Aside from adapting to the environment in general, those from camp settings generally take more time to strengthen their cooking knowledge upon resettling in Hamilton. An individual who holds a managerial position at an organization that serves immigrants concurred that there is not much difference in cooking in Canada, with the exception of explaining the use of appliances to refugees. One of the service providers explained how individuals who come from certain places such as refugee camps may not have had the exposure to kitchen appliances before, which can pose as a barrier for these GARs. As a result, she described how those who come from refugee camps can take more time than others, especially in the beginning, to develop the cooking knowledge needed to prepare meals:

Well different refugee camps are different but when they come from very deserted and outcast refugee camps, there's not a lot of knowledge on how to cook different kinds of foods because if you're living there for 20 years, that's all you know so when you come to Canada and you have to use a stove or a microwave to try to fry something, that's a lot of learning [...] We may not think it is a barrier but it is a barrier for a few. I know some that get it right away but in the beginning, it's very difficult. It's very difficult, yes.

Although some refugees may take longer than others to develop their cooking knowledge, one respondent stated that GARs are resourceful individuals who are able to overcome various obstacles that allow them to prepare familiar meals. For example, irrespective of where they settle, a medical doctor noted that GARs are able to determine

a method to cook as they did at home in their country of origin. Moreover, although they may have limited resources, another service provider noticed that refugee claimants are able to stretch the resources that they have by using the ‘stone soup’ idea, where everyone contributes a little bit to prepare a meal.

While refugees are able to prepare meals like they did in their home country, two service providers felt that refugees lack the knowledge to prepare Canadian meals. For instance, one of the study participants assumed that refugees continue to cook in the same manner as they did in their home country because they do not know how to purchase and prepare their meals in another way. Moreover, the other respondent who works specifically with refugee claimants expressed an interest in having cooking classes that could teach refugee claimants how to prepare Canadian meals.

The knowledge on Canadian food and nutrition that refugees arrive with from their home country will affect the food they choose to purchase to achieve what they believe to be a healthy diet. With limited exposure to Canadian food, an individual who supports GARs' resettlement in Hamilton noticed that the diets of the GARs who were not aware of the different types of healthy and nutritious food in Canada worsened. She used the four major food groups as an example to highlight the difference in knowing what was considered healthy and what was not between a GAR and an average Canadian, because every culture has different foods that are considered healthy and unhealthy. Although a Canadian may be aware that a certain food item is unhealthy, a refugee may not know that. Another individual also shared an example of how a lack of Canadian food and nutrition education can affect one's perception of a healthy diet. When he encouraged

a refugee claimant to attend a class about how to feed their children, the client felt it was not necessary. The refugee claimant perceived her child to be healthy since the child was gaining weight so she did not believe that she needed to attend these educational classes. Lack of nutrition education, moreover, can affect attitudes towards trying new foods in Canada. A participant explained how literacy and the limited exposure of Canadian food could deter GARs from trying new foods especially if they are Muslims, because they do not know if the meat is halal meat or not. As a consequence, a medical doctor felt that refugees' attitudes towards trying new food would make it difficult for them to become accustomed to the selection of foods in the Canadian landscape and subsequently, this would limit their awareness of healthy options.

Aside from the limited knowledge of Canadian food and nutrition, the age of an individual can also influence their attitude towards trying new food. For instance, a service provider noticed that at events, children would not only be open and accepting of trying new food, but they would even pack cakes and cookies into cups so that they could take them home with them. One of the reasons that she felt children may be more willing to try new food was their desire to make new friends so that they can feel a sense of belonging. Unfortunately, some of these foods that they are exposed to may not necessarily be good for them. Unlike children, she explained that older adults were more comfortable consuming their traditional foods and there are places that they could find the food they prefer.

Though individual factors affect diets in many ways, it is also important to consider communal group dynamics in assessing how dietary change arises.

Interpersonal

The second level of the social ecological model, the interpersonal level, can impact the facilitators and barriers, which affect refugees' access to healthy and satisfying food. The interpersonal processes as well as family, friends and peers, can offer support, defining roles, and social identity that may help or hinder refugees' ability to access food, which in turn influences their diet.

Informal forms of assistance from family, friends and neighbours help refugees overcome some of the barriers to food access upon resettling in Hamilton. A medical doctor pointed out that refugees who were able to establish relationships or had family members and/or friends who were able to help them were better off. As people become more familiar with their environment, she continued, they would help others who have recently arrived transition into their new surroundings through the provision of translation services, information about their new neighbourhood, and shopping tours. A medical doctor provided an example of a family who adjusted to Hamilton and had taken the initiative to help other refugees who recently arrived:

One of my patients with a little autistic kid who arrived, I remember years ago, and the family is very well acclimated to Canada now. [...] His dad brought me a [card] in my office and I was like... "how do you know about this place? [...] you're back, you speak English, you have a job, you're... you know." "Oh no, I go back and I translate for my friends. I'm translating there. And I take my friends there because they don't have a doctor. Can they come to see you?" [...] So it's an interesting transition in that he's clearly passing a lot of the information to the community ... and has taken them for a few shopping and done lots of things in addition to being their translator. It's just everybody has information to share and it's not through handouts and it's not through doctors.

She also believed that there is reasonable informal support for many of the GARs who are Somali, Iraqi, Assyrian, or Arabic, as there is currently a well-established Somali

community in North Hamilton with an emergent Iraqi and Assyrian population. As one of the most established cultural groups in Hamilton, according to two of the service providers, a medical doctor saw that most of the information propagated in the Somali community goes through informal channels. Likewise, another service provider perceived Somalis as community-oriented individuals; they inform one another about where to get familiar foods and how to prepare the food, and they share their food with one another. Similarly, another participant noted that at times, refugee claimants would receive some food from their informal networks as well. Aside from information and food, a service provider found that GARs who had family, friends, or neighbours with access to a vehicle may not need to walk or bus home with groceries in a cart as they may be able to receive help to transport their groceries home.

The parents of the household, especially mothers, generally have a strong defining role in influencing the food consumed by her children. One of the service providers felt that mothers have the greatest impact particularly among children who have not begun to attend school yet. Although parents may be worried that their children are not eating properly, at times, the actions of the parents raised some questions among service providers. For instance, a medical doctor was perplexed when she learned that some parents provided their children with sugar cereal and chocolate milk. She also found that some Eastern Europeans from the Roma community added sugar to their children's feeding bottles. One of the study participants speculated that parents fed their children certain foods based on their knowledge of what was appropriate, whereas another participant felt that at times the parents would like to treat their children:

If the kid was just eating like raw potatoes or something at home and now it's like let's spoil them for a while.

The parents who make the consumption decisions for their child based on his/her knowledge of the type and quantity of food that is considered appropriate or his/her desire to please their children at times can positively or negatively affect the diets of their children. As teachers and peers begin to also play a role in the foods that are accessed by school-aged children once they begin to attend school, the role that the parents play in influencing the foods that their children access will decrease. Being in a new food environment, the parent may not recognize that certain types of foods are not necessarily healthy for their child. As a result, a service provider indicated that teachers may raise awareness about the food that the parents send to school with their child.

While parents and teachers can play a critical role in defining the foods that children consume, peers can influence the social identity linked with certain food, which may encourage or deter refugees from eating particular foods. For instance, a medical doctor noted that once children begin to attend school, the influence that parents have on their children's diet may decrease and the influence of their peers would increase. This may lead to certain tensions at home, especially among school-aged teenagers who prefer to go out for foods that their friends are consuming like pizza and fries while their parents would like them to consume foods prepared at home. A medical doctor pointed out that some schools with students who are normalized to the idea of newcomers would be more accepting of food from different cultures. However, at schools where certain cultures are the minority of the student population, their peers may not be as accepting of their food.

The findings at the interpersonal level of the social ecological model demonstrate the support, defining roles, and social identity that processes and primary groups elucidate can impact the food accessed and consumed by refugees. Besides examining the interpersonal level, it is necessary to also study the issue of food security at a broader organizational level.

Organizational

At the organizational level of the social ecological model, the food system, the built-environment, as well as the structures of community and faith-based organizations, may promote or hinder refugees' access to healthy food. The current configuration of the food system is not sustainable for refugees. To begin, the regulations of food pricing at local grocery stores can enable or limit refugees' access to foods. Three of the service providers indicated that they considered the cost of foods for refugees to be high. Although the number of food options has increased in Hamilton, service providers felt that refugees are not able to access healthier food options with their limited income.

While the high cost of food acts as a barrier among refugees, service providers perceived the type of foods stocked at local grocery stores to be both an obstacle and a facilitator in achieving food security. Four service providers mentioned that there are large Asian supermarkets as well as smaller specialty stores in Hamilton that stock the traditional foods that many refugees were looking for. Although there are familiar foods from their home country, a service provider felt that the diets of GARs declined after they arrived to Hamilton due to canned and processed food that the typical grocery store

stocked, which is different from the natural, raw, and fresh fruits and vegetables that refugees were previously accustomed to:

I am thinking that they change for the worse when they are used to eating a lot of vegetables and grains, just raw food and not cans and processed stuff. And then they come here and they get a very little amount of money and it is cheap to buy Kraft dinner and you see them eating a lot of stuff like that.

Aside from regulating the costs of food and the foods that are stocked in local grocery stores, the geographic structure of Hamilton can also affect food security among refugees. A study participant found that one of the reasons that refugee claimants were unable to access the food that they need was due to the location in which they settled. With the limited housing options available for refugee claimants, he noticed that they might not be able to perform all their tasks efficiently without being able to access the appropriate means of transportation, although he did acknowledge that the number of shopping options has increased in certain areas of the city. On the other hand, while he noticed that the city is becoming more accessible with newer city planning, he pointed out that vehicles are still required to get around. For example, another service provider mentioned that single mothers who lived further away from the discount grocery stores found it challenging to get to these stores if they could not drive there. Based on her experience working with GAR families, families did not specify to her that the provision of food for their family was an issue per se, but the distance needed to physically access the grocery stores that sold their preferred foods was a problem for families.

On the other hand, transportation was not a huge issue for GARs who were able to find homes near grocery stores and in a supportive community. One of the Somali staff members at one of the participating organizations commented that most of the Somalis

GARs generally like to remain close to other Somalis, so it was not necessary for them to purchase a car although a few of them have vehicles as they can walk or bus to their destinations:

One of my staff is Somali and she is very involved at the mosque and she lives just at Wellington here. So they are all in this Beasley community and then on Queen Street. They are a very tight knit community. As far as getting food, because they are so tight nit, very few of them have any transportation at all. They don't have a car or anything like that. So they have to rely on busses and walking. But most of those places are near a [grocery store]. Sometimes, they have to think about that when they are looking for a home. But they are very limited on the kind of place they can rent because their RAP income, their income for the year, is just slightly higher than Ontario Works. So they can only afford so much. But yeah, they are heavily reliant on busses and walking.

As a result, when looking for a home, a study participant noted that aside from considering whether their home is near a school, they take into account other factors such as if the home is near a grocery store or plaza that enables them to access food more conveniently.

As part of the organizational level, community organizations influence refugees' access to food by providing food and nutrition education through text-based educational tools, information sessions, cooking training, community kitchens, community gardens, as well as shopping tours, which in turn will impact the diets of refugees. While text-based materials can provide information regarding food and nutrition as well the locations of where foods can be accessed, they are not very effective for refugees. Like one of the service providers, a medical doctor also found that language and literacy are barriers to comprehend printed materials. She found that it is more effective to communicate the information through a community member who has settled in Canada for a period of time.

