

Baseline Inventory of the UBC Food System: Healthy Food Situation Plan

Audit of the Top 10 Vending Machines

Vicki Ma

Grace Phipps

Matthew Tomczky

Camilla Yiu

Nancy Yp

University of British Columbia

LFS 450

April 2012

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Baseline
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Audit of the Top 10 Vending Machines

The aim of this project is to promote a sustainable and healthy UBC Vancouver campus food system through the completion of an audit of the top 10 selling vending machines. The audit enabled us to provide recommendations to stakeholders who will facilitate sales of healthy vending machine snacks on campus in adherence to the Healthier Choices in Vending Machines in BC Public Buildings Policy. The audits of the top 10 vending machines, the healthy snack food trial run at Gage Residence's vending machine and a Natural Source Vending machine at Creekside Community Center, were compiled onto an Excel Spreadsheet. The Brand Name Food List website was used to categorize vending machine items into food groups and "choose most", "choose sometimes", "choose least", and "not recommended," according to BC's vending guidelines. Interviews with stakeholders were done face-to-face and via email, and a literature search was conducted using Google Scholar, PubMed and MedLine. Findings show that on average, 59% of items in the top ten vending machines are "not recommended", 26% are "choose least", 15% are "choose sometimes", and no items are "choose most". Further, the vending Checkmark system is either not applied or incorrectly applied in all vending machines. UBC Food Services (UBCFS) is five years into their ten year contract with VendMaster and the existing terms of the contract do not require UBC to adhere to the Healthier Choices in Vending Machines in BC Public Buildings Policy until the contract is finished. There are

Scenario 1
Group 1:
Vicki Ma
Grace Phipps,
Matthew Tomczky
Camilla Yiu
Nancy Yp

many barriers to the implementation of healthy snacks in vending machines including: taste, cost, and packaging. Recommendations that can help UBCFS move toward adherence to the policy are: increasing the availability and decreasing the prices of “choose most” and “choose sometimes” items with the implementation of a colour-coding system. In addition, future LFS 450 students can conduct consumer surveys to determine snack preferences and coordinate taste tests of new products. During the next five years, we hope to see progress made toward adhering to the BC Vending Guidelines and the increased sales of healthy snacks from vending machines on the UBC Vancouver campus.

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Introduction

This paper's primary purpose is to promote a sustainable and healthy campus food system by informing our stakeholders, students and faculty on the findings and recommendations from auditing the top 10 selling vending machines at the University of British Columbia Vancouver (UBCV) campus. There are over 70 vending machines located throughout the UBCV campus. These vending machines are used by thousands of students, faculty, and visitors weekly and are a popular choice in the evenings when nearby food outlets are closed (V. Wakefield, personal communication, March 21, 2012). To optimize profits, UBC is not following the "Nutritional Guidelines for Vending Machines in BC Public Buildings" that was introduced in 2006 (from now on referred to as the BC Vending Guidelines). The policy states that "vending machines in Public Buildings will contain no food or beverage choices from the "Not Recommended" or "Choose Least" categories according to the Nutritional Guidelines" (Ministry of Labour and Citizens' Services, 2007, p.1). The policy further states that "at least 50% of all food and beverage choices within a bank of vending machines in any given location in a building covered by this policy must be from the "Choose Most" category" (Ministry of Labour and Citizens' Services, 2007, p.2). This is a good example of how a policy that is not fully enforced can become shadowed by the drive to optimize profit.

Most global food systems are driven by profit. Policies are in place to protect consumers and the environment from being taken advantage of by large corporations. If a policy fails, then the cost a local community pays becomes far greater than the benefits of that particular food system (Rocha, 2006). Some examples of policy failures globally are water degradation, soil erosion, and deforestation resulting in resources being used faster than they can be replaced (Rocha, 2006). North American food corporations such as Pepsi and Coca-Cola also hold a lot of influence over the consumption of unhealthy products such as soft drinks and ingredients,

such as high-fructose corn syrup. This is due to the sheer size and political influence of these corporations (O'Brien, 2010). The UBC food system's vending machines have a disproportionate amount of unhealthy products from these companies and others, which generate great profit. Through the audit, collected graphical and quantitative data were presented to UBC Food Services (UBCFS) on how profit has contributed to a disproportionate amount of unhealthy food options in the top 10 selling vending machines.

We feel that UBC, a heavily research based facility, is making a difference to the BC economy because they contribute 10 billion dollars to BC economy annually (UBC Public Affairs, 2009). According to the 2012 Times Higher Education Reputation Ranking, UBC has been rated as the top 25th school in the world (UBC Public Affairs, 2012). Domestically and globally, UBC has the power to influence sustainability projects at other institutions by setting a good example. One of these is the new Student Union Building (SUB) at UBC that will be a great hub for implementing sustainable projects such as the rooftop garden and healthy vending machines.

We are UBC students investigating the vending machine component of UBC's food system. We are all aware of nutritious, sustainable foods as we each have four years of education in this area and understand the complexity and rigidity of food systems as a whole. Through preliminary research we found that we cannot make a direct impact, but rather we can build a solid foundation where our efforts can support future LFS 450 students in implementing the BC Vending Guidelines. Our group is divided between completely eliminating unhealthy options versus minimizing unhealthy options in vending machines. A vending machine is a great alternative for a snack and sometimes an unhealthy snack is a better option than an unhealthy meal. The obesity epidemic however, tells us that any unhealthy options can have a negative

impact. As a group, we value protecting the health of the consumer while educating them on how each dollar spent on vending machines dictates the outcome of what is ultimately stocked in it. The sales of unhealthy products will continue to supply unhealthy products. Having more healthy options in the vending machines will encourage the consumer to purchase a healthier item though greater selection.

Our group agrees with all of the points in the UBC Food System Project (UBCFSP) Vision Statement. We see that throughout the UBC campus, some of these goals are being reached. We believe that with determination and patience, all of the goals can be reached. However, some requires a long time frame, such as having the system be energy and emission neutral, as well as having all food to be locally grown, produced and processed. The audit of the top 10 vending machines should raise awareness of the situation at hand. We hope that by including more healthy items in the vending machines, we may then trigger a change towards more local and sustainable options in years to come.

