

## **Introduction**

The aim of this project is to examine and address the issue of food insecurity among senior Afghan immigrants in the Burnaby Edmonds neighborhood, through the identification of low cost, accessible, culturally appropriate food retailers within the community.

In recent years, the city of Burnaby has seen a considerable growth of 10% in population between 2006 and 2011 (Statistics Canada, 2011), and over 50% of Burnaby residents were identified as immigrants (Statistics Canada, 2011). It is no exaggeration to say that Burnaby is a city defined by its diversity and multiculturalism. However, this raises concerns for the prevalence of food insecurity among immigrants (Sriram & Tarasuk, 2016).

This issue is particularly prominent within the Edmonds neighbourhood in Burnaby, where immigrants comprise of 59% of the population (City of Burnaby, 2006). Among them, senior immigrants are especially at risk of experiencing food insecurity, possibly due to lack of English skills, limitations in transportation, and being on a fixed low income, just to name a few.

The project is driven by Immigrant Services Society of BC (ISS of BC), which is a non-profit organization that is committed to providing help to immigrants and refugees with their settlement, training and integration needs in Canada, and they do so by providing language training programs, financial management support, community capacity initiatives and culturally specific mental health support through collaboration with the government, health authorities, and community groups.

## **Significance**

Affordability and cultural appropriateness are important aspects which are emphasized in this project. Affordability is closely related to food security. Most food insecurity problems originate from the lack of financial means to purchase nutritious food and in sufficient amounts, which causes increased risk for lower nutrients intake, poorer health status, behavioral problems, and suicide tendencies in children and teens (Gundersen & Ziliak, 2015; Vozoris & Tarasuk, 2003).

Other than low income, cultural food preferences and limited knowledge on accessing food resources and services around the community also contribute to food insecurity among immigrants (Vahabi & Damba, 2013). Not all of the immigrants can accept and consume foods from their new environment; many prefer to consume their ethnic foods. However, they may have difficulties in finding and acquiring culturally-appropriate and affordable ingredients to make such foods (Vahabi & Damba, 2013).

This project focuses on Afghan immigrants, especially seniors, living in Edmonds neighborhood in Burnaby. Most of them are supported by Old Age Security (OAS), thus

they have a fixed income; which is not enough for their daily life (PHSA, 2007). Some of senior Afghan immigrants can only eat twice per day, thus falling into the state of food insecurity. Providing them with information about affordable, culturally appropriate, and easily accessible foods and food retailers will, hopefully, help them to become food secure.

## Objectives

- To find and identify retailers that sell low-cost and halal products in the Burnaby Edmonds neighbourhood
- To prepare a recipe book and asset map for senior afghan immigrants

## Inquiry Questions

- Where can low cost and culturally appropriate food products be found in the Burnaby Edmonds neighborhood?
- How to record the data and how to analyze the prices of ingredients that obtained from each retailer ?

## Methods

Through online search, experiences of living in the neighbourhood and word of mouth, seven supermarkets and individual grocery stores in the Burnaby Edmonds neighbourhood are identified. Visits to each store were conducted, during which the relative prices of the items in the store were recorded, as well as the variety and general freshness of the foods sold. Transportation information were later gathered by searching for bus stops and skytrain stations around each store on Google Maps. All data collected were summarized into table format so that comparisons could be made between different stores. A ranking of the stores based on variety, freshness, cost and ease of access was developed. The stores that ranked higher in those categories are recommended more to the Afghan seniors.

As we do not have the consent from the store owners, the name of the stores will not be shown in the results and will be replaced according to the type of store they are categorized as, as described in the result.

## Results

### A. Identification of low-cost, culturally appropriate food

The price information and qualitative observations of each of the stores are summarized in the following two tables.