Information sessions provide an opportunity for educators to communicate information verbally. While a RAP service provider organization provides an orientation to verbally communicate food and nutrition information to newly arrived GARs, one of the participants also mentioned that the RAP service provider organization organizes health awareness days where experts from the community are invited to share their knowledge on a topic like diabetes. Since the health awareness days seldom occur, she felt the need to organize more health awareness days in the future. Besides health awareness days, she also noted that the RAP service provider organization holds nutrition classes tailored to GARs. The nutrition classes include many visuals and cover topics that are more relevant to GARs such as reading nutrition labels, examining the content and packaging of food, understanding preservatives and processed foods, distinguishing halal meat from other types of meat and finding halal meat in Hamilton. She also identified additional topics to incorporate into the nutrition classes such as helping GARs understand how to use nutritional fact labels, as well as ways to determine what is in the food. Another participant also felt that nutrition classes at a RAP service provider organization can be further improved:

I would say just to have people that are knowledgeable who could teach through teaching to come in and have like maybe weekly stuff where they incorporate food and healthy food like eating just to show the kids that we're going to give you the food, we're going to show you the food, these are the types of foods, just to sort of promote healthy eating – I think that's something that I would do.

One of the service providers expressed concerns regarding the nutrition classes. He found that after the first three weeks of classes, the attendance rate among refugee claimants began to decline. Moreover, a medical doctor felt that although the classes

provided food and nutrition information to refugees, it is harder to perceive the barriers and experience without being actually there:

Information sessions don't involve what's the realistic or what preferences people have or what barriers are but I would prefer to see a lot of what's close and available, what's cheap, and what's culturally acceptable and they know... they know what it is and what's actually in it.

On top of the barriers mentioned above, one of the greatest challenges is the language used to deliver information sessions. Refugees come from countries across the globe with different languages spoken. Several service providers found that it is a challenge to facilitate information sessions to an audience with different language skills. A study participant found that the sessions proceed at a slower pace when the class consists of individuals with diverse English language skills.

While multiple languages in an information session can be a barrier for effective delivery of information, there are proposed solutions to address this problem. For instance, a service provider expressed her idea of delivering more single language-based classes since it is hard to have more than one interpreter per session. While information sessions on food and nutrition are important, a medical doctor favoured experiential education over information sessions. Cooking classes, community gardens and community kitchens are all examples of more hands-on approaches to experiential education that could increase refugees' knowledge about accessing healthy and satisfying food. Three of the service providers expressed an interest in having cooking classes with an instructor who would teach refugees how to prepare a variety of dishes. While another participant shares a similar vision to other service providers, he would like the person who comes in on a regular basis to assume more of a facilitator role during cooking

classes. This would provide participants with more freedom to prepare the food that they prefer. While cooking classes are perceived to be a great idea, a service provider mentioned that it is a challenge to secure an appropriate location to hold these cooking classes, as they are still working to connect to a community centre with a kitchen.

Although cooking classes are a great way to overcome some of the barriers aforementioned in the intrapersonal and interpersonal levels, community gardens and community kitchens offer an opportunity to work together and to learn from one another to grow and cook foods that are both new and familiar to refugees. Community gardens provide a great learning experience for young people. A service provider described a summer program where they brought youth including GARs on weekly trips for two months near areas that many newcomers settled. One of the trips was to a community garden where young people were shown how to grow fruits and vegetables, as well as plant flowers. Community kitchens encourage community cooking. A study participant noticed that it is not necessary to force people to come together because there is a natural realization that there is a need to create a network. For him, it is wonderful when refugee claimants come together without any direct influence from their organization. Once they find their community, they will prepare community meals together where one person will bring the rice, another will bring the tomatoes, and another will bring the cilantro, and together they will create a meal with the different ingredients. It is not only the refugee claimants who benefit from community meals but the staff members and volunteers who are involved as well. When a guest at the house prepares a meal with the food that the organization purchases on the basis of their requests, everyone who is present, including

volunteers and staff members are also invited to the meal. While the guests can prepare the food they want, the staff members and volunteers can enjoy a meal from another country that they would have had to pay \$25 dollars for. As a result, everyone benefits from the community meals.

Shopping tours can also serve as an excellent experiential method to teach refugees to how to shop for food. The shopping tours are successful in introducing fundamental Canadian shopping practices to both GARs and refugee claimants. From the discussions that a medical doctor had with her patients, she found that shopping tours are a practical way to teach her patients about shopping, as her patients were able to retain the information and make healthy purchasing decisions. For example, from the shopping tours, they learn how to locate healthier food options based on the logistical arrangement of the grocery store. Volunteers from certain community organizations also take refugee claimants on shopping tours. A participant described how volunteers would equip refugee claimants with the skills to compare the prices of food, recognize common food, and identify food they need such as halal meat.

The educational tools and programs delivered by the staff members and volunteers of the community organizations can also influence access to foods. Settlement agencies hire many settlement workers and life skill workers to help GARs transition into their new country. They are usually hired based on their availability and language skills. While they may be able to communicate with newcomers, it may be a challenge for them to help newcomers make healthier decisions without nutrition training. A service provider felt

that there is the need to provide nutrition education for the settlement workers and life skills workers:

There was an Iraqi family that came with two kids and I went and met them at the hotel. And the kid came running to the door with a big bucket of Kentucky Fried Chicken. And I am thinking maybe our staffs need to be educated a little bit more. [I] thought, well geez, if we're the ones trying to steer them in the right direction, even though it was their first day in Canada, we probably could have gone to La Luna and got hummus and pita instead. It's a bit more nutritious than Kentucky Fried Chicken. [Bringing] to mind what are our staff doing? And I mean our staff is probably doing what is easiest at the time. [I] think a lot of programs that have settlement workers and life skills workers...a lot of [the workers] are newcomers themselves. And I don't know if they are always trained as best as they can in making the best choices. I think a lot of the time we are in a pinch to hire the right people that speak the languages and that are available. Sometimes, I think maybe our staff and people working with these newcomers need to be educated in order to help them start making the right choice.

Aside from staff members, it is also helpful to provide advice to volunteers. A participant offers some guidance to volunteers on shopping and food preparation. He noted that these directions have helped volunteers prepare more balanced meals for refugee claimants.

In addition to food and nutrition educational tools and programs, emergency food services such as food banks and school food programs provide refugees with food, which helps subsidize the regular household purchase of foods. Although there are emergency food services, two study participants noticed that GARs and refugee claimants associate a feeling of shame with the use of food banks. As a result, they will only use emergency food services if they really need it. One of the two service providers shared an example of a GAR who did not receive their cheque from the RAP because it went to the wrong address. As a result, a bag of food was offered to them. Although the bag mainly

consisted of canned and boxed food items with limited fresh items, there was little choice for the GAR who largely depended on the cheque as their source of food income.

While emergency food services can serve as a facilitator for individuals with limited income who rely on food banks for their food supply, a study participant who works for a community health centre (CHC) noted that the food available at emergency food services may not necessarily satisfy their needs as there have been cases where refugee claimants discard the food offered to them:

The foods that they find in food banks, most of the time, at least from my experience in the past, is canned food. And canned foods, for some reason people in Latin America believe that those kinds of foods are going to give them illness. You know, anything that is canned, [they will not eat]. So people will take it out of politeness, but they will discard of it

School food programs also offer food to the community but specifically to children. School food programs enable children to access healthy meals, which in turn may improve their nutritional status. Sometimes, there is even more food available for children at school than at home. A medical doctor did not only attest to the benefits of the school breakfast programs but she believed that these programs should be expanded to provide school lunches and food preparation skills for children. Although the school breakfast programs are successful, she acknowledged that constrained financial and human resources may restrict the ability of the school to further expand the programs.

Besides the support of community organizations, faith-based organizations also influence food access among refugees during certain religious-based celebrations, where food is offered, prepared, and delivered to low-income individuals and families, including refugees. A service provider mentioned that there are large groups of Muslims in

Hamilton who receive food from their mosque as they believe that food is meant to be shared and eaten together as a group. Another study participant explained that due to the lack of funding, it is difficult to offer food on a regular basis to lower income families but during special celebrations such as Eid al-Adha, people who are financially stable generously donate food to members of the community who need it:

So actually the next 10 days right after that, it's going to be Eid al-Adha, which is the second Eid and that's when people would slaughter and then distribute it to the poor or families of the community through the mosque [...] Just because the mosque is run by the community, they don't get any sort of funding so it's run by just regular people putting in the rental fees, the hydro, the water... so it would be very difficult to also get food for the community like the less fortunate of the community but during the two times of during the year, which is the celebration, they have people who have the money to bring the meat that they have slaughtered. A whole bag is given and distributed anonymously of course just to save face for people who don't want to be seen as less fortunate but other than that - they don't.

She also indicated that members of the religious community would donate their time to prepare meals for those who attend the mosque during Ramadan. She noted that during the 30 days of Ramadan, each day, a family or an individual will sign up to work as a community to prepare meals for those who come to the mosque to break the fast. She estimated that there are approximately 200 people who are served on a daily basis during Ramadan. During that month, blessings are exchanged for charitable acts such as signing up to prepare meals for the community, including those who may not be as fortunate to afford a meal to break the fast.

Aside from donating food as well as their time to prepare the food during certain cultural celebrations, members of the faith community will also actively distribute the food. She also mentioned that they would delegate youth to distribute food to break the

fast. She noticed that this provides relief to larger families as it is not easy to prepare food every day to feed a number of children with a limited budget.

To summarize, food security among refugees can be influenced by a number of factors at the organizational level, including the regulations of local grocery stores, the geographic structure of Hamilton, as well as the informal structures of community organizations and faith-based organizations.

Community

The community level encompasses the social networks and the norms of the community among individuals, groups, and organizations, which can influence food security among refugees. Upon resettling in Hamilton, refugees adapt to the community norms of Hamilton from shopping practices, prepared school lunches, food storage practices, to food consumed. While adapting to these community norms, there are influences from their social networks as well.

The shopping practices of the community influence food security among refugees in Hamilton. A medical doctor noted that supermarkets may be initially perceived as intimidating to GARs, since they are used to purchasing fresh fruits and vegetables from an open air market. In addition, they will generally purchase ingredients and prepare their meals from scratch in their home country. As a result, she also noticed that many GARs are not used to the pre-prepared packaged food items in supermarkets.

Aside from the differences in the shopping environment and practices, the adaption to prepare school lunches in a manner that is considered to be the norm by their new community can affect refugees' diet as well. Several service providers noted that one

of the key concerns among parents who resettle in Hamilton is the challenge of preparing a school lunch for their children. A service provider found that refugee claimants' perception of what is considered a suitable lunch in their home country may differ from that in Canada. For example, he discerned how refugee claimants do not consider a sandwich to be a lunch since it is not a hot meal. As a result, he noticed that some refugee claimants would rather go home after their ESL classes and consume a large meal at the end of the day than to have a sandwich for lunch at noon. Moreover, another service provider voiced that lunch preparation is an issue that needs to be addressed. Since allergies may not be a common issue in their country of origin, they do not always take food allergies into account when preparing lunches. As a result, GARs may prepare foods with nuts in them not knowing foods with nuts are banned from schools in Ontario.