Methodology

A literature review was conducted through Google Scholar, PubMed and MedLine. This was done to learn more about healthier vending machine options, the current situation of vending machines in BC schools, and promotional strategies used to implement healthier options in vending machines. Key search words used were: healthy, vending machines, schools, strategies, policies, and interventions. Important sources that were found during the literature search included: Act Now BC, Ministry of Labour and Citizens' Services, San Diego and Imperial Regional Nutrition Network, and Dietitians of Canada.

A face-to-face interview with Victoria Wakefield, Purchasing Manager for UBCFSP, took place on February 8, 2012 at IRC Woodward lecture room 1 to get a sense of the current

situation of the vending business at UBC. Email questionnaires were conducted to further understand the operations of the vending business. The first email was sent on January 25, 2012 to clarify the top 10 vending machine locations; response was received on January 29, 2012. A second email was sent on February 16, 2012 to request a product list from the UBC vending supplier and a list of times of high volume vending purchases, as well as to request an opportunity to implement a trial run of healthy options in one or more of the top 10 vending machines to include in our project. A response was received on February 29, 2012, which included the contact for the vending machine supplier, VendMaster Services. VendMaster was emailed on February 29, 2012 to request a product list. This was needed to know which products were available for supplying the vending machines. A sample product list from VendMaster was received on March 5, 2012. A third email was sent to V. Wakefield on March 21, 2012 to determine the status of the contract with VendMaster and to find out if the new SUB is part of the current contract. An email response was received on March 21, 2012. A fourth email was sent on March 27, 2012 to ask if she had any intentions to renew the contract with VendMaster; a response was received on the same day.

An inventory of the top 10 selling vending machines on the UBCV campus was compiled to identify the types of snack foods being sold to consumers and whether or not UBC is adhering to the BC Vending Guidelines. Information such as product name, size (grams), price, and whether if the health Checkmark System was in place were collected and compiled onto a Microsoft Excel Spreadsheet (see Appendix A). The inventory was compiled over a two-week time frame, between the weeks of January 17, 2012 to January 31, 2012, at the following locations: Aquatics Centre, Brock Hall, Buchanan 2nd (B), Common Residence (Marine Drive), Gage Residence, Woodward, Koerner Library, SUB Pizza, Vanier Place, and Winter Sports

(Thunderbird). The Brand Name Food List (n.d) was used to categorize the inventory into “choose most”, “choose sometimes”, “choose least” and “not recommended” categories according to BC’s nutrition standards for schools and public buildings. Food items were also categorized into food groups: fruits and vegetables, grains, nuts and seeds, or candies with reference to the same website. This information was transferred into bar graphs to visualize the proportion of the food items in each category and whether or not UBC has achieved the BC Vending Guidelines. This completed the audit of the inventory.

Research was also completed to identify other vending machine suppliers that could offer healthy options. Through a Google search, we came across Natural Source Vending, a BC based vending company, which claims to offer a wide selection of products that adhere to the “BC’s 2007 Healthy Food and Beverage Guideline” (Natural Source Vending, 2010). We contacted them via their website on March 8, 2012, regarding the locations of their vending machines with a response received on the same day.

Audits of the new vending machine at Gage Residence, undergoing a healthier food option trial run, and a vending machine by Natural Source Vending at Creekside Community Centre, were likewise compiled on March 27, 2012. The same inventory and auditing format for the top 10 vending machines was used. These audits were done for comparison purposes. Lastly, to evaluate our scenario, a meeting was scheduled on March 28, 2012 via email with V. Wakefield, for April 3, 2012 at 1:15pm. This meeting was called to present her with our audits, findings, and recommendations for the project. Her feedback was collected as an evaluation of our project.

A strength in our method was taking the initiative to do audits of the vending machines at Gage Residence, undergoing a healthy option trial run, and the Creekside Community Centre.

These audits were done to help us develop a more rounded research and realistic recommendations.

A weakness in our method included poor time management in arranging email interviews with V. Wakefield. We were not persistent enough in contacting our stakeholder by email. Rather than follow up in a couple days to obtain a response, we often delayed for a week or more. If we had have been more timely in our follow ups or had have contacted her directly via phone interview, we may have been able to delve deeper into this scenario and possibly allowed us to take part in the vending machine trial run at Gage Residence, originally suggested by V. Wakefield in our first interview. Another weakness was not being able to obtain a full product list from VendMaster due to the competitive nature of the Vending business.

Findings and Outcomes

In 2005, the Ministries of Health and Education of Act Now BC (2008) published the Guidelines for Food and Beverage Sales in BC Schools. These guidelines have played a large role in promoting healthy eating in primary and secondary schools through education and healthy food interventions. The guidelines were to be fully implemented by schools by 2009. All food categorized as “not recommended” or “choose least” has been completely eliminated in primary and secondary school vending machines (Ministry of Labour and Citizens’ Services, 2007). These programs and changes in vending machines have not yet been widely implemented in post-secondary schools and public buildings in BC.

The government has also developed the Checkmark System to assist consumers in making informed choices at the point of sale. A legend should be located on the vending machines to help consumers identify healthier options and assist them in making more informed decisions about nutrition. Two check marks stand for “choose most” and one check mark stands

for “choose sometimes” (Act Now BC, 2008). We found that the Checkmark System was applied in only half of the top 10 vending machines: Koerner, Woodward, Thunderbird, Buchanan 2nd (B) and Common Residence (Marine Drive). In these machines, two check marks were not to be found on any products, rather only one, and some were incorrectly labelled (see Appendix A).

The Ministry of Labour and Citizens’ Services (2007) has produced the Healthier Choices in Vending Machines in B.C. Public Buildings Policy along with nutritional guidelines for vending machines. The purpose of the policy is to promote an environment that encourages healthier eating by increasing the range of healthier food and beverage choices in public building vending machines. Post-secondary schools with vending machines located on property owned or leased by the public are required to follow this policy by 2009, excluding contracts signed before this date. Vendors are also made aware of this policy and have access to the information via the Ministry of Labour and Citizens’ Services website (2007). At present, UBCFS is five years into their 10 year contract with VendMaster (V. Wakefield, personal communication, March 21, 2012). The existing terms of the contract does not require UBCFS to follow the BC Vending Guidelines until the expiration date (Ministry of Labour and Citizens’ Services, 2007).