**Table 1. Overall comparison of freshness, general variety and general price level between seven stores**

Store	Description	Freshness <sup>a</sup>	General price level <sup>b</sup>	General Variety <sup>c</sup>
Supermarket 1	Chain hypermarket, medium price level	++++	\$\$\$	++++
Supermarket 2	Chain hypermarket, medium-high price level	++++	\$\$\$\$	++++
Individual grocery 1		++++	\$\$\$\$	+++
Individual grocery 2	General market	+++	\$\$	+
Individual grocery 3	Featuring fruits and vegetables	+++	\$\$	+++
Individual grocery 4	No full time staff except owner	++	\$\$\$	++
Individual grocery 5	Featuring halal meat	++++	\$\$\$	+

<sup>a,b</sup>Each store is assigned a maximum of four points based on the criteria listed.

<sup>c</sup> refers to overall variety of all food categories, however, there are some stores featuring specific food category and there is a high variety of item within that food category, as described in table 2

**Table 2. Variety of each food category**

	Staple	Meat	Spices	Vegetables	Beans, lentils
Supermarket 1	+++	+++ within "halal section"	+++	+++	++
Supermarket 2	++	N/A	++	+++	+++
Individual grocery 1	++	N/A	++++	N/A	++

<b>Individual grocery 2</b>	+++	N/A	++	+++	++
<b>Individual grocery 3</b>	N/A	N/A	N/A	++++	N/A
<b>Individual grocery 4</b>	+++	N/A	++	+++	++
<b>Individual grocery 5</b>	N/A	++++	N/A	N/A	N/A

Each store is assigned a maximum of four points based on the types of food available.

Generally, chain supermarkets (Supermarket 1 and 2) possess foods that are the highest in terms of freshness and variety (see Table 1), with varying prices. The freshness and price level of individual groceries vary a lot among different stores. When it comes to variety, one common finding is that generally all of them possess less variety as compared to chain supermarkets. Despite this, one point worth highlighting is that although supermarkets have all food categories, there is less variety within each category. For example, there are very few types of meat in the “halal section” in Supermarket 1, and there is no halal meat available in Supermarket 2. By contrast, some individual groceries featuring specific food categories (Individual Grocery 3 and 5) have much more variety in the different types of meat and vegetables offered.

## **B. Recipe book**

The recipe book has been made in both English and Dari. It has about 110 pages, including table of contents and an asset map that is attached at the end. We use similar template and font size 12 for each recipe. The pictures in the recipes are either download from online or copied and pasted from the original Afghan recipes.

## **Discussion**

As mentioned in significance section, affordability is an important consideration because those with low income and often poor housing infrastructures usually have a hard time adapting to the local food system (Miewald and Aleck, 2013). Our findings show that in the supermarkets, the freshest and the widest variety of products are available, but sometimes the price of those products are also the highest among the three types of stores. This indicates that supermarkets are not the best place to go for affordable food. By comparison, the price varies among different individual groceries, therefore, Individual grocery 3 and 5 are comparatively better places for affordable vegetables and meat, respectively.

Another important consideration is being culturally appropriate, which is not only consistent with the dietary habit of immigrants, but also symbolizes their identity, and promote a sense of belonging (Weeks, 1990). The analysis of our data shows that there are several different individual grocery stores and large supermarkets that sell halal food (eg. Supermarket 1,

Individual grocery 1 and 5), therefore, those are places to go with regards to ethnic considerations.

The results indicate that it is difficult to conclude that whether these individual stores meet all of the requirements of low-cost, fresh, and culturally-appropriate foods. Therefore, together with considerations of the description in results, we would like to recommend going to chain supermarket when a large variety of food is needed, say, for cooking a large family dinner, or when one just newly arrived in this area or return from other places. Other kinds of stores, especially those featuring a specific food category, are for supplementation. By comparison, for regular shopping on daily basis, markets and individual groceries are recommended.

In light of the results, there are still some limitations of our methods. The main limitation is the difficulty in statistical analysis of the data due to variations in the price of certain items from store to store and from brand to brand. Because of these individual differences, it is very difficult to determine which stores have lower cost in general. This situation is made even more difficult when the freshness, variety of the products, and accessibility are considered. One method to overcome this limitation is to make different recommendations based on the different food categories. Also, we recognize that our search is by no means exhaustive and there could be stores that we've missed that might affect the results of our analysis.