Some refugees also struggle to adjust to food storage practices. A participant mentioned that some of the GARs receive complaints from their children's schools if their children's lunches are not stored properly. As a result, she indicated that a RAP service provider organization coordinates activities to address the knowledge gaps of GARs while enabling them to continue to bring the food they desire:

Hamilton Centre for Civic Inclusion did an event specifically for Somali mothers because the schools were kind of complaining that the kids were not getting foods or they weren't storing or keeping the foods stored properly [...] Yes, so they would put their pasta in a plastic bag or a Ziploc bag or something so HCCI came to us. [O]ne of the ladies that I was telling you [about], we were coordinating with the families to bring the mothers-just to have a basic understanding of what types of foods that the kids need to eat, and how to properly store the foods for them [so] they were just being taught, okay if you give them rice, or pasta, then make sure you put in a banana or just an apple.

Coming from another country, a refugee may not be familiar with the food in Canada but beliefs about the food that one should consume upon resettling in a new country can influence one's selection of foods to consume when adapting to a new culture. For example, a medical doctor felt that one of the reasons that refugees consume fast foods is because they believe that it is a norm for Canadians to eat fast foods.

In short, the fourth level of the social ecological model, the community level, has demonstrated that the norms of the community among individuals, groups, and organizations can influence refugees' shopping practices, school lunch preparations, food storage practices, and consumption of foods.

Public policy

The final level of the social ecological model, the public policy level, refers to the policies and laws made by the national and provincial levels of government regarding social assistance and services that indirectly affect food access and consumption such as the RAP and Ontario Works. The government also plays a role in nutrition education through the revision of the nutrition label regulations and Canada's Food Guide (CFG).

While the Government of Canada provides financial assistance through the RAP to help with the resettlement costs, some of the service providers felt that the income from the RAP is not enough to meet the needs of these refugees. For instance, a respondent who works at an organization that aids GARs resettle noted that with the limited income GARs receive from the RAP, it is a challenge for them to allocate enough for food, especially if they are sending money home, as this leaves them with a limited amount to purchase food:

The other thing that is worse as well is when they come and they get that small amount of money from RAP, one of the trends is that a lot of them will send money home and because of sending money home, they have very little and will buy the cheapest stuff they can buy just to keep alive. And they use the emergency food banks to augment whatever they are missing.

While service providers recognize that Ontario Works is a form of financial support, five of the nine service providers indicated that the income from Ontario Works is less than the income provided through the RAP.

Moreover, as noted by a medical doctor, refugee claimants are not eligible for the RAP. Therefore, refugee claimants may encounter similar or more problems in managing the limited income they receive from Ontario Works. Another study participant mentioned that refugee claimants have to make difficult decisions between food and shelter because of their limited budget:

The people that we work with first of all, they don't have the money to shop. [The] first thing is that they think Canada is expensive. Then they always say that they're always on Ontario Works. So you're balancing your budget between your roof and your food[,] which way do you go? If you want the nicer apartment, then you have less money for food and so forth...

In addition to financial aid, as part of the RAP, they also receive orientation services. A service provider explained that within the first ten days of arrival, a service provider organization has life skills workers who provide GARs with a shopping tour as well as food and nutrition education for young people. Teenagers are educated about different food groups, appropriate food selection for certain ages, locations to get certain foods, and how to prepare healthy meals. As for younger children, activities such as colouring exercises are used to educate them on the consumption of healthy foods and beverages. Aside from educating them on food and nutrition, she also mentioned that life

skill workers generally train GARs on the use of cooking appliances once they have settled into their new home since hotels often do not have cooking appliances. GARs are also taught about the safety precautions associated with the appliances. Moreover, Client Support Services workers teach them about food handling practices, such as how to store food in an appropriate manner.

In addition to specific nutrition education programs for refugees, the Government of Canada regulates labelling of food products. However, one of the respondents thought that the labels are challenging to read and expressed the need for refugees to receive guidance on how to read the nutritional labels.

Another educational tool promoted by the Canadian Government is the CFG. A participant who works at an organization that provides services to GARs commented that even though there are CFGs published in different languages at the Client Support Services office, there are GARs who are illiterate in their own languages. Thus, she applies the information from the CFG to teach GARs about food and nutrition on a PowerPoint presentation. She modifies her presentation in a way that is more culturally appropriate and incorporates more visuals to help her audience better understand the information presented.

Likewise, as opposed to distributing CFGs to refugee claimants, a service provider applies the information from the CFG to better serve the needs of his clients. In this case, he uses the CFG to advocate for the needs of refugee claimants to garner the necessary funding to meet the diet that the CFG recommends. Although, he does not present the

information in the CFG to refugee claimants, he may discuss the topic with them as it comes up.

To summarize, at the public policy level, the contributions of the government at different levels has offered financial, service and education form of assistance to refugees on the basis of their status. While these forms of support have helped refugees, there were a few service providers who expressed ways that these support could be improve.

Summary

In conclusion, the service providers interviewed offer their services to various newcomer populations with some service providers working with certain types of refugees in greater capacity than others. These service providers identify various diet-related health concerns along with dietary changes among refugees. By examining the facilitators and barriers to food security from the perspective of the service providers at different levels of the social ecological model, the entwined and complex relationships between different levels is recognized. The following chapter will examine the diet-related health concerns, dietary changes, and the facilitators and barriers to food security from the perspective of refugees.

CHAPTER 5: REFUGEES' PERSPECTIVE

The chapter applies a social ecological approach to examine the facilitators and barriers to refugees' food access from the perspectives of twelve participants who came to Canada either as a government-assisted refugee (GAR), a privately-sponsored refugee (PSR), or a refugee claimant. The chapter begins with a socio-demographic profile of the participants, followed by a description of their reported diet-related health concerns and their perspectives on dietary change after moving to Canada. The chapter then outlines the facilitators and barriers that influence access to healthy and satisfying food identified by refugee participants at different levels of the social ecological model.

Socio-Demographic Profile of the Sample

The participants took part in one of the three focus group interviews held between February 2014 and May 2014. There were an Arabic-speaking, Somali-speaking and Spanish-speaking focus group interviews. Each interview was held at location convenient and familiar to the participants. **Table 5.1** provides an overview of some of the socio-demographics of the participants who were involved in one of the three focus group interviews.

Table 5.1 Socio-demographic characteristics of focus group participants

	Arabic refugees (n=3)		Somali refugees (n=6)		Spanish refugees (n=3)		All refugees (n=12)
	n (%)	mean (range) (years)	n (%)	mean (range) (years)	n (%)	mean (range) (years)	n (%)
Age		50.3 (46-56)		32.7 (24-42)		63.7 (61-67)	
Gender							
Male	0 (0%)		1 (16.7%)		0 (0%)		1 (8%)
Female	3 (100%)		5 (83.3%)		3 (100%)		11 (92%)
Married/ Common-law relationship	3 (100%)		3 (50%)		0 (0%)		6 (50%)
Country of origin							
Iraq	3 (100%)		0 (0%)		0 (0%)		3 (25%)
Somalia	0 (0%)		6 (100%)		0 (0%)		6 (50%)
El Salvador	0 (0%)		0 (0%)		1 (33%)		1 (8%)
Colombia	0 (0%)		0 (0%)		2 (67%)		2 (17%)
Employment status							
Employed	2 (67%)		1 (17%)		0 (0%)		3 (25%)
Unemployed	1 (33%)		5 (83%)		3 (100%)		9 (75%)
Highest educational attainment							
Did not complete secondary school	0 (0%)		6 (100%)		1 (33%)		7 (58%)
High school diploma	0 (0%)		0 (0%)		1 (33%)		1 (8%)
Some college or university	0 (0%)		0 (0%)		0 (0%)		0 (0%)
College diploma or university degree	2 (67%)		0 (0%)		1 (33%)		3 (25%)
Master's degree	1 (33%)		0 (0%)		0 (0%)		1 (8%)
Household income							
Less than \$20,000	1 (33%)		4 (67%)		3 (100%)		8 (67%)
\$20,000-\$39,000	2 (67%)		1 (17%)		0 (0%)		3 (25%)
\$40,000-\$79,000	0 (0%)		1 (17%)		0 (0%)		1 (8%)
More than \$80,000	0 (0%)		0 (0%)		0 (0%)		0 (0%)
Year settled in Canada							
Before 2007	0 (0%)		0 (0%)		1 (33%)		1 (8%)
Between 2008 and 2012	3 (100%)		2 (33%)		2 (66%)		7 (58%)
2013	0 (0%)		4 (67%)		0 (0%)		4 (33%)
Status when they first arrived to Canada							
Government-assisted refugee (GAR)	2 (67%)		6 (100%)		0 (0%)		8 (67%)
Privately sponsored refugee (PSR)	1 (33%)		0 (0%)		0 (0%)		1 (8%)
Refugee claimants	0 (0%)		0 (0%)		3 (100%)		3 (25%)

In the Arabic focus group, there was one PSR and two GARs who came from Iraq while all six of the refugees in the Somali focus group were GARs from Somalia. On the other hand, all three women in the Spanish-speaking focus group arrived as a refugee claimant to Canada from El Salvador (n=1) or Colombia (n=2). Aside from region of origin, certain key demographic variables vary among the three focus groups. In terms of age, there are representatives from younger and middle-aged adults, as well as seniors. As a reflection of the age of the participants, the younger Somali participants resettled more recently in Hamilton between 2010 and 2013, whereas the Arabic-speaking group settled in Hamilton between 2008 and 2011. In contrast, the Spanish-speaking group lived in Canada for more than five years, with some arriving as early as 1987, and another as recent as 2008. To provide an additional perspective on the existing variation in the characteristics of the household composition, half of the Somali refugees were either in a marriage or a common-law relationship, the other half was not. While all three of the Arabic-speaking participants reported that they were either married or had a common-law partner, all three of the Spanish-speaking participants indicated that they were not married, nor did they have a common-law partner. Moreover, while all participants have at least one child, most have between one and three children.

Despite some variability, the majority of participants in this study can be characterized as unemployed females who came to Canada as a refugee did not complete secondary school, and have an annual household income of less than \$20,000 a year.

These social determinants, particularly annual household income, employment status and level of education attained, may influence the ability of refugees to achieve

food security. For instance, although most of the Spanish-speaking participants were the earliest to settle in Hamilton, all of the participants proclaimed an annual household income of less than \$20,000 per year and thus may have the highest dependence on social assistance. In contrast, the participants from the Arabic-speaking focus group completed higher levels of education than the participants from the other groups, had a higher employment rate, and a higher proportion of individuals with an annual household income of over \$20,000 per year. The socio-demographics of this group will be taken into consideration when assessing the facilitators and barriers experienced by refugees to food security.

Diet-Related Health Concerns

Upon settlement in Hamilton, a number of refugees expressed diet-related health concerns, which included weight gain, diabetes, high cholesterol, vitamin D deficiency, low calcium, allergies and constipation. For instance, prior to coming to Canada, one of the GARs from Somalia believed that she did not have diabetes. She felt that her diabetes developed after she arrived to Canada “because of the food and all the stress.” Similarly, a woman who came from Colombia to Canada as a refugee claimant felt that her high cholesterol and diabetes were due to the stress she incurred from trying to learn English:

No problem because my cholesterol and my diabetes is caused by stress. No problems. Yes, I like. I think problems for my cholesterol and my diabetes. [...] For my stress, I think...for my stress...For my English...

Moreover, a GAR from Somalia felt that the number of high cholesterol cases in Canada was significantly greater than in her home country. She explained how the link

between the lifestyle and the food consumed in Canada may have contributed to the higher prevalence of high cholesterol:

Interpreter: Here, there is a huge case of people with cholesterol. Back home, you don't get that because there is no sitting of the fat once you eat, like the meat. So everything else is burned. So there are no cases of cholesterol. But here in Canada, there are high cases. You're going to eat a small amount of meat and oil and all in a sudden you have cholesterol.