Currently, the top 10 vending machines do not follow the BC Vending Guidelines, with more than 50% of the items categorized as “not recommended”. None of these machines stock any “choose most” items. On average, products in the top 10 vending machines are 15% “choose sometimes”, 26% “choose least, and 59% “not recommended”. The sample product list supplied by VendMaster contained 19% “choose most”, 20% “choose sometimes”, 20% “choose least” and 41% “not recommended” items. A summary of the percentages of items in each of the categories in each vending machine can be found in Appendix B.

According to Brand Name Food List (n.d), items from the vending machines are also classified into food groups. Only four vending machines (Sub Pizza, Gage Residence, Thunderbird and Brock Hall) carry items from the nuts and seeds food group, whereas the remaining six only sell items from the other three food groups.

The vending machine at Gage Residence, undergoing a healthy options trial run contained 7% “choose most” items, 36% “choose sometimes” items, 10% “choose least” items, and 47% “not recommended” items (see Appendix B). There was a significant increase in “choose most” and “choose sometime” items in comparison to the top 10 vending machines. The audit of the Creekside Community Center vending machine provided a good example of what a vending machine closer to adhering to the BC Vending Guidelines would look like. The vending machine had 28% “choose most”, 32% “choose sometimes”, 28% “choose least” and 12% “not recommended” items (see Appendix B).

There is no guarantee that the contract with VendMaster will be renewed in five years since the vending economy will be different, in addition, the fact that the new SUB vending machines will be managed by the UBC Alma Mater Society (AMS) rather than UBCFS (V. Wakefield, personal communication, March 27, 2012).

Promotional strategies were identified through the literature searches which were implemented in other schools to help encourage sales of healthier snacks from vending machines. Strategies to improve the sales of healthy products included: using labels and signs indicating which items are healthy, placement of healthier items at eye level, reducing the price of healthier options while increasing the price of unhealthy options, posting signage to promote new healthy snack options, and using a colour-coding system (San Diego and Imperial Regional Nutrition Network, n.d). A colour-coding system can enables consumers to quickly identify healthier

snacks and includes labeling of lower fat snacks and arranging food items into health categories with colour coded price tags. For example, all “choose most” items will be placed on the top row with green tags and signage, all “choose sometimes” and “choose least” items on another row with yellow tags and signage, and all “not recommended” items on the bottom row with red tags and signage. A legend can be provided on the side of the vending machine to educate the consumer. In addition, a research study done in Ontario High Schools found that price, value, and taste still remain to be the major barriers to implementing these changes even though students say they preferred to have real healthy snacks such as yogurt, fruit, and vegetables. (Callaghan & Mandich, 2010).

Discussion

From our findings, we were able to determine which of the top 10 vending machines had the most healthy options and the most unhealthy options. Marine Drive Residence contained the highest percentage of items not from the “not recommended” category (52%), according to the 2011 vending sales, (see Appendix B), and it ranked first in sales. This leads us to assume that consumers are not against the idea of healthier snack items. The most unhealthy snack items however, were found at Aquatic Front, holding 74% of “not recommended” items. This vending machine was the third top selling machine (UBCFS, 2011).

We found that the proportion/size of a product affects which BC Vending Guidelines category it falls into. For example, a 48 gram bag of Lays Classic chips is categorized as “not recommended”, but a 28g bag of the same product is classified as “choose least” (Brand Name Food List, n.d). This shows that food items are not categorized by its nutritional value. This is important to note because if items are labeled according to their categories on the machines, it

may mislead consumers who are unaware of portion control, to believe that all Lays Classic chips are “choose least”, even when not purchasing from a vending machine.

The Checkmark System policy states that one check mark represents “choose sometimes” and two check marks represent “choose most” (Ministry of Labour and Citizens’ Services, 2007). In the top 10 vending machines, the health Checkmark System is not being implemented correctly; one check mark is being used on items classified as “not recommended”. This problem occurs when the VendMaster staff restocks a different item in the place of one that did have a check mark, but forgets to change the check mark displayed. This misrepresents the products and promotes unhealthy choices to consumers who believe they are purchasing an item that is categorized as “choose sometimes”. It also creates an issue with respect to the sales of unhealthy items because it increases their supply and demand. This further decreases the chance to encourage consumers to choose healthier items.

Between now and till the contract with VendMaster expires, the only available choices to put into the vending machines are what VendMaster offers. Implementing healthier changes is difficult when there are a limited number of healthy options to choose from. The best alternatives to high fat items are the baked chips and selected granola bars which are currently sold in the top 10 vending machines and are placed at eye level, a common strategy used to promote healthier items.

Factors that influence the implementation of healthier snack options into vending machines include the size and packaging of products, their cost, and their taste. Healthy items are often real foods that are not packaged in a format that is compatible with the spiral rings that vending machines have to store their products in. Snacks that are lower in fat and sugar and higher in nutritional value are often more expensive than conventional snacks which deters

consumers from buying the healthier option. Taste also must be considered when determining which products consumers will choose to purchase. If the selection offered does not satisfy students' tastes, they will likely purchase from other venues which will affect profits. Possible ways to overcome these barriers are to decrease prices of healthier items in comparison to unhealthy items, as well as conducting taste tests of new products.

The strengths of our project include the success of our assessment to meet our objective and our ability to make realistic recommendations to our stakeholders based on our findings. Limitations of our audit, on the other hand, were the uncontrollable variability of the food items in the vending machines and the fact that it only covered the top 10 selling vending machines. The top ten vending machines may not have given a full representation of the food items regularly stocked and sold from these machines and provided us with the full picture of the status of products in all vending machines on the UBCV campus. The trial run vending machine at Gage Residence for example, was not included in our original audit. Although our assessment may not represent the entire vending machine patterns at UBC, it does tell us that consumers at UBC purchase mostly “not recommended” items as they are the most common items found in the top 10 selling vending machines. This increases the demand of these items from large corporations creating a never-ending cycle of unhealthy snack food supply and demand.