## **Conclusion**

Through this project, we have discovered that there is often a trade-off between variety, cost and freshness when it comes to culturally appropriate food. Each individual store has its own strengths and limitations, therefore, recommendations are made based on specific needs and situation. However, we can not be certain that we have accurately identified the best low-cost, culturally appropriate food retailers since there are too many variables to take into consideration which impacts our results. Ideally, more interviews and communications with our community partners and seniors are needed in order to make our work fit their needs. In spite of the limitations we face, we see a great amount of value in the work we have done, as it creates a framework which could be easily adopted to create similar assessment of food assets for other cultural groups so that a more comprehensive view of all the food assets within the city could be compiled.

## **Critical Reflections**

Student1: This CBEL project allowed me to have a deeper understanding about the food insecurity and the possible ways to overcome it by working and communicating with the seniors who is suffering food insecure. During the flexible learning sessions, our group is able to investigate the food resources in Burnaby and have cooking sessions with the seniors. Throughout these activities, I was able to understand the seniors' hardship of looking for affordable and culturally-appropriate food, and the importance of the recipe book and food resources map. For example, in the second meeting with the seniors, the seniors mentioned that they hope the recipe book and the cooking session can help them to show their culture and

cuisine to other people. They think let others know their culture and cuisine has special meaning to themselves. At that moment, I realized that the recipe book is not only about to organize various recipe into a booklet, but also to provide the seniors more options of food and to give a positive effect on their mental health. In the food resource map, the quality of foods and ingredients is also included in addition to the price and variety. Thus, the seniors can have more information and are able to choose which store to purchase based on their own needs. Overall, this CBEL project taught me that finding methods to solve the food insecure problem practically is very complicate. It is necessary to learn from the community instead of just study theories in classrooms.

Student 2: Looking back on the CBEL project throughout this term, lots of valuable experience is obtained. It is my first time completing a task together a group of people under the supervision of community partners, therefore, great sense of initiation and responsibility is required. My previous experience of volunteering with community was limited to following instructions step-to-step, such as being an assistant in the kitchen or helping with weeding and harvesting in the farm. By comparison, we need to figure out feasible ways by ourselves to launch the project, such as selecting typical stores that can represent a group of stores alike, as well as deciding target items by sorting out ingredients for ethnic food, followed by coming up with criteria for the comparison between the stores. Therefore, during the whole process, great extent of creativity and enthusiasm is needed, which are definitely transferable skills that is required in the future, say, when entering the workforce. The interpersonal skills are being practiced while speaking out my thoughts to the whole group and exchanging ideas with other group members. In addition, I would like to say, for improvements, greater sense of responsibility is required since it happens sometime that we did not update our community partner with the progress, and by the end of this term, there is still much space to improve with regards to the asset map and recipe book.

Student 3: By doing CBEL project throughout this term, I have gained lots of valuable experiences. Experiences are not only from the in-class workshop with team members, but also from the collaboration with Afghan community. Having an opportunity to work with local community is quite exciting, and this opportunity provides me a better understanding of food insecurity, the term that I have always heard in the class. During the process, our group spend lots of time in looking for grocery stores that sell affordable and culturally appropriate food, therefore it leads us to realize the similar difficulties for Afghan seniors to find a good store. Meanwhile, lots of communication with Thea is required during the process in order to know seniors' requirements for the recipe book and asset map. Our group also communicate several times to figure out a best way to make recipe book and asset map, such as choosing the format, and the font size. Through the cooking session. we also had a chance to cook with seniors, and learned some Afghan cultures. In addition, beyond the course materials, I have gained extra knowledges from weekly readings and videos. Overall, I have seen my improvement in communication and collaboration skills with group members.

Student 4: The CBEL project I was part in this term is a valuable experience. This is my first time working in a project with a community partner and for a community; in this case, it is

Afghanistan immigrants community. Furthermore, this project also offered a learning experience outside the classroom; which is very interesting and refreshing in my opinion. I believed not everything can be learnt in classroom such as communication and coordination skill; which I gained during this project. I learnt how to communicate with people from different country and culture for the first time; moreover not all of the Afghan seniors can speak English. As a group, we encounter no problem with each other. Everyone contributed in this project. Unfortunately, the communication between us and our community partner was not really good as sometimes we either forgot or late in contacting her. Fortunately, no big problem arose and our cooking session with the Afghan seniors went smoothly and pleasurable. The online platforms used to report our progress and final report is convenient and easy to use; although I personally not used on using emails as a way to contact our community partners. The lecture materials used are interesting, especially the TED Talk video as they teach us with their own experiences. As the saying goes, "Experience is the best teacher."