Another reason that another Somali GAR attributed to fat being burned more in their home country is that people tend to be more active in her home country where the weather is warmer. Since she is currently not working, she also mentioned eating more, which causes her to gain weight.

While a lack of vitamin D and calcium was generally not brought up as much as diabetes and high cholesterol as diet-related health concerns, an Arabic-speaking GAR from Iraq expressed her concerns about calcium and vitamin D deficiency after she arrived to Canada. She assumed that her concerns were due to the fact that there is less sun in Canada compared to her home country, which was also agreed upon by a PSR and another GAR from Iraq. She felt that there was a greater emphasis on the need for vitamin D and calcium in Canada compared to Iraq. A PSR indicated that in her home country, they would never check for vitamin D deficiency or bone density. The PSR admitted that she only began to take calcium after her routine bone density check for those who are above the age of 50 in Canada.

Although refugees were able to recognize several diet-related health concerns before coming to Hamilton, there were other diet-related health concerns that participants were not aware of until they were diagnosed with the condition in Hamilton. For instance,

prior to coming to Hamilton, a GAR from Somalia said that she has never heard of food allergies while another GAR from Somalia only learned about constipation, a common health concern among Canadians, after she resettled in Hamilton. Even though most of the refugees voiced a number of diet-related health concerns after their arrival to Canada, there were two refugee claimants from Colombia and El Salvador who reported no diet-related health concerns, even though they were over the age of 60.

In summary, most refugees expressed various diet-related health concerns after coming to Canada. These concerns include diabetes, high cholesterol vitamin D deficiency, low calcium, allergies and constipation. Refugees attributed these concerns to a range of reasons from dietary changes after migration, stress incurred due to factors related to resettling in Canada, environmental factors such as less sun exposure, to the diagnosis from routine check-ups.

Dietary Changes

Over a period of time in Canada, refugees were able to see changes in their diets, whether it was for the better or worse with the exception of one refugee claimant from Colombia who did not notice any changes in her diet.

A few refugees observed an improvement in their own diet and/or the diet of their family members upon arrival in Canada. For example, a PSR from Iraq felt that her diet improved due to a change in lifestyle between her home country and Canada. When she was in Iraq, she would eat a meal shortly before going to sleep since she had been working all day. As a result, she gained weight. However, she remarked that she lost approximately 14 kilograms after resettling in Canada. Likewise, she also noticed her

younger son who was overweight three and a half years ago is now no longer overweight after adopting a healthier diet in Canada. Moreover, a GAR from Iraq felt that the diverse store selections and different pricing of food available in Hamilton contributed to an improvement in her diet as well as her family's. She also believed that it may be because people in Hamilton are becoming more educated about the food they consume with the Internet being widely accessible. Another refugee claimant from El Salvador, who immigrated to the United States before coming to Canada, found that her diet improved when she came to Canada. When she was in the United States, she was overweight. When she resettled in Hamilton, her weight declined as she consumed more fruits and vegetables.

In contrast, two of the GARs from Somalia specified that after they resettled in Canada, they consumed more food, especially during the cold weather. The presence of fast food restaurants in Hamilton would entice a GAR from Somalia to purchase a large Tim Horton's coffee, especially in the winter, albeit she knew that coffee was not necessarily great for her health. Like the two GARs from Somalia who associated a decline in the quality of their diet with coming to Canada, a refugee claimant over the age of 60 from Colombia also felt that her diet worsened as she acquired diet-related health concerns like cholesterol and a heart problem.

Overall, most refugees found that there were changes to their diet, whether it was for the better or worse, with the exception of one refugee claimant from Colombia who did not perceive any changes in her diet upon coming to Canada. As briefly mentioned above, these dietary changes are influenced by certain facilitators and barriers to food

security. A social ecological model provides a framework that illustrates how the integration of multiple levels of influence either support or hinder refugees from achieving a healthier diet. The multiple levels of influences include: intrapersonal, interpersonal, organizational, community and public policy.

Intrapersonal

The first level of the social-ecological model refers to the intrapersonal level, which identifies the biological and personal characteristics that can affect one's beliefs, knowledge, attitudes, and self-efficacy.

The beliefs about what contributes to a healthy diet can be considered a facilitator that influences the diets of these participants in a positive manner as they have demonstrated a good knowledge of a healthy diet. A GAR from Iraq, a GAR from Somalia, and three refugee claimants either from Colombia or El Salvador mentioned that fruits and vegetables were an important part of a healthy diet. Moreover, while refugees (n=3) agreed that a healthy diet consists of less fat, a GAR from Iraq and a refugee claimant from Colombia also felt that a healthy diet should encompass less salt and sugar. Likewise, the same GAR from Iraq and another refugee claimant from Colombia specified that a healthy diet should include a small quantity of a variety of foods. On the other hand, an older GAR from Iraq believed that at her age, calcium is an important part of a healthy diet.

The knowledge about what is considered 'Canadian' food can also influence a newcomer's attitude towards food consumption. When asked what came to mind when they thought of Canadian food, the most common food items included pizza, hamburgers,

and fruits. While these foods can be considered healthy or unhealthy, refugees who generally associated Canadian foods with fast foods usually perceive Canadian foods to be unhealthy. As a result, some expressed a dislike towards Canadian food. However, a few of the refugee participants who associated Canadian food with good quality, healthy food, had a positive attitude towards Canadian food.

Aside from having a liking for certain Canadian foods, two GARs expressed an interest in learning how to prepare Canadian dishes. Although they were not familiar with preparing Canadian meals, all of the Somali GARs indicated that they were able to prepare typical Somali meals that they were familiar with, given the food that they are able to find in Hamilton. However, one of the Somali GARS mentioned that the food smells different even if a lot of spice was added to it. Likewise, when asked if a GAR from Iraq can make the same food in Hamilton, she answered ‘yes’.

The formal education attained by individuals can also influence their ability to access food and nutrition information, which includes accessing food and nutrition information online and reading the labels on the packages of food. In this study, with seven of the participants who did not complete secondary school education and ten of the participants who came from a country where English is not the official language, English literacy is a problem. For example, when the Arabic-speaking focus group was asked if they were aware of any services in Hamilton that delivered food and nutrition information, a GAR and a PSR immediately responded with a ‘no’. While the PSR indicated that people can go online for food and nutrition information, the GAR pointed out that there is a language barrier that may make it challenging for many to access the

information in English. There were GARs (n=2) from Somalia who were also concerned about the food they consumed, since they were unable to read English. Without the ability to read English, it is difficult for them to decipher the ingredients written on food labels. One of the GARs from Somalia would spend a relatively long time assessing the package of the food to ensure that the food did not contain any ingredients that she cannot consume due to religious proscriptions such as meat that is not halal. Moreover a GAR from Iraq mentioned that being unable to read English can be a problem for those with allergies. The other GAR from Somalia who did not know how to read English echoed this problem as the consumption of certain food can have negative consequences on her health:

If you don't know how to read, you don't know what you're eating. So there are times that I have eaten things that I don't know. [The] reason for that is because I can't always have people reading the ingredients for me. It's going to be very difficult for me if I have to go and ask everyone, "Can you read this for me?" My kids are also new, so they don't speak English. Another thing is I have diabetes. So for me, it's going to be even more difficult if I have to stress over that on top of it.

Unfortunately, there are barriers that may take more time to overcome such as the lack of income and employment among refugees. A GAR and PSR indicated that limited income and unemployment is a barrier. Since 67% of the participants' household earn less than \$20,000 on an annual basis, and 75% of refugees are unemployed, their food options are limited by their income. A PSR from Iraq found herself purchasing the cheapest item when she was unemployed because she no longer had the income to afford certain produce like organic food.

Therefore, with limited income and unemployment, strong budgeting skills can act as a facilitator to food security. When one of the GARs from Somalia initially received a large sum of money from the government, she did not know how to budget it. She would spend most of her money shortly after she received it. Though she agreed that she could always use more money, she was able to manage eventually with the amount she received. As time went on, she learned to budget and manage her money better. With the limited income that GARs receive from the government, GARs will try to spend no more than the amount that is designated for food. If it is not enough, some participants from the other two focus groups (Arabic- and Spanish- speaking groups) mentioned that they would use other strategies to budget for food such as going to food banks, freezing leftover food, browsing supermarket flyers to purchase discounted food items on sale, and buying less costly, fresh produce in season.

The individual qualities of a refugee can influence their beliefs, knowledge, attitudes, and self-efficacy. In turn, this affects the level of food security among refugee individuals and households.

Interpersonal

The interpersonal level of the social ecological model can also influence important facilitators and barriers to food security. The interpersonal processes as well as primary groups such as family, friends and peers, can offer defining roles, support and social identity that either promote or hinder their ability to access food, which in turn affects their diet.

The person who assumes the role of purchasing and preparing food in the home can have the greatest impact on the diets of the household. For instance, although one of the GARs from Iraq tried to take the food preference of her family members into consideration by asking them for their opinion, the usual response would be to cook what she would like to cook. As a result, the individual who shops and cooks for the family may try their best to accommodate other members in the household. On the other hand, when asked if their children would consume the traditional food served at home, both GARs (n=2) and a PSR from Iraq agreed that their children generally consumed the food they prepare at home except sometimes, a few children of GARs (n=2) may go out with friends to eat at restaurants on Fridays after school or on weekends. Yet, in the few cases (n=4) where the responsibility is shared among partners, friends, and other family members, the influence upon the diet of the household is also shared. For instance, a GAR from Iraq will cook while her partner will purchase the food for the family, since he enjoys assessing the nutritional information on the packages of foods. Both the time that he takes to assess the nutritional value of the food before making any purchasing decisions and the manner in which she prepares the food would influence the diet of the household.

Family members, friends and peers can also support one's access to healthy and satisfying food. When one of the GARs from Somalia first arrived to Canada, she explained that she was only able to access the food she needed because of the help that she received from another Somali woman:

On the first day that I came to Canada, a Somali woman who lives up the mountain assisted me in buying food. After that, about three to four weeks, I wasn't able to go shop because I didn't know where to go and how to get there.

The diet of refugees can be affected by the social identity that friends and peers link with certain foods, particularly traditional foods from their countries of origin. Several GARs found that their friends and peers in Canada accepted the traditional food that they consumed. For instance, one of the GARs from Iraq felt that her Canadian neighbours were very accepting of the food from her home country, so she usually shared her food with them. Likewise, a few of the GARs from Somalia (n=3) indicated that when their children brought traditional food to school, their children did not experience any issues with their lunches and two of the three GARs mentioned that their children's friends wanted to eat the food that they prepared for their children or asked their children to bring the food again for lunch. Moreover, although one of the PSR's sons enjoys going out to eat with his friends, he would request his mother to prepare homemade food for lunch on weekdays.

On the other hand, this was not always the case, as a few refugees (n=2) indicated that their children did not like to bring food from home to school for lunch, because other children either made fun of their children's food or gave strange looks. In these cases, to avoid their children's discomfort, a Somali GAR no longer prepared traditional food for their children:

I don't even give the children traditional food. One time, when we were new, I made them pasta and sauce and all the traditional food in it. After a few times, the kids were being looked at and the kids did not feel comfortable. So they brought the food back. They didn't want it anymore, so I didn't want to give them traditional food for lunch anymore after that. The kids don't know what's good for

them. If they are being looked at weirdly, they are going to bring back that food and not show it to their class.