We feel that vending machines are not a sustainable aspect of the food systems. They are associated with unhealthy snack items and consumers go to vending machines with the intention of purchasing items such as chips and candy bars. We feel an alternative option would be to consider implementing vending machines that dispense refrigerated foods such as: fruits, vegetables, and yogurt. These items may appeal to students when stores are closed and have no access to obtaining real food since vending machines are used most, after other store venues have

closed (V. Wakefield, personal communication, February 29, 2012). We understand however, that once a system is in place, it is very difficult to remove and replace it with an entirely new one. It is more realistic to modify parts slowly until a desired outcome is achieved. It is possible that if it is demonstrated that there is demand for and profit to be made by selling snacks with higher nutritional value, both from a financial and a social responsibility perspective, vending machine companies would be presented with an incentive to promote and sell healthier products. This could pressure the food industry to manufacture healthy snacks for vending machines which could improve the UBC food system as a whole.

Stakeholder Recommendations

Recommendations to our stakeholder to implement over the summer of 2012 include: increasing the availability of “choose most” products in the top ten vending machines, decreasing the prices of the “choose sometimes” and “choose most” products while increasing the prices of the “choose least” and “not recommended” products, and implementing the color-coding system mentioned in the findings section. Greater availability and lower prices on targeted food items from vending machines can increase purchases of these items (San Diego and Imperial Regional Nutrition Network, n.d). This can start encouraging consumers to choose healthier options now and slowly ease them into change after the contract ends in 2017.

During the next 5 years of UBCFS’s contract with VendMaster, we suggest monitoring this company’s selection of “choose most” products to see if it increases. If it does not, we suggest looking into a different vending supplier that can help UBCFS better meet BC’s Vending Guidelines for schools and public buildings. This is not an ideal scenario however, as VendMaster is a valued, local supplier that allows great flexibility in the products stocked in their machines, but it is one that should be kept in mind.

We recommend that the UBCFS coordinator and the SEEDS office contact Victoria Wakefield over the summer to determine which projects can be done for UBCFS by next year's LFS 450 class. Based on the stakeholder feedback meeting, there are more ways for these groups to work together to improve the availability of healthy snacks and drinks in vending machines.

Scenario Evaluation & Feedback

After presenting V. Wakefield with the status of the top 10 vending machines based on BC's Vending Guidelines, she wanted to know our opinions on the guidelines. We feel that the strictness of the guidelines make them hard to reach in vending machines. Vending machine products are not whole foods; they are snack foods. Most of them are therefore lacking in the qualities needed to be classified as "choose most".

V. Wakefield was not concerned with the fact that we did not delve into the findings on the proportions of food groups being offered in the top ten vending machines. She was in fact surprised to hear BC Vending Guidelines classify vending machine snack foods as any of the food groups, especially fruits and vegetables (see Appendix A).

The first feedback question V. Wakefield posed was: "What is missing personally from the vending machines that you would buy?" (Personal communication, April 4, 2012). Mat described his experience at the Gage Residence vending machine undergoing the healthy snack food trial run. He determined that he could buy a balanced snack for about five or six dollars including: beef jerky for essential protein, nuts for omega-3 fatty acids, and a bag of baked chips for carbohydrate. This availability makes the healthy Gage machine a great improvement to the top 10 vending machines as well as a good beginning to making changes to improve the availability of healthy snacks in vending machines.

V. Wakefield was pleased with the realistic nature of the recommendations for both UBCFS and future LFS 450 classes. She mentioned that she was particularly interested in trying the method of increasing the prices of unhealthy snacks while lowering the prices of healthy snacks, as well as in working with the UBCFS coordinator and the SEEDS office to enlist the help of future LFS 450 students.

Due to the success of our findings, V. Wakefield is interested in having next year's LFS 450 students do a similar inventory and audit of UBC's Coca-Cola pop vending machines. This was very exciting to us, as we believe in how dangerous aspartame is to our health and in the contribution of high-fructose corn syrup to obesity.

V. Wakefield also mentioned that she will be meeting with VendMaster to present them with our findings. UBCFS enjoys working with VendMaster in terms of sustainability because it is a local, family owned business, which provides greater flexibility as compared to multinational corporations. This means that come September 2012, we should see changes to the top 10 vending machines, such as price changes, being implemented. Overall V. Wakefield believes this project to be a great foundation to work with and build upon.

Group Reflection

Our team believes that in terms of health, vending machines are not a sustainable part of the food systems. Vending machines do not provide a large selection of foods high in essential nutrients, such as fiber or iron, while providing too many products with high fat and sodium contents. This contributes to the development of chronic diseases, such as obesity and heart disease. Health unfortunately, is only one aspect of sustainability.

Vending machine sales contribute greatly to the financial sustainability of UBCFS since UBCFS is a self-sustaining organization. We therefore found it challenging to suggest changing

the products being sold from the top ten vending machines when we were unsure of the financial outcomes. A test run is therefore necessary before making these changes; something our group did not have time to conduct.

We were successful in informing V. Wakefield of the status of the top 10 vending machines in terms of meeting the Nutritional Guidelines for Vending Machines in Public Buildings. This allowed us to make realistic recommendations based on our research which were well received by our stakeholder and will be implemented over the summer.

Scenario Recommendations

Future generations of LFS 450 classes should work with UBCFS over the next five years to help them meet the BC Vending Guidelines. This process should begin with next year's LFS 450 students selecting products offered by VendMaster which are in the "choose sometimes" and "choose most" categories and developing a survey around these items to determine which ones consumers at UBC would purchase based on taste/desire, cost, and nutritional quality. This year's class should also develop promotional signage for the products chosen by consumers, to promote the healthier products once put into the vending machines for a trial run.

The trial run should be conducted either by next year's LFS 450 class, if time permits, or the class of 2014. This will allow time during the last years of the contract with VendMaster to either, re-do test runs, if the first was unsuccessful, with either different products or promotional strategies. Or if the test run is a success, VendMaster can implement changes in all vending machines. If a new vending machine supplier will be signed in five years to come, we suggest requesting that the vendor provide samples of their new products for a taste test. Have future LFS 450 students help conduct a taste test of the new products to ascertain consumer's likes and

dislikes, as taste influences a consumer's choice in purchasing food. Taste tests can demonstrate to consumers that tasty, healthy foods can be found in a vending machine.

We recommend that the LFS teaching team contact AMS to include them in future scenarios pertaining to healthy snacks and drinks in vending machines. The AMS will be able to sign vending machine contracts to have these machines in the new SUB. It is important that these machines are able to meet the BC Vending Guidelines and future LFS classes could help with this.