Student 5: Overall, the CBEL project has been a pleasant experience. The chance to work hands-on on a project with real-world significance is highly valuable, and really drove home the difficulties that are faced by the senior immigrant community, which did not seem "real" or "relevant" before when we read about them in papers in class. The cooking session with the Afghan seniors was especially valuable as it allowed us to directly interact with the people we are attempting to help and it lent a more personal feel to the project which we would not have otherwise had. One of the greatest challenges I experienced in this group project was coordinating the time of all the group members to work on the project together. The result was that often times, we had to wait until very close to the deadline to gather everyone's work together for submission, which made deadlines very stressful. In this regard, the flexible learning sessions were a great help, as it provided a guaranteed timeslot when all of us are available so we could meet with our community partner and work on our project together. The online platform used in this course is also helpful, as the course website can be easily accessed from a variety of electronic devices, though submission of our assignments through Connect is sometimes problematic. Overall though, the use of the online platform has been mostly problem free. One online platform which I did experience a significant amount of trouble with was the website used for creating out infographic. While Piktochart is fairly intuitive to use, it really did not support group work as the changes one person makes will overwrite those made by another.

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## Appendix: Asset information

### A. Variety

	Staple	Meat	Spices	Vegetables	Beans, lentils
Supermarket 1	+++	+++ hala section	+++	+++	++
Individual grocery 1	++	N/A	++++	N/A	++
Individual grocery 3	N/A	N/A	N/A	++++	N/A
Individual grocery 2	+++	N/A	++	+++	++
Individual grocery 1	+++	N/A	++	+++	++
Supermarket 2	++	N/A	++	+++	+++
Individual grocery 5	N/A	++++	N/A	N/A	N/A

### B. Freshness

	Staple	Meat	Vegetables	Beans, lentils	Nuts & Seeds
Supermarket 1	++++	++++	++++	++++	++++
Individual grocery 1	++++	N/A	N/A	++++	N/A
Individual grocery 3	N/A	N/A	++++	N/A	N/A
Individual grocery 2	+++	N/A	+++	+++	+++
Individual grocery 1	+++	N/A	+++	+ (expired cans)	+++
Supermarket 2	++++	++++	++++	++++	++++

Individual grocery 5	N/A	++++	N/A	N/A	
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### C. Price Level by food categories

#### Spices:

	Supermarket 1	Individual grocery 1 (Nice labeling, shelving, exclusively packaged)
Nutmeg	\$7.29/49g	\$3/50g
Curry Powder	~\$4/225g	~\$2/100g
Cardamon	~\$3.6/40g (NOT SURE)	~\$3/100g(NOT SURE) Black Cardamom: \$8/100g
Black Pepper	~\$3/100g	\$3-4/100g
Paprika	smoked: ~\$4/46g	\$1-2/100g (smoked:3.5/75g)
Cumin	~\$7.5/43g	\$1-1.5/100g
Cayenne		\$1.25-1.5/100g
Tarragon	\$4.2/45g	~\$3/50g
Red chilli powder	~\$2/400g	~\$1.25/100g
Coriander	?	~5/400g
Turmeric	\$4.28/45g	\$2.5/100g (NOT SURE)
Bay leaf		\$2.99/25g
Parsley	~\$2.6/85g (bottle)	~\$1.5/100g

Staples:

	Supermarket 1	Individual grocery 1	Supermarket 2	Individual grocery 2	Individual grocery 4
Basmati Rice	~\$1.5-\$2/lb	N/A	N/A	~\$0.9/lb	~\$1/lb
Robin Hood All purpose Flour	~\$2-3/kg	N/A	~\$3-4/kg	N/A	\$3-3.5/kg
Other		<b>Oat Flour:</b> ~\$1.5-\$2/lb			"Afghanistan bread"