Besides young children, adults also experienced the discomfort of bringing traditional food to school or work. For instance, a GAR from Iraq found that when she prepared food for her adult son to bring to work, her son would often refuse to bring her food to work since the food that she prepared was not the same as the food his friends ate. As a result, he often purchased food. However, he soon realized that purchasing food on a regular basis was costly and that many of his colleagues often brought their lunches from home in Tupperware. Therefore, he began to request his mother to prepare sandwiches for him to bring to work. It was evident that the food habits of his son's colleagues had an influence on her son, which affected the food and the way she prepared lunch for her son.

Organizational

The food system, including the regulation of food prices, the food stocked, and the quality of the food in local grocery stores, the support structures of community organizations, and the geographic structure of Hamilton, may promote or constrain refugees' food security, which in turn will affect their diets.

When compared to their home country, one of the GARs from Iraq echoed the sentiment that was shared by one other GAR who believed that there was a greater variety of food in Canada citing the fact there are different cheeses, different types of bread, and even different types of milk with different fat content. Aside from local grocery stores, there are international supermarkets, as well as ethnic grocery stores that carry specialty foods. There were two GARs and a PSR who specified various ethnic store locations in Hamilton, including stores that sold halal meat. Muslim refugees (n=9) who adhere to

religious proscriptions can only consume meat prepared a certain way like halal meat. Not only do ethnic grocery stores sell halal meat, but a GAR from Iraq mentioned that local grocery stores dedicated a small section to halal meat. However, unlike many of the refugees, a refugee claimant from Colombia concluded that there are more markets and a greater variety of foods in Colombia compared to Canada.

While a number of refugees were pleased about the wide selection of food available in Hamilton, a few mentioned that food in Canada is expensive with the exception of two refugee claimants who felt that the price of food was affordable when they took their income into consideration. As a result of the high food prices, one refugee claimant had to make changes to her diet:

Interpreter: She did the comparison with the chicken; she says she cannot afford it, to eat fish. [She is] from Colombia, she cannot afford it, to eat fish, because fish is too expensive, so what she eats is chicken.

On the other hand, unlike the grocery stores in Iraq, a GAR found that the grocery stores in Canada would distribute flyers to advertise the items that they have on sale and offer discounts on food items, which helps facilitate a healthier diet especially among refugees who may be restricted by their income to purchase the food they need.

Moreover, there were a number of refugees (n=5) who felt the quality of food in Canada was poorer than in their home country. The concerns that were raised include: the chemicals in imported foods, Genetically Modified Organisms (GMO) foods, foods that are not locally produced, foods that are processed, foods with higher fat content, and foods with poor appearance (e.g. colour). Although the food options increased in Hamilton, several (n=7) were still nostalgic about the food from their home country. For

example, one PSR expressed her sentiments towards the green peppers from Iraq, which she felt were softer, healthier, and tastier, compared to the green peppers in Canada that gave her heartburn:

So I miss the green pepper like the usual ones that we used to eat it. [...] It is smaller than the ones that we have here. [...] And it's softer. [...] You can just chew it like this. This one is... I think when I eat that, this one I feel like heartburn - I feel. But that one...that one like from back home, it's I think it's more healthy and tasty. And there's a lot of things like this one but I'm talking about specifically about green peppers.

Unlike most refugees, one of the participants who came to Canada as a refugee claimant from Colombia believed that the food in Canada was healthier than the food in her home country, due to the high quality Canadian soil in which foods are grown.

In addition to commercial grocery stores, community organizations in Hamilton play a key role in the provision of food and information in influencing refugees' access to healthy and satisfying foods, which will ultimately affect their diets. For many GAR families, the staff members at a service provider organization that offers services as part of the RAP were usually their first point of contact upon arrival. Several GARs from Somalia (n=2) mentioned that they learned where to shop, how to prepare a variety of dishes including Canadian dishes, and how to manage money from the staff members at a service provider organization that is part of the RAP. However, while a GAR from Iraq received an orientation from the Canadian embassy, a PSR from Iraq specifically noted that she did not receive an orientation from the Canadian embassy prior to coming to Canada. Although that was the case, the PSR mentioned that she was able to learn how to check the ingredients and expiry dates on the food labels when she came to Canada from

a 22-day course for newcomers. In addition, both PSRs and GARs acknowledged that St. Joseph IWC was another resource for food and nutrition information.

Although there is information available, there are some disagreements among refugees as to the best way to receive food and nutrition information from community organizations. A PSR suggested that in addition to the information sessions, information can be disseminated in the form of a handout so that people can go over the information at a time that is convenient for them. Two of the GARs in the focus group, however, disagreed with this idea because they indicated that they would not read the information.

In addition to information, community organizations like food banks do what they can to provide food to those in need, including refugees. Food banks can be considered a facilitator in this respect. Six of the twelve refugees stated that food banks enable them to obtain the food that they may not have otherwise been able to access, especially when they first arrived in Hamilton. For instance, when a PSR first arrived, she used the food bank on a regular basis because her partner and she did not have any income for more than a year until she applied for Ontario Works. Overtime she relied less on food banks until recently she returned to the food bank with a friend because the food bank provided her with a good “shopping amount” of food to help meet her shopping needs. Moreover, one of the GARs commented that not only did she find a variety of quality food that was not expired, but the staff members at the food bank were both sensitive and accommodating to their diet needs:

For the Muslims, [...] especially when they [see us] wearing hijabs, they [ask], “Do you need halal meat?” [Also] even for the pizzas, [sometimes, there’s] pepperoni. [They’ll] say, “don’t take it, [it] contains pepperoni” [because] I don’t know so they told us, “don’t”.

Unfortunately, food banks may not be able to necessarily meet the needs of everyone as some of the foods offered may not be appropriate for refugees (n=3) with certain health conditions or religious beliefs. There was a PSR and a refugee claimant from Colombia who found that the food they brought home from the food banks were expired, which discouraged the refugee claimant from Colombia from continuing to use food banks. Moreover, two GARs from different focus groups mentioned that the reason they did not access emergency food services was because they did not know that they could go to food banks for food if needed. One of the two GARs also mentioned that in addition to not knowing that she was able to access food banks, she also did not have access to a vehicle and she was already receiving help from the government during the first year.

Finally, the geographic structure of the community can also affect food security. Although none of the refugees said that they owned a car when they first arrived in Canada, refugees had mixed opinions regarding the physical access of foods. While one of the GARs from Somalia felt that it was difficult to travel to and from her home without a vehicle, another GAR from Iraq, who did not have access to a car for five years, felt it was fine. Without a vehicle, refugees resorted to alternative means of transportation such as walking and carpooling, but public transportation was the most common (n=7). Although public transportation was considered costly for one of the refugee claimants from Colombia, a GAR from Somalia noted indirectly that public transportation was a more affordable option than taking a taxi. Moreover, one of the GARs who did grocery shopping twice a week did not find it troublesome carrying her groceries on the bus.

During the winter season, however, one of the GARs from Somalia said she had difficulty manoeuvring her buggy or shopping cart through the snow. Overall, while various means of transportation do present their own barriers to food access, there were other alternative modes of transportation that enabled refugees to access the food they need and prefer.

In brief, the regulations of food prices, diversity of foods in stock, as well as the quality of foods among local grocery stores, the informal structures of community organizations, and the physical environment influence refugees' food security.

Community

The fourth level of the social-ecological model, community, refers to the norms of the community (in this case, Hamilton), which may differ from the cultural norms that refugees are familiar with. Upon resettling in Hamilton, there were community norms in Hamilton that participants had to adjust to, including cooking, shopping, food storage, and eating practices.

Many GARs had to adjust to the different food preparation practices. They felt that they had to spend more time preparing food after arriving in Canada. A GAR from Somalia felt that in Canada, she had to cook almost every hour to satisfy her children, because her children wanted different types of food to bring to school whereas in her home country, this was not the case:

Interpreter: I also think she is referring to when they are going to school and taking food, so different types of food that she has to cook. Whereas she said, back home it was different because everybody would just eat that one food that you prepared.

Besides the time allocated to cooking, what is considered to be appropriate in terms of gender roles in preparing food for the household can affect the diets of the

family, since as mentioned earlier, it is the individual who acquires and cooks for the household who generally has the greatest influence on the diet of the household. Although most of the female refugees mentioned that they were primarily responsible for preparing food for their household, there were a few female refugees who indicated that the cooking responsibilities in the household were shared with their partner, other family members, and friends. On behalf of all the GARs from Somalia, the interpreter mentioned that they agreed that it was considered normal for both partners to share the cooking responsibilities if agreed by both partners but it was not the cultural norm:

Interpreter: So in some cases if there is an agreement between husband and wife, it's normal that they both cook, whereas culturally, in general, it's not normal.

The one male GAR from Somalia felt that women would generally say that men do not cook, but for him, he cooked in Somalia and Canada when he was not working outside of the home.

Moreover, shopping practices and environments differed between their country of origin and Canada. These changes can present barriers to food security. Refugee claimants from Colombia noted that in their home country, they were able to purchase the specific amount needed for the day. This would reduce the amount of food wasted. In addition, another GAR from Somalia pointed out that the number of food shopping trips and the amount of storing done in Canada varied from the norm in their country of origin. Unlike many of their home countries, it was not necessary to shop for groceries every day since food can be stored. If there were any food leftovers, a GAR noticed that people in Somalia would encourage others to finish it whereas in Canada, the leftovers would be

stored in the fridge to avoid having foods with a shorter shelf life like fruits and vegetables go to waste:

There's a difference in terms of when you shop back home, we would shop every day for groceries. Whereas here in Canada, its every once a week or five days. And back home, if there were anything that was left over, people would have other people eat it. Whereas here, it'll be in the fridge, for example, fruits or vegetables, and then they would go bad.

Many refugees mentioned that there are cultural differences in the way that foods are consumed in their country of origin compared to Canada. Every GAR from Somalia (n=6) agreed that the practice of sharing food is more common in Somalia than it is in Canada. One of the GARs noted that Somali people often prepare a lot of food and invite neighbours for a meal, since you are unsure whether they have enough food, whereas in Canada, people seldom take the time to get to know their neighbours. The practice of food sharing is especially common during special occasions such as the two annual Islamic celebrations (Eid al-Fitr and Eid al-Adha). However, like a few of the GARs from Somalia, one of the GARs felt it was more difficult to participate in celebrations in Canada compared to their home country:

In terms of celebrations, back home you would make a lot of food because you are expecting a lot of people to come and by then, the food is done. There is no waste. Here, you make a lot of food, but it's just you eating it. I got used to it now that I don't even cook anymore sometimes.

A PSR from Iraq had to change the time she regularly consumed her meals to accommodate her work schedule. Moreover, at times, they would not be able to eat as a family since her son may work late and they cannot wait. Another eating behaviour that was discussed among refugees in the focus groups was that they would eat food from

local restaurants that was not part of their standard diet in their home country. Sometimes on weekends, one of the GAR's sons would eat at restaurants that serve foods from different countries such as Chinese food and sushi while another GAR from Iraq also noted that her children would also go out to eat with their friends on Friday after school. Moreover, both GARs (n=2) and a PSR mentioned that their family members or themselves may consume certain food from Tim Horton's as one of the GARs felt they became accustomed to Tim Horton's upon coming to Canada.

While the community level has demonstrated how the norms of the community have changed the ways that refugees were accustomed to prior to resettling in Hamilton, it is evident that both facilitators and barriers contribute to food access among refugees. The public policy level will display other dynamics that affect the factors that influence food security among refugees.