Conclusion

An audit of the top 10 selling vending machines on the UBC Vancouver campus has been completed to inform UBC Food Services of how they are doing in providing healthy snack options. Our findings have been well received by our stakeholder and some recommendations will be implemented by this September 2012. Improvements based on these findings will help improve the health of UBC's consumers and therefore the sustainability of the UBC food system.

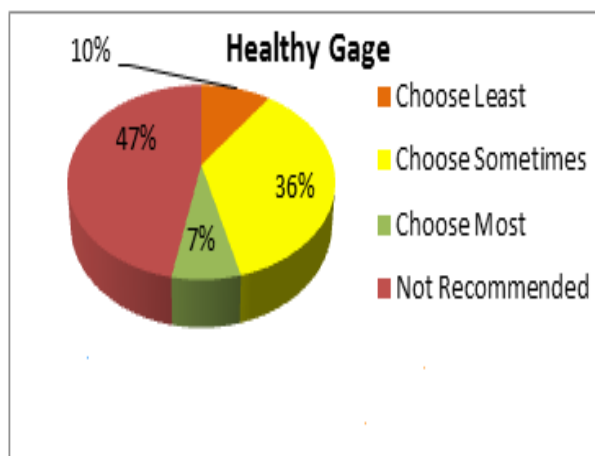
Media Release

UBC Food System Project

April 2012

Baseline Inventory of the UBC Food System:

Healthy Food Situation Assessment and Action. Audit of the Top 10 Selling Vending Machine



An enthusiastic group of hard working LFS students were chosen to audit the top 10 selling vending machines on the UBC campus. This audit was done to determine the portions of food that are categorized into the choose most, choose sometimes, choose least and not recommended categories according to the “Nutritional Guidelines for Vending Machines in B.C. Public Buildings”.

Through the audit, quantitative and graphical data was collected and presented to UBC Food Services which purchases the products that go into the vending machines on the UBC campus. The LFS students’ recommendations encouraged UBC Food Services to roll out another trial of vending machine containing healthy options such as the one found in Gage Residence, into the SUB starting in the fall term of 2012. Other initiatives taken into consideration were lowering the price of healthy items and raising the price of unhealthy items to promote healthy eating.

Located in the Gage lobby, hidden away is the healthiest vending machine located on campus for snacks. Students, staff, and visitors have the option of baked lays, locally produced beef jerky, mixed nuts, and granola bars that provide delicious and healthy options to appease everyone.

“If you’re looking for a healthy vending snack after hours, Gage Towers student housing is where to go!”

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Appendix

Appendix A: - Audits of the Top 10 Selling Vending Machines on UBC Vancouver Campus

Table 1 – Inventory of the Top 10 Vending Machine on UBC Vancouver Campus

KOERNER					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Dutch Crunch Kettle Cooked Jalapeno Cheddar	40	Veg/Fruit	Choose Least	1.50	No
English bay bakery chocolate chunk cookie	100	Grains	Choose Least	1.50	No
Lays Classic	40	Veg/Fruit	Choose Least	1.50	Yes
Miss Vickie's Jalapeno	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's sea salt and malt vinegar	40	Veg/Fruit	Choose Least	1.50	Yes
Miss Vickie's sweet chilli and sour cream	40	Veg/Fruit	Choose Least	1.50	Yes
Nature Valley Trail mix bar- fruit and nuts	35	Grains	Choose Least	1.25	Yes
Sun Chips garden salsa	43	Grains	Choose Least	1.50	Yes
Welches fruit snacks mixed fruit	64	Veg/Fruit	Choose Least	1.50	Yes
Excel peppermint gum	2.8	Candies	Choose Sometimes	1.25	Yes
Lays baked BBQ	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Lays baked original	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Norma's chocolate chunk cookie	100	Grains	Choose Sometimes	1.50	No
Ruffles baked cheddar and sour cream	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Ruffles baked cheddar and sour cream	32	Veg/Fruit	Choose Sometimes	1.00 (sale)	Yes
Frito Lays Smart food cheddar cheese popcorn	45	Grains	Not Recommended	1.75	No
Hickory Sticks	50	Veg/Fruit	Not Recommended	1.50	No
Lays Ketchup	43	Veg/Fruit	Not Recommended	1.50	No
Ruffles all dressed	40	Veg/Fruit	Not Recommended	1.50	No
Coffee crisp	50	Candies	Not Recommended	1.75	No
DAN-D-PAK rice crackers original	80	Grains	Not Recommended	1.75	No
Frito Lays Hoops BBQ	50	Grains	Not Recommended	1.50	No
Gummy zone sour gummy patch watermelons	130	Candies	Not Recommended	2.25	Yes
Hershey's almond	43	Candies	Not Recommended	1.75	No
Hershey's cookies and cream	43	Candies	Not Recommended	1.75	No
Humpty Dumpty Potato Sticks bacon hickory	50	Veg/Fruit	Not Recommended	1.50	No
Kit Kat	50	Candies	Not Recommended	1.75	No
Lays BBQ	40	Veg/Fruit	Not Recommended	1.50	Yes
Mars	52	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchies nacho cheese	55	Grains	Not Recommended	1.50	No
Reece's peanut butter cup	51	Candies	Not Recommended	1.75	No
Rold Gold thins minces pretzels	47	Grains	Not recommended	1.50	Yes
Smarties	50	Candies	Not Recommended	1.75	No
Sour Super Wormies	130	Candies	Not Recommended	2.25	No
PLACE VANIER					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
English bay bakery chocolate chunk cookie	100	Grains	Choose Least	1.50	No
Lays Classic	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's sea salt and malt vinegar	40	Veg/Fruit	Choose Least	1.50	No
Ruffles sour cream and onion	40	Veg/Fruit	Choose Least	1.50	No
Sun Chips Harvest Cheddar	40	Grains	Choose Least	1.50	No
Welches fruit snacks mixed fruit	64	Veg/Fruit	Choose Least	1.50	No
Lays baked BBQ	32	Veg/Fruit	Choose Sometimes	1.50	No
Lays baked original	32	Veg/Fruit	Choose Sometimes	1.50	No
Norma's chocolate chunk cookie	100	Grains	Choose Sometimes	1.50	No
Frito lays Smart food white cheddar popcorn	45	Grains	Not Recommended	1.75	No
Lays Ketchup	43	Veg/Fruit	Not Recommended	1.50	No