Meat:

	Supermarket 1 (Halal)	Individual grocery 5 (Halal)
<b>Lamb/Goat</b>	<b>Lamb Rack:</b> ~40/kg <b>Boneless lamb and ground lamb:</b> ~\$20/kg	<i>lamb: 8.99</i> <b>Goat shoulder:</b> 8.69/lb <b>Lamb shoulder:</b> \$8.29/lb <b>Lamb chop:</b> \$8.49/lb <b>Veal with bone:</b> \$5.6/lb
<b>Beef/veal</b>	<b>Beef stew:</b> ~\$20/kg <b>Steak:</b> ~\$25/kg	<b>Beef stew:</b> \$6.99/lb <b>Ground beef:</b> 3.99 6.99 (NOT SURE) <b>Beef with bone:</b> ~\$5/lb <b>Beef inside round:</b> \$7.39/lb <b>Veal with bone:</b> ~\$7/lb <b>Veal boneless:</b> \$5.59/lb <b>Veal with bone:</b> \$8.49/lb
<b>Chicken</b>	<b>Chicken wing:</b> ~\$10/kg  <b>Chicken hand:</b> ~\$6/kg	<i>Chicken wing: 3.19/lb</i> <i>Chicken breast:</i> <i>5.89(boneless) &amp; 3.99/lb(with bone)</i> <i>Chicken thigh: 4.89 (boneless) &amp; 2.89(with bone) (NOT SURE)</i> <i>Drumstick fillet: 5.69 (NOT SURE)</i>
<b>Liver, heart, tongue</b>		<i>Chicken liver: 2.69/lb</i> <i>Veal liver: 4.89</i>

		Goat liver: 9.19 Veal tongue: 7.99 Lamb tongue: 8.99 Veal heart: 2.49
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*Canned sauces, Canned and Not-Canned Beans & Lentils*

	Supermarket 1	Supermarket 2	Individual grocery 1	Individual grocery 2	Individual grocery 4
<b>Tomato paste</b>	?	?	?	\$2.99/680g	?
<b>Beans &amp; Peas &amp; Lentils</b>	<b>Red Kidney Beans (Canned)</b> \$4.98/2.84L <b>Red Kidney Beans (Not-Canned)</b> \$5.98/1.8 kg <b>Chickpeas (Canned)</b> \$4.98/2.84L & \$1.28 (regular) or 0.77/540mL (special) <b>Chickpeas (Not Canned)</b> 3.47/1.8kg (special) <b>Green Lentils</b> \$1.28 or 0.77(special)/540mL	<b>Dark Red Kidney Beans/Black Beans/Lentils/Chickpeas (Canned)</b> \$1.2(special)-\$2(regular)/540mL	<b>Green Lentils:</b> \$2.40/540mL (NOT SURE)	<b>Red Kidney Beans/Black Beans (Canned)</b> \$1.29/540mL <b>Red Kidney Beans/Chickpeas (Canned)</b> \$0.99/398mL	<b>Green Lentils:</b> \$2.40/540mL <b>Red Kidney Beans:</b> \$2.5/100g (NOT SURE)

*Nuts and Seeds*

	Individual grocery 2	Supermarket 2	Individual grocery 4	Supermarket 1
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<b>General (Almond, Pumpkin Seeds, Plums etc)</b>	\$5-\$7/lb	<b>Almonds</b> \$2.5-\$4/100g	Almonds, Walnuts \$6.99/lb Rasins: \$4-\$4.5/lb	?
Special	<b>Pistachio</b> \$9.99/lb <b>Cardamon Pods</b> 17.99/lb <b>Mulberries</b> \$.99/lb	<b>Pistachio</b> ?	<b>Pistachio</b> \$11.99/lb	?

*Vegetables*

	Supermarket 1	Supermarket 2	Individual grocery 2	Individual grocery 3	Individual grocery 4
Price Level (\$/lb)	~\$1	~\$2	<\$1	<\$1	~\$1