Public Policy

The public policy level of the social-ecological framework involves the policies and laws that the Government of Canada has in place that will impact refugees' access to nutritious and satisfying foods as demonstrated through the RAP, Ontario Works, nutrition labelling regulations, and CFG. Several GARs from Somalia (n=3) expressed their gratitude for the support and knowledge that they have acquired through the RAP offered at a service provider organization. Likewise, one of the GARs from Iraq noted that she was able to benefit from the orientation course that the Canadian Embassy prearranged for her prior to coming to Canada as she learned to read and understand the nutritional information on food labels. However, a PSR pointed out that since she did not

have such a course from the government before coming to Canada. After one year, some participants in the focus group were not self-sufficient and had to rely on Ontario Works as a source of income. While one of the refugees who came to Canada in 2008 gradually became less dependent on food banks when she received Ontario Works, another refugee who came to Canada 27 years ago revealed that she was still using food banks because the amount that she received from Ontario Works was only enough to cover her rent and bills. A few of the suggestions that the refugees made for improvement at the policy level revolved around income. These suggestions included increasing the income that refugees receive and subsidizing the cost of food.

Aside from offering financial assistance to enable refugees to access the food that they may otherwise not have been able to, the Government of Canada also regulates nutrition labelling. The work that Health Canada has done to help consumers make healthy and informed decisions about the food that they purchase and consume has had a positive impact on one of the GARs from Iraq:

And the beautiful thing here in Canada is the honesty. They told you that you know the real thing. They put [the] ingredients, [you] will find exactly what's in the ingredients [but] back home, [you] cannot trust them, they can even [cheat the expiry date].

Conversely, one of the GARs from Somalia did not share the same opinion. Although she took the time to evaluate the labels on the food to ensure that there were no traces of certain ingredients, there were times when she found an ingredient in her food that was not included on the nutrition label.

As mentioned in the previous chapter, Health Canada introduced the CFG to help Canadians make healthier decisions on their diet. While GARs did not mention the CFG,

the CFG seems to be effective for a PSR who found the CFG useful after receiving it from a program in Hamilton that explained the CFG to her.

To summarize, the Government of Canada's regulations leverage refugees' access to food at the policy level is elucidated through the RAP, Ontario Works, nutrition labelling regulations, and CFG. In addition to the policy suggestions aforementioned, refugees also suggest providing more education on topics such as healthy eating.

Summary

In addition to reporting the diet-related health concerns and the dietary changes experienced by refugees coming to Canada, this chapter also presents facilitators and barriers to food security that may have contributed to the dietary changes of the refugees who participated in the focus group interviews. These findings come from the perspective of participants who came to Hamilton as refugees, either as a GAR, a PSR, or a refugee claimant. The participants represent a diversity of views, originating from three different linguistic groupings and regions of the world. They also represent different points in the life course from first arriving to Canada as young families (Somalis) to middle-aged established families that have settled within the last five years (Arabic-speaking) to seniors who have been in Canada five or more years (Spanish-speaking). Though these are diverse groups, they generally have similar concerns and issues regarding acquiring food for their families – the literacy and language ability to access food and nutrition information, their ability to afford healthy and satisfying foods, the high cost of foods, the difference in the quality of food between their home country and Canada, adapting

different community norms upon resettling in a new environment, and insufficient income.

CHAPTER 6: DISCUSSION AND CONCLUSION

This chapter discusses the findings from the previous two chapters, comparing the diet-related health concerns, dietary changes, and facilitators and barriers to food security among different types of refugees from the perspectives of the study participants, to existing literature on refugee dietary change and food security. The chapter begins by acknowledging the complex relationship found among diet-related health concerns for refugees who resettle in Hamilton, Ontario. The chapter then deliberates on the utility of the social ecological model to assess how different factors within various levels of influence affect food security among refugees. The chapter also compares and assesses the key differences between the service providers' perspectives with the refugees' perspectives. Finally, the chapter acknowledges the limitations of this study, followed by recommendations for future directions.

Evaluating the Determinants of Diet-Related Health Conditions among Refugees

There were service providers and refugees who cited several health concerns that may be due to a change in diet after resettling in Hamilton. Many of the refugees stated that they had no previous awareness of such health issues before coming to Hamilton. Although refugees were not aware of certain diet-related health concerns prior to coming to Hamilton, it does not necessarily mean that the concerns were due to the changes in diet because some refugees may not have had the access to medical care in their home countries to have these health conditions diagnosed. As a result, diet-related health conditions, such as diabetes, may have been pre-existing. A literature concurs that diabetes is an untreated condition that refugees may have had prior to migrating to the

United States (Walker et al., 2014). One of the refugees also mentioned that she was diagnosed with low bone density once she resettled in Canada, a health issue that was not brought up by service providers. On the other hand, service providers mentioned additional health concerns that were not mentioned by refugees as diagnosed upon resettling in Hamilton such as parasites and thyroid issues.

There were also other health concerns that service providers and refugees expressed as diet-related, but when discussing the reason given for that issue, it was not diet-related. For instance, when asked about diet-related health concerns, both service providers and refugees mentioned vitamin D. However, service providers and refugees attributed the reasons for vitamin D deficiency to be due to darker skin or a lack of exposure to the sun rather than diet-related reasons.

Likewise, several refugees attributed other diet-related health issues to resettlement stress or old age. For example, a GAR from Iraq felt that in addition to diabetes, high blood pressure and high cholesterol were due to age. There were also two refugees who associated diabetes with stress. A refugee claimant from Colombia specifically stated that her high cholesterol and diabetes was due to the stress of learning English as opposed to a diet-related reason.

Both the literature on refugee health and the study findings demonstrate that mental health concerns are common among refugees (Fowler, 1998), and several of the participants in this study attributed their diabetes to the stress of resettlement. On the other hand, there were refugees who expressed that both high cholesterol and diabetes were due to diet-related reasons such as eating unhealthy food. Therefore, it is

challenging to disentangle dietary change from mental health issues as the causes of health concerns that arose in this study.

Assessing Facilitators and Barriers of Food Security among Refugees

Intrapersonal

The findings describe a range of barriers to food security among refugees at the intrapersonal level that are generally consistent with the refugee literature, including: low income, unemployment, illiteracy, limited Canadian cooking and food knowledge (Kiptinness & Dharod, 2011; Hadley et al., 2010; Patil et al., 2010; Patil et al., 2009; Hadley et al., 2007; Yu et al., 2007; Hadley & Sellen, 2006). However, while Hadley et al. (2010) noted that the limited knowledge of recipes can contribute to higher spending on food, this is not a barrier found in this study.

Aside from barriers, both service providers and refugees acknowledged that there are also facilitators that can improve access to food like their ability to continue to prepare their traditional meals upon resettling in Hamilton. While all six Somali GARs mentioned they are able to continue to prepare their traditional meals in Hamilton, service providers also found GARs to be resourceful individuals who are able to prepare the traditional food they are familiar with irrespective of where they are or how many resources they have.

There are also factors that the findings and the literature would label as barriers initially but over time, these barriers can be considered facilitators. Budgeting knowledge is a facilitator that is thought to improve food security with time, although both this study and several other studies recognize that refugees have to make difficult compromises to budget enough for food, rent and utilities, as well as possibly send money to their family

members in their home country (Kiptinness & Dharod, 2011; Yu et al., 2007; Hadley et al., 2007). Moreover, the principal amount of the travel loan as well as its related interest that GARs have to repay places financial stress upon GARs (Government of Canada, 2011). Although refugees admitted that they had a limited budgeting knowledge when they first arrived to Canada, both service providers and refugees were able to identify strategies that were used by refugees to manage their money that were mostly similar to approaches brought up in the literature (Hadley et al., 2007).

Interpersonal

Like the published literature, findings show that informal support networks at the interpersonal level improve refugees' access to food in a new environment (Patil et al., 2010; Patil et al., 2009). As described by the literature, the findings from the service providers' perspective demonstrate that those who arrived earlier are able to help other refugees better integrate into the community (Kiptinness & Dharod, 2011; Patil et al., 2010). However, there are studies that suggest that some refugees have less supportive communities than others due to civil wars in their home countries that make them mistrustful of their fellows from the same country (Patil et al., 2010; Patil et al., 2009). On the other hand, the findings from this study revealed that there was only positive support among members of the refugee group's community. While there is an ongoing civil war in Somalia, two service providers mentioned that Somalis share information and food among the community, and a GAR from Somalia mentioned that a Somali woman helped her purchase her food when she first came to Canada.

There are some factors that can be both barriers and facilitators as it is difficult to strictly divide these categories. Both service providers and refugees shared a similar

perception regarding how individual members of households and household dynamics can positively or negatively influence the diets of refugees. Whether it is a positive or a negative influence, it will depend on the role and the impact of key individual members of the household. Refugee participants believed that the individual(s) who take on the role of purchasing and preparing food for the household will have the most impact on the diet of the home; service providers pointed out that parents, especially mothers, have the greatest influence on the food that their child consumes, since they usually purchase and prepare the food. However, service providers noticed that there were parents who would purchase certain foods that may not necessarily be healthy for their children. While the literature supports this contention, some studies also found that mothers with children were more conscious about healthy eating and thus would aim to prepare healthy meals for their children, including using deception to make food healthier (Wieland et al., 2012; Patil et al., 2009; Patil et al., 2010). Unlike these study findings, the literature places a greater prominence on children being the driver of dietary practices, including shopping and consumption of food in the household than the parents (Patil et al., 2010).

When children in the household begin interacting with people outside of their homes more, the individual(s) with the greatest impact on the foods that are accessed by certain members of the household may potentially shift. Both service providers and refugees found that their peers play a role in the decisions of the foods that refugee children choose to consume at lunch. From a refugee's perspective, consistent with the literature, this can lead to cultural dissonance between the parent and the child (Patil et al., 2010; Patil et al., 2009). On the other hand, there are parents who will not force their

children to consume traditional food. The food consumed can either be healthy or unhealthy depending on what the individual chooses to bring for lunch based on others' acceptance of their food choices. From both perspectives, this factor can assist and preclude refugees from accessing their traditional food depending on how they are influenced by others.

Organizational

Similar to Kiptinness & Dharod's (2011) findings, service providers and most refugees, with the exception of refugee claimants, felt that cost of food, especially healthier food options, was a barrier to food security for refugees. The literature also specifies that refugees found specialty foods to be more expensive than local foods (Patil et al., 2010; Patil et al., 2009; Hadley et al., 2007; Giles et al., 1996).

Findings from this and other studies recognize the positive contributions of formal community organizations (Wieland et al., 2012; Patil et al., 2010; Hadley et al., 2010). Although in this study, it was found that community organizations generally assist refugees' food security, there were service providers and refugees who pointed out that there were barriers to accessing the services that community organizations provide, since certain services may be offered for a limited period of time, or may not be available, effective or appropriate for refugees. For example, service providers found that delivering information to a class with different language skills is not only challenging for the interpreter, but it may also be ineffective for the participants, thus one service provider suggested having more classes delivered in one language instead. Likewise, Wieland et al. (2012) believe that groups should be separated linguistically when delivering information. In addition, like the literature, the service providers recognized that while the

staff members of certain organizations can verbally communicate food and nutrition information to refugees, their limited food and nutrition knowledge may influence the dietary decisions of refugees (Patil et al., 2010). For example, two service providers in this study mentioned that additional training in nutritional knowledge for staff members or volunteers would strengthen the services delivered by community organizations. Moreover, although it was not discussed in the literature, service providers recognized the importance of faith-based organizations as facilitators in assisting refugees access the food they need, especially during certain religious-based celebrations.