Aero	42	Candies	Not Recommended	1.75	No
Cheetos Crunchy	51	Grains	Not Recommended	1.50	No
Coffee crisp	50	Candies	Not Recommended	1.75	No
Crispers Ranch	50	Grains	Not Recommended	1.50	No
Doritos Nacho	45	Grains	Not Recommended	1.50	No
Fritos Hoops BBQ	50	Grains	Not Recommended	1.50	No
Hershey's cookies and cream	43	Candies	Not Recommended	1.75	No
Kit Kat	50	Candies	Not Recommended	1.75	No
Mike and Ike	60	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchies nacho cheese	55	Grains	Not Recommended	1.50	No
Old Dutch salt and vinegar	40	Veg/Fruit	Not Recommended	1.50	No
Quaker Yogurt Granola Bar Vanilla	35	Grains	Not Recommended	1.25	No
Reece's peanut butter cup	51	Candies	Not Recommended	1.75	No
Rold Gold thins minces pretzels	47	Grains	Not recommended	1.50	No
Skore	49	Candies	Not Recommended	1.75	No
Snickers	42	Candies	Not Recommended	1.75	No
Sour tongue Tingleers	120	Candies	Not Recommended	2.25	No
WOODWARD					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Miss Vickie's Jalapeno	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sea Salt and Malt Vinegar	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sweet Chili and Sour Cream	40	Veg/Fruit	Choose Least	1.50	No
Munchies	40	Grains	Choose Least	1.50	No
Nature Valley	35	Grains	Choose Least	1.25	Yes
Old Dutch Rip L Chips Sour Cream & Onion	40	Veg/Fruit	Choose Least	1.50	No
Stacy's Pita Chips Parmesan Garlic and Herb	38.9	Grains	Choose Least	1.50	No
Sunchip Harvest Cheddar	40	Grains	Choose Least	1.50	Yes
Welches Fruit Snacks	64	Veg/Fruit	Choose Least	1.50	No
English Bay Cookie	43	Grains	Choose Sometimes	1.50	No
Excel Gum	2.8	Candies	Choose Sometimes	1.50	Yes
Lay's Baked Chips BarBQ	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Lay's Baked Chips Original	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Norma's Cookie	40	Grains	Choose Sometimes	1.50	No
Ruffles Baked Chips Cheddar and Sour Cream	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Aero	42	Candies	Not Recommended	1.75	No
Coffee Crisp	50	Candies	Not Recommended	1.75	No
Doritos Nacho Cheese	40	Grains	Not Recommended	1.75	No
Fritos Hoops BarBQ	40	Grains	Not Recommended	1.50	No
Hersheys Almond	43	Candies	Not Recommended	1.75	No
Hickory Sticks Original	50	Veg/Fruit	Not Recommended	1.50	No
KitKat	50	Candies	Not Recommended	1.75	No
Lay's Potato Chips Classic	40	Veg/Fruit	Not Recommended	1.50	No
Lay's Potato Chips Ketchup	40	Veg/Fruit	Not Recommended	1.50	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchys Nacho Cheese	55	Grains	Not Recommended	1.50	No
Quaker Yogurt Bar	35	Grains	Not Recommended	1.25	Yes
Reese	51	Candies	Not Recommended	1.75	No
Rold Gold Pretzel	47	Grains	Not Recommended	1.50	Yes
Ruffles Chips All Dressed	40	Veg/Fruit	Not Recommended	1.50	No
Skittles	61.5	Candies	Not Recommended	1.75	No
Smartfood Popcorn White Cheddar	45	Grains	Not Recommended	1.50	No
Snickers	59	Candies	Not Recommended	1.75	No
Sour Tongue Tingleer	120	Candies	Not Recommended	1.25	No
Super Wormies	142	Candies	Not Recommended	2.25	Yes

SUB PIZZA					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Dutch Crunch Jalapeno and Cheddar	43	Fruit/Veg	Choose Least	1.50	No
English Bay Milk Chocolate Chip	43	Grains	Choose Least	2.50	No
Food Should Taste Good Multigrains	43	Grains	Choose Least	1.50	No
Miss Vickie's Jalapeno	43	Fruit/Veg	Choose Least	1.50	No
Miss Vickie's Sea Salt and Vinegar	43	Fruit/Veg	Choose Least	1.50	No
Miss Vickie's Sweet Chilli and Sour Cream	43	Fruit/Veg	Choose Least	1.50	No
Munchie's Roasted Peanuts`	60	Nut/seed	Choose Least	1.75	No
Sun Chips Harvest Cheddar	43	Grains	Choose Least	1.50	No
Welches Fruit Snacks	64	Candies	Choose Least	1.50	No
Excel	2.8	Candies	Choose Sometimes	1.50	No
Lays Baked BBQ	32	Fruit/Veg	Choose Sometimes	1.50	No
Lays Baked Classic	32	Fruit/Veg	Choose Sometimes	1.50	No
Lays Baked Sour Cream and Cheddar	32	Fruit/Veg	Choose Sometimes	1.50	No
Nature Valley Crunchy Almond	42	Grains	Choose Sometimes	1.25	No
Norma's Chocolate Chunk Cookie	40	Grains	Choose Sometimes	2.50	No
Nutri Grain Cereal Bar Mixed Berry	37	Grains	Choose Sometimes	1.25	No
Nutri Grain Cereal Bar Raspberry	37	Grains	Choose Sometimes	1.25	No
3 Musketeers	60	Candies	Not Recommended	1.75	No
Aero	42	Candies	Not Recommended	1.75	No
Caramilk	52	Candies	Not Recommended	1.75	No
Coffee Crisp	50	Candies	Not Recommended	1.75	No
Dan-D-Pak Rice Crackers	80	Grains	Not Recommended	1.75	No
Diary Milk	53	Candies	Not Recommended	1.75	No
Dorito's Nachos	50	Grains	Not Recommended	1.50	No
Fritos Hoops BBQ	50	Grains	Not Recommended	1.50	No
Hershey's Cookies and Cream	43	Candies	Not Recommended	1.75	No
Hershey's Milk Chocolate with Almond	43	Candies	Not Recommended	1.75	No
Hickory Sticks	50	Fruit/Veg	Not Recommended	1.50	No
Kit Kat	50	Candies	Not Recommended	1.75	No
Lays Classic	43	Fruit/Veg	Not Recommended	1.5	No
Lays Ketchup	43	Fruit/Veg	Not Recommended	1.50	No
Mars	53	Candies	Not Recommended	1.75	No
Mike and Ike	60	Candies	Not Recommended	1.75	No
Mr. Bi	60	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchys	50	Grains	Not Recommended	1.50	No
Quaker Chewy Yogurt Blueberry	36	Grains	Not Recommended	1.25	No
Ruffles All Dressed	43	Fruit/Veg	Not Recommended	1.50	No
Skittles Explosion	61	Candies	Not Recommended	1.75	No
Smarties	50	Candies	Not Recommended	1.75	No
Snickers	53	Candies	Not Recommended	1.75	No
Super Tongue Tingle	143	Candies	Not Recommended	2.25	No
Super Wormies	143	Candies	Not Recommended	2.25	No
Twix	56.7	Candies	Not Recommended	1.75	No
Wonder Bar	60	Candies	Not Recommended	1.75	No
AQUATIC FRONT					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Food Should Taste Good Sweet Potato Chips	43	Grains	Choose Least	1.50	No
Miss Vickie's Sea Salt and Vinegar	43	Fruits/Veg	Choose Least	1.50	No
Miss Vickie's Sweet Chilli and Sour Cream	43	Fruits/Veg	Choose Least	1.50	No
Old Dutch Kettle Cooked Jalapeno	43	Grains	Choose Least	1.50	No
Stacy's Pita Chips	38.9	Grains	Choose Least	1.50	No