There are also certain factors that can be either a barrier or a facilitator at the organizational level. For example, many refugee and service provider participants remarked on the increased variety of food available in Hamilton, in comparison to the countries from which refugees originated. Both service providers and refugees in this study were consistent with Kiptinness and Dharod (2011) in acknowledging there is a wide variety of food options available, both in terms of the number of existing ethnic stores, international markets, and greater food selections in grocery stores, which can help facilitate food security among refugees. However, service providers also pointed out that some of these increased options can be considered a barrier to food security and nutritional health, since the expansion in food selection may also include food that may not necessarily be healthy such as processed and fast foods.

Another example that service providers and refugees identified as a factor that can be a facilitator and a barrier is the geographic location at which the refugee resides. This factor will depend on the built-environment of the location they settle in. Although

refugees noted that none of them had a car when they first arrived to Hamilton, some refugees remarked that they were fine without a vehicle, while others found it more challenging to reach their destinations. Regardless of whether they had a car or not, refugee participants noted that they resorted to alternative means of transportation such as walking, carpooling, public transportation as also indicated in the literature (Kiptinness & Dharod, 2011; Patil et al., 2010). While the findings show that public transportation was the most common form of transportation with few shortcomings perceived other than the cost, the literature highlights many concerns associated with the public transportation system in cities in the United States that were not mentioned in this study (Patil et al., 2010; Patil et al., 2009). Moreover, although Patil et al. (2010) indicate that refugees who walk or take the bus find that the amount of food purchased was limited by the amount they were able to carry home, one of the GARs said she uses a buggy or shopping cart and did not express any concerns about carrying her groceries on the bus; another GAR, however, felt that it was a bit more challenging to move through the snow during the winter. Service providers noticed that refugees who were able to find a home near grocery stores as well as a supportive community were less likely to require access to a vehicle, demonstrating that the neighbourhood in which a refugee settles can be perceived as a facilitator or a barrier, respectively.

Community

At the community level, the findings indicate that refugees have adopted various community norms such as eating more frequently outside of the home, adopting new shopping practices, and changing gender roles regarding household responsibilities, which can act as both facilitators and barriers to their level of food security depending on

how they adapt to the norms of the community. For example, like in the literature, service providers and refugees noted that refugees had to adapt to different shopping practices (Kiptinness & Dharod, 2011; Patil et al., 2010). In comparison to their home country, refugees found fewer farmers' markets in Hamilton, which may explain why service providers noticed that refugees perceived supermarkets to be intimidating. As a result, this may make it more challenging for refugees to find the food they need. Moreover, service providers mentioned that the exposure to pre-packaged food items in Canada can act as a barrier to food security, as these food options are not necessarily the healthiest options in supermarkets. Another barrier identified by refugees in their new shopping environment is that, unlike in their home country, they must purchase a specified amount of food that is greater than what is required for the day. On the other hand, refugees also brought up facilitators that improve access to food as refugees adjust to the new shopping environment, which includes the distribution of flyers that inform refugees about items on sale and less shopping trips needed when food is stored properly.

Public Policy

Both service providers and refugees acknowledge that Ontario Works and the RAP offered by the provincial and federal governments, respectively, have improved the financial situation of the refugees and/or the delivery of important food and nutrition information to orient refugees to the Canadian food system at the public policy level. However, many of the participants, both service providers and refugees, emphasized that refugees' household income was insufficient to obtain enough nutritious food.

Moreover, both service providers and refugees were consistent with the literature in recognizing that although the government offers integration support to certain resettled refugees even before coming to Canada, refugee claimants are unable to access many federal settlement services (Yu et al., 2007). While governments aim to facilitate food security for the population as a whole, there are some areas of improvement needed to strengthen food security of refugees, in particular more assistance with helping refugees find gainful employment and the need to increase social assistance.

Role of the Social Ecological Model

Overall, the findings largely support much of the literature that describes how various factors can affect food security among refugees. The social ecological model was demonstrated to be useful for the analysis of this study. The analysis shows that different factors identified at different levels of influence do not only contribute to dietary behaviours that lead to food (in)security, but the different levels of influence are interrelated. The interrelationship of the various levels of the social ecological model does not only identify how factors influence refugees in general, but it has revealed that certain refugee statuses are more vulnerable than others and at more than one level of the model. Like one of the service providers, Yu et al. (2007) note that although at the public policy level, the government offers more integration support to some resettled refugees more so than others. As a result, refugee claimants are unable to access many federally and provincially funded settlement services offered at the organizational level. Therefore, informal support networks at the interpersonal level as well as locally funded organizations at the organizational level play a crucial role in meeting the needs of refugee claimants.

It is important to recognize that there are various key players at different levels of influence. Although certain individuals or groups are able to initiate change on one level, they may not be able to do so at another level. Conversely, the actions of certain individuals and groups at one level will affect those at other levels of influence. For instance, at the organizational level, community organizations deliver services that provide both food and information to improve food security among refugees. However, due to factors found at the intrapersonal level, refugees may not, for example, have the income for transportation to access these services, or they may not have the informal support network at the interpersonal level to learn about these services. As a result, the support of multiple collaborators is essential to achieving an effective intervention.

Service Providers' versus Refugee Participants' Perspectives

While the two perspectives were generally similar, differences were also found. For example, corresponding to the literature, many refugees did not express a need for nutrition knowledge, which enables them to know what food to access in order to achieve what is believed to be a healthier diet (Willis & Nkwocha, 2006). However, the service providers in this study felt refugees lack Canadian nutrition knowledge. For instance, one of the service providers mentioned that a refugee claimant perceived her child to be healthy as the child was gaining weight. Patil et al. (2010) described a study with a similar perception among Hmong parent and grandparent refugees who experienced the threat of food deficit and would therefore overfeed their children sometimes.

While refugees from the focus groups did not discuss the relationship between food security and refugees who came from camps, a number of service providers

highlight the vulnerability of refugees who come from refugee camps. There were a few service providers who felt that GARs who come from camps may have had a monotonous diet that lacks a sufficient amount of nutrients. A few literature sources also mentioned that micronutrient deficiency is more common among refugees who come from camps (Giles et al., 1996; Keen, 1992). As a result, some service providers believed that refugees' diets will improve upon resettling in Hamilton with the financial assistance that they receive from the government, which will allow them to purchase a greater variety of food. However, there were also several service providers who expressed their concerns regarding the decline in the quality of the diet of refugees who come from camps, since they may be more likely to take up unhealthy practices, require aid in improving their cooking knowledge due to a lack of familiarity with kitchen appliances, and have poorer media literacy. As a result, although there were a few service providers who felt that the diet of refugees from camps would improve, there were a number of barriers both prior to and after resettling in Hamilton that make refugees who come from refugee camps more vulnerable compared to other refugees.

One of the barriers that was brought up by service providers but not refugees in this study was the different perception of what an appropriate lunch consists of. It can be a challenge for refugees to know what to pack for lunch either for themselves or their children. This does not only discourage refugees from bringing the food that they are familiar with but since they prefer their own food, the literature has noted that there are children who will skip lunch (Patil et al., 2010). This finding is consistent with one of the observations made by a service provider, who noted that there are adult refugee claimants

who would rather go home after their ESL classes to eat a meal than to bring a sandwich for lunch. However, some of the changes involving lunch preparation does not only affect them but those around them such as bringing peanuts/nuts for lunch, since allergies are more prevalent in Canada. One of the reasons that lunch preparation was not perceived as much of an issue among refugee participants may be because six of the parents who participated in this study had adult children.

Although service providers were able to identify several key aspects that were integral to consider in supporting or hindering food security that were not mentioned by refugees, it is also important to ensure that the voices of refugees are taken into account, as there were certain barriers that refugees identified that were not talked about by service providers. Refugees mentioned that upon resettling in Hamilton, they spend more time cooking, which increased their domestic labour considerably. They also had to change the time that they were used to eating at in order to accommodate their work schedules, and when celebrating special occasions, they noticed that sharing food among family members, friends and neighbours was a custom that was not as heavily emphasized in Canada. Some refugees also felt that the quality of food in Canada was poorer and expressed nostalgia and sadness about the loss of food from their home country.

Moreover, while both service providers and refugees mentioned that the CFG provided food and nutrition information, only one PSR mentioned that it was useful. Most of the service providers mentioned that they either have to modify the CFG or the use of the CFG to make it more appropriate and beneficial for refugees. The limited number of refugees who commented on the CFG may be due to the fact that it is not used by most

refugees. A potential reason may be because they are not aware of such a resource, or as some refugees mentioned during the interview, they prefer information delivered verbally over text-based information.

Although both refugees and service providers talked about the services offered in the community, the service providers were aware of many more food and nutrition services offered by community organizations in Hamilton than the refugees. They were also able to discuss the various experiential programs with a significantly greater level of detail. Although one PSR briefly mentioned that cooking classes were hard to find, most of the refugees who were interviewed did not even comment on experiential programs like community kitchens, community gardens, and shopping tours. As well, several of the refugees did not know that they were eligible to use food banks in Hamilton. There are multiple possibilities for the lack of awareness of these programs in Hamilton. Apart from the fact that some refugees did not know they were eligible to use food banks, and some said they were unhappy with the quality of food in the food banks, other reasons for not using food- and nutrition-related services in Hamilton were not discussed by refugees. Some of the service providers, however, mentioned the need for more culturally and linguistically specific programs, and visual programming to cater more to refugees' needs. Since most of the service providers had not come to Canada as refugees themselves, they may not have realized that certain factors can be a barrier among refugees. On the other hand, few refugees were represented in this study, but service providers offer their services to numerous refugees, thus they have a diverse knowledge of the different circumstances that refugees experience. As a result, it is important to

examine the facilitators and barriers among refugees from both perspectives to implement the most effective and appropriate interventions to address food security among refugees.

Limitations

While this study has led to interesting findings about food insecurity, dietary change, and nutritional health among refugees in Hamilton, Ontario, it is also important to acknowledge there were a number of limitations in this study.

Two of the three focus groups were comprised of both immigrants and refugees. Focus group interviews use the interaction of group members to produce information (Pope and Mays, 1995). As a result, although some of the facilitators and barriers that were brought up by immigrants may have also affected refugee participants, the refugee participants may not have mentioned it again since it was already said. There were several facilitators and barriers that were mentioned by immigrants who participated in the focus group that were consistent with the literature regarding factors that influence food security among refugees. If a point was not noted specifically by a refugee participant, then it was not included in this study that pertains specifically to refugees. Therefore, certain factors that influenced the food security of a refugee may have been left out of this study. Similarly, there was information that was mentioned by service providers who work with either the general population or newcomers that were excluded from the study if the service providers did not clearly indicate that the information applied to refugees.

Also, since two of the focus groups were mostly translated and one focus group was done partly in English and partly in Arabic, the information provided by the participants may have lost some cultural connotations and meanings when the

information was translated into English. There may be words or phrases that exist in one language but may be difficult to express in another language. As well, since the interpreter was translating as the focus group interview was conducted, the interpreter may have left out some details or important information during her summaries of what refugee participants were stating in their own language.

In addition, although there were a few service providers who mentioned some differences among how facilitators and barriers affected men and women differently, there was only one male refugee participant in one of the focus group interviews. As a result, with one male and eleven female participants, it is more challenging to accurately assess the extent of how certain facilitators and barriers may impact males differently from females from the perspectives of refugees.

Though differences in the experiences of different types of refugees – GARs, PSRs, and refugee claimants – were mentioned by services providers, it was difficult to get perspectives from those different types of refugees themselves since there were eight GARs, three refugee claimants and only one PSR in the study. Consequently, when comparing the facilitators and barriers that impact refugees' food security from the perspectives of different types of refugees, the perspective from GARs, in particular those from Somalia, dominated the findings.