Sun Chips Harvest Cheddar	43	Grains	Choose Least	1.50	No
Lays Baked BBQ	32	Fruits/Veg	Choose Sometimes	1.50	No
Lays Baked Sour Cream and Cheddar	32	Fruits/Veg	Choose Sometimes	1.50	No
Aero	42	Candies	Not Recommended	1.75	No
Caramilk	52	Candies	Not Recommended	1.75	No
Cheetos Crunchy	60	Fruits/Veg	Not Recommended	1.50	No
Diary Milk	53	Candies	Not Recommended	1.75	No
Frito Hoops BBQ	50	Fruits/Veg	Not Recommended	1.50	No
Hershey's Cookies and Cream	43	Candies	Not Recommended	1.75	No
Hickory Sticks	50	Grains	Not Recommended	1.50	No
Humpty Dumpty Potato Sticks	50	Fruits/Veg	Not Recommended	1.50	No
Kit Kat	50	Candies	Not Recommended	1.75	No
Lays BBQ	43	Fruits/Veg	Not Recommended	1.50	No
Lays Classic	43	Fruits/Veg	Not Recommended	1.50	No
Lindt Dark Chocolate	30	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchys	50	Grains	Not Recommended	1.50	No
Reese's	51	Candies	Not Recommended	1.75	No
Rold Gold Pretzels	50	Fruits/Veg	Not Recommended	1.50	No
Ruffles Sour Cream and Onion	43	Fruits/Veg	Not Recommended	1.50	No
Skittles Explosion	61	Candies	Not Recommended	1.75	No
Skittles Original	61	Candies	Not Recommended	1.75	No
Skittles Tropical	61	Candies	Not Recommended	1.75	No
Smart Food White Cheddar Popcorn	50	Grains	Not Recommended	1.50	No
Snickers	53	Candies	Not Recommended	1.75	No
Wonderbar	60	Candies	Not Recommended	1.75	No
GAGE RESIDENCE					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Dutch Crunch Jalapeno and Cheddar	40	Veg/Fruit	Choose Least	1.50	No
Food Should Taste Good Multigrain Chips	43	Grains	Choose Least	1.50	No
Friday's Potato Skin Cheddar and Bacon	49.7	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Jalapeno	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sea Salt and Malt Vinegar	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sweet Chili and Sour Cream	40	Veg/Fruit	Choose Least	1.50	No
Nature Valley	35	Grains	Choose Least	1.25	No
Ruffles Chips Sour Cream and Onion	40	Veg/Fruit	Choose Least	1.50	No
Stacy's Pita Chips Simply Naked	38.9	Grains	Choose Least	1.50	No
Sunchip Harvest Cheddar	40	Grains	Choose Least	1.50	No
Welches Fruit Snacks	64	Veg/Fruit	Choose Least	1.50	No
English Bay Cookie	43	Grains	Choose Sometimes	1.50	No
Norma's Cookie	40	Grains	Choose Sometimes	1.50	No
Aero	42	Candies	Not Recommended	1.75	No
Cheetos Cruchy Cheese	56.7	Grains	Not Recommended	1.50	No
DanDPak Mountain Trail Mix	100	Nuts	Not Recommended	2.25	No
Fritos Hoops BarBQ	60	Grains	Not Recommended	1.50	No
Hershey's Almond	43	Candies	Not Recommended	1.75	No
Hickory Sticks Original	50	Veg/Fruit	Not Recommended	1.50	No
Humpty Dumpty Potato Sticks Bacon Hickory	50	Veg/Fruit	Not Recommended	1.50	No
KitKat	50	Candies	Not Recommended	1.75	No
Lay's Potato Chips BarBQ	40	Veg/Fruit	Not Recommended	1.50	No
Lay's Potato Chips Classic	40	Veg/Fruit	Not Recommended	1.50	No
Mars	53	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchys Nacho Cheese	55	Grains	Not Recommended	1.50	No
Old Dutch Potato Chips Ketchup	40	Veg/Fruit	Not Recommended	1.50	No