In addition, the service providers made various comparisons in terms of how certain facilitators and barriers would have impacted refugees who came from camps differently from those who did not. However, since this study did not ask refugees to reveal whether they lived in camps or not prior to coming to Canada, it was difficult to

determine if the service providers' comparisons were parallel to refugees who came from camps in comparison to the refugees who did not come from camps. If the needs of refugees who come from camps versus those who do not are different from one another, then it is important that refugees who lived in camps prior to coming to Canada be clarified in future studies.

Finally, since the data for this study were collected from service providers and refugees in Hamilton only, it may be a challenge to apply certain findings outside the context of this study setting such as in bigger cities such as Toronto, or out-of-province.

Suggestions for Future Directions

While there are a number of diet-related health concerns described by refugees in this study, further research is needed to investigate which diet-related issues are attributed to resettling in Hamilton or already existed prior to resettling in Hamilton. There is also room for future research to explore whether some health conditions, such as weight change or diabetes, are strictly diet-related or complicated by other issues such as stress-related mental health conditions.

It would be beneficial in the future to study more types of refugees, including males as well as PSRs and refugee claimants, to have a more balanced diversity represented so that they also have an equal voice. Since service providers also identified significant differences between refugees who came from camps and those who did not, it would be good to focus more on these classes of refugees for future research.

The study demonstrates that there are numerous facilitators and barriers that contribute to the food security of refugees in Hamilton, Ontario. The use of a social

ecological model that requires a multi-level analysis demonstrates that the issue of food security among refugees encompasses complex and dynamic interactions at different levels of influence. By recognizing the complex interrelated relationships between different facilitators and barriers at different levels of influence, more effective interventions that take several levels of influence into account can be developed. Using a collaborative, multi-level intervention approach optimizes the impact of an intervention needed to effectively promote food security among refugees in the future.

At the policy level, for example, one intervention might be to consider that there are multiple classes of refugees that receive different levels of support and services. At the moment, the federal government of Canada only provides funding to integration services for newcomers who are permanent residents of Canada or initially approved for permanent residence or protected persons based on the description outlined in Section 95 of the IRPA (Yu et al., 2007). As a result, refugee claimants are vulnerable to food insecurity, as they do not have full rights to food upon resettling in Canada. Therefore, it is important to find ways to support refugee claimants in their rights to food security.

Conclusion

In conclusion, there is a complex relationship between dietary changes and health concerns among refugees who resettle in Hamilton, Ontario. It is unclear exactly if or how the changes in their diets upon resettlement contribute to the diet-related health concerns identified by service providers and refugees. This is because refugees come from diverse backgrounds and some may have had diet-related health conditions like diabetes before coming to Canada, but it was not until they arrived in Canada where they

were diagnosed with the condition that they realized they had it. As well, some conditions that were considered to be diet-related, like weight change and diabetes, were also identified as being affected by stress-related mental health issues associated with resettling in Hamilton. Moreover, environmental factors such as the lack of sun exposure, can also contribute to concerns such as vitamin D deficiency. That is not to say, then, that dietary change is not important to consider, but rather that its investigation must be contextualized in the wider context of resettlement.

Using triangulation as a method to corroborate the results with two perspectives as well as applying a social ecological approach to examine the multiple levels of influence, the findings demonstrate that there are different factors within different levels of influence that have a greater impact on food security than others. Factors at various levels of influence are interrelated; all must be taken into account when examining food security among refugees.

Moreover, by examining both service providers' and refugees' perspectives about dietary change, health concerns, as well as barriers to and facilitators of food security, this thesis presented a holistic portrayal of the food security issues among this group of refugees. Service providers identified issues that some refugee participants were not aware of and refugee participants were able to fill in gaps in knowledge that some service providers were not aware of. By investigating both the perspectives of service providers and refugees in response to the study objectives, the study was able to develop a stronger awareness of the factors that contribute to the vulnerability of refugees that was overlooked by one perspective but was fortunately captured by another. Conversely, there

were also factors that both perspectives agreed upon, thus some findings were triangulated and strengthened as a result. While there are a few studies that assess various issues related to food security among refugees in the United States from several perspectives, food security issues among refugees in the Canadian context from both perspectives is understudied. The literature search found that most North American research in this area is focused mostly on United States' population (Patil et al., 2010; Hadley et al., 2010; Patil et al., 2009; Hadley & Sellen, 2006).

By focusing on refugees, instead of newcomers as a whole, the differences among refugee classes was more clearly understood. This study found that some types of refugees, such as refugees who come from refugee camps and refugee claimants, may be more vulnerable to food insecurity upon resettlement than others. As a result, the study helps to recognize the potential need for policy change and the need for services that cater to specific types of refugees to ensure that the right to food for these vulnerable populations is taken into consideration.

While there are limitations to this study, the findings of this study provide a foundation for future research to explore these limitations, as well as explore new areas. The dynamic and complex interactions between various factors within the social ecological model can impact food security among refugees at different levels of influence. As a result, multiple levels of influence need to be taken into consideration for designing holistic approaches to address food insecurity. Moreover, different stakeholders need to work together to effectively streamline the resources to strengthen food security among refugees. This will help maximize the impact of future interventions. In 1969,

Canada signed the Refugee Convention (Canadian Council for Refugees, n.d). As a result, Canada committed to a humanitarian obligation and legal duty to protect refugees internationally, which includes the right to food.

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APPENDIX 1: INTERVIEW GUIDE FOR SERVICE PROVIDERS

1. What are the major areas of concern for immigrants in terms of getting food and eating nutritious and satisfying food?

Possible prompts: barriers to access, e.g. transportation to food sources, or lack of availability of preferred foods; time to cook due to working schedules; pressure from children to eat Canadian types of foods; pesticides or lack of fresh foods available.

2. Do you think immigrants' diets change for the better or worse when they come to Canada?
3. Does it change over time?
4. What are the main health concerns for immigrants related to nutrition?
5. Do immigrants voice concerns about food insecurity? Do you have a sense of whether immigrants are using emergency food services or other food/nutrition services provided by the City of Hamilton?
6. Do you have a sense of where immigrants obtain the bulk of their food, e.g. stores, family/friends, emergency food services, etc?
7. Does your agency provide any services related to food, diet, nutrition-related matters?
 - a. If so, are they well received and do you think they're effective?
8. Can you think of any programs or services for immigrants related to diet/nutrition that are not offered that should be?
9. Are there certain cultural groups of immigrants or age/socio-demographic groups that you think are more at risk for unhealthy eating that we should focus on in this research?

For service providers who deliver nutrition education to immigrants:

1. What are the main educational needs of immigrants?
2. What knowledge do they bring from their home countries?
3. What tools do you use to teach about nutrition?
4. Do you use Canada's Food Guide (CFG) in your teaching? Do you find the CFG useful? How would you improve the CFG for teaching immigrants about nutrition?
5. What services do you provide in your educational activities?, e.g. community kitchens, cooking classes, shopping instruction.

APPENDIX 2: SOCIO-DEMOGRAPHIC QUESTIONNAIRE FOR FOCUS GROUP PARTICIPANTS

Please answer the questions below. Feel free to skip any questions you do not feel comfortable answering. **We will keep this information private and confidential.** Please do not write your name on this form.

Code #: e.g. 01 (This number will be on the participant's name tag; name tags will be collected at the end of the focus group and a code list will be created).

Age: _____

Postal code in Hamilton: _____

Are you married, or living common-law? ☐ Yes
☐ No

Do you have children? ☐ Yes
☐ No

If yes, how many children do you have? _____

How old are your children? _____

What country were you born in? _____

What year did you move to Canada? _____

Are you currently employed? ☐ Yes
☐ No
☐ Maternity leave

Choose (circle) the response that best describes your level of education:

- Did not finish high school
- Finished high school, but no college or university
- Some college or university

- College diploma or university degree

Choose (circle) the response that best describes your household's annual income:

- Less than \$20,000
- \$20,000 - \$39,000
- \$40,000 - \$79,000
- More than \$80,000

What is your immigrant status (please check one that applies)?

Skilled

Family reunification

Refugee

Other (if you did not check one of the boxes above, please explain)

APPENDIX 3: FOCUS GROUP DISCUSSION GUIDE

Family members and food:

Who in your family is responsible for getting food and cooking?

Who are the members of the family who influence getting food and cooking?

How has that changed since moving from your home country to Canada? (probe for changes in family roles)

Food Sources and Shopping

Where do you get your food? Where do you prefer to do most of your shopping?

What are the barriers to getting food (how easy is it to get the food that you need)?

What helps you to get food?

Do you have difficulty buying the kinds of food you want to buy? (probe for transportation challenges, financial difficulties, locating preferred foods)

What are the differences between shopping in your home country and shopping in Canada?

Have you ever had a shopping tour or lesson in Canada? Was it helpful? If not, do you think it would be helpful for you to have shopping tours in Hamilton?

Who is the best person/service to deliver information about shopping?

Household Income issues:

How do you budget for food? (probe whether they have enough money)

Do you think getting food in Canada is challenging?

Do you find food expensive in Canada?

Food banks:

Why do you think some newcomers use food banks? (probe: Are food banks something newcomers use once in a while or regularly?)

What do newcomers think of food bank food?

How do you think food banks could improve their services for newcomers?

Canadian food:

What comes to mind when you think about Canadian food?

How do you feel about the quality of food in Canada?

Food and identity:

What does your traditional food mean to you?

How accepting are others of the food you and your family eats?

Are you able to eat the way you want to in Canada? (probes: time, access to food, acceptance, income)

Community:

Where do you usually eat your meals? And with whom?

Are there times when you eat with others from your community?

What does eating together with others at festivals or community events mean to you?

Has this changed since you've moved to Canada?

Knowledge/education:

What do you think a healthy diet is?

What types of things did you need to learn when you first came to Canada in order to prepare and get food for your family?

What things do you still need to learn?

When you came to Canada, where did you get information about where to buy food and how to prepare it? Has that changed over time since you've been in Canada?

Do you feel that there are enough sources of information available for you to learn about healthy eating? If not, what would be the best way for you to learn this information?

Health Issues:

What are the major health concerns for newcomers related to diet and nutrition?

Do you think these problems develop before or after newcomers come to Canada?

Do you think being in Canada places newcomers at higher or lower risk for diet-related health issues?

Do you think there are enough services available that address nutritional issues?

Services/nutrition education:

Are you aware of the nutrition/diet-related services that are available in Hamilton?

If so, are there enough services available to help you with your nutrition and diet related needs? If not, what kinds of services do you think should be available to help you with these issues?

Do you or have you in the past ever used any nutrition/diet-related services? (e.g. community/cooking kitchens, nutrition classes/info sessions, dietician, diabetes groups, community gardens)

If not, were there any barriers that prevented you from using these services?

If you did, did you find them useful? Were they convenient to attend?

Why did you find the services useful? If not, what can be done to improve them? (probe for nutrition education and Canada's Food Guide)

What services would help you with nutrition/diet-related health concerns?

What services might help you prevent any of these diseases in the future?

What services would help your children?

Do you feel that you can comfortably voice your concerns about food and nutrition to the service providers? Do service providers respond to your needs?

Policy:

What could the government do for you to help you eat healthier?

Dietary change:

In general, do you think diets change over time in Canada for better or worse?

Is your diet better or worse compared to when you were in your home country Canada?

Has that changed over time since you've been in Canada?

Is that different for different members of your family?

If yes, what has caused your diet to change?