Old Dutch Potato Chips Salt and Vinegar	40	Veg/Fruit	Not Recommended	1.50	No
Quaker Yogurt Bar	35	Grains	Not Recommended	1.25	No
Rold Gold Pretzel	47	Grains	Not Recommended	1.50	No
Skor	39	Candies	Not Recommended	1.75	No
Smarties	50	Candies	Not Recommended	1.75	No
Snickers	59	Candies	Not Recommended	1.75	No
Super Wormies	142	Candies	Not Recommended	2.25	No
THUNDERBIRD					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Dutch Crunch Jalapeno and Cheddar	40	Veg/Fruit	Choose Least	1.50	No
English Bay Milk Chocolate Chip	43	Grains	Choose Least	2.50	No
Miss Vickie's Jalapeno	43	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sea Salt and Malt Vinegar	43	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sweet Chili and Sour Cream	43	Veg/Fruit	Choose Least	1.50	No
Munchies Nuts	60	Nut/Seed	Choose Least	1.75	No
Nature Valley Crunchy Chocolate	35	Grains	Choose Least	1.75	Yes
Old Dutch Sour Cream and Green Onion	40	Veg/Fruit	Choose Least	1.50	No
Sun Chips Harvest Cheddar	43	Grains	Choose Least	1.50	Yes
Baked Lays Bar-B-Q	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Baked Lays Regular	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Baked Lays Ruffles	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Excel Gum	2.8	Candies	Choose Sometimes	1.50	No
Norma's Chocolate Chunk Cookie	40	Grains	Choose Sometimes	2.50	No
Welches Fruit Snack	64	Candies	Choose Sometimes	1.50	No
Coffee Crisp	50	Candies	Not Recommended	1.75	No
Dutch Crunchy Nacho Cheese	50	Grains	Not Recommended	1.50	No
Fritos Hoops Bar-B-Q	50	Veg/Fruit	Not Recommended	1.50	No
Hershey's Almond	43	Candies	Not Recommended	1.75	Yes
Hickory Sticks	50	Veg/Fruit	Not Recommended	1.50	No
Kit Kat	50	Candies	Not Recommended	1.75	No
Lays Bar-B-Q	43	Veg/Fruit	Not Recommended	1.50	No
Lays Classic	43	Veg/Fruit	Not Recommended	1.50	No
Lays Ketchup	43	Veg/Fruit	Not Recommended	1.50	No
Mars	53	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Original Munchies	43	Grains	Not Recommended	1.50	No
Quaker Yogurt Chewy Vanilla	35	Grains	Not Recommended	1.75	Yes
Reese	51	Candies	Not Recommended	1.75	No
Rold Gold Pretzels	50	Veg/Fruit	Not Recommended	1.50	Yes
Ruffles All Dressed	43	Grains	Not Recommended	1.50	No
Smart Food White Cheddar popcorn	50	Grains	Not Recommended	1.75	No
Smarties	50	Candies	Not Recommended	1.75	No
Sour Tongue Tingle	143	Candies	Not Recommended	2.25	No
BROCKHALL					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Dutch Crunch Jalapeno and Cheddar	40	Veg/Fruit	Choose Least	1.50	No
Food Should Taste Good Sweet Potato Chips	40	Veg/Fruit	Choose Least	1.50	Yes
Miss Vickie's sea salt and malt vinegar	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sweet Chili and Sour Cream	40	Veg/Fruit	Choose Least	1.50	No
Stacy's Pita Chips Parmesan Garlic and Herb	38.9	Grains	Choose Least	1.50	No
Sun Chips garden salsa	40	Grains	Choose Least	1.50	Yes
Sun Chips Harvest Cheddar	40	Grains	Choose Least	1.50	No
Welches Fruit Snacks	64	Veg/Fruit	Choose Least	1.50	No
English Bay Cookie	43	Grains	Choose Sometimes	1.50	No

Lays baked BBQ	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Norma's Cookie	40	Grains	Choose Sometimes	1.50	No
Riceworks Sea Salt Gourmet Brown Rice Crisp	43	Grains	Choose Sometimes	1.50	No
Ruffles baked cheddar and sour cream	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Aero	42	Candies	Not Recommended	1.75	No
Coffee Crisp	50	Candies	Not Recommended	1.75	No
DanDPak Mountain Trail Mix	100	Nuts	Not Recommended	2.25	No
Fritos Hoops Bar-B-Q	50	Veg/Fruit	Not Recommended	1.50	No
Hershey's Almond	43	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Reese	51	Candies	Not Recommended	1.75	No
Skor	39	Candies	Not Recommended	1.75	No
Super Wormies	142	Candies	Not Recommended	2.25	No
Cheetos Crunchy	51	Grains	Not Recommended	1.50	No
Hershey's Cookies and Cream	43	Candies	Not Recommended	1.75	No
Hickory Sticks	50	Grains	Not Recommended	1.50	No
Lays BBQ	40	Veg/Fruit	Not Recommended	1.50	No
Snickers	53	Candies	Not Recommended	1.75	No
BUCHANAN 2 nd (B)					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Dutch Crunch Kettle Cooked Jalapeno Cheddar	40	Veg/Fruit	Choose Least	1.50	No
English Bay Milk Chocolate Chip	43	Grains	Choose Least	1.50	No
Friday's Potato Skin Cheddar and Bacon	49.7	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Jalapeno	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's sea salt and malt vinegar	40	Veg/Fruit	Choose Least	1.50	No
Old Dutch Sour Cream and Green Onion	40	Veg/Fruit	Choose Least	1.50	No
Riceworks Sweet Chilli Rice Crisp	43	Grains	Choose Least	1.50	No
Sunchip French Onion	40	Grains	Choose Least	1.50	No
Welches Fruit Snacks	64	Veg/Fruit	Choose Least	1.50	No
Excel	2.8	Candies	Choose Sometimes	1.50	No
Nutri Grain Cereal Bar Mixed Berry	37	Grains	Choose Sometimes	1.25	No
Nutri Grain Cereal Bar Raspberry	37	Grains	Choose Sometimes	1.25	No
Ruffles Baked Chips Cheddar and Sour Cream	32	Veg/Fruit	Choose Sometimes	1.50	No
Hersheys Almond	43	Candies	Not Recommended	1.75	No
Lay's Potato Chips Classic	40	Veg/Fruit	Not Recommended	1.50	No
Old Dutch Crunchys Nacho Cheese	55	Grains	Not Recommended	1.50	No
Reese	51	Candies	Not Recommended	1.75	No
Skittles	61.5	Candies	Not Recommended	1.75	No
Skor	39	Candies	Not Recommended	1.75	No
Smart Food White Cheddar popcorn	45	Grains	Not Recommended	1.75	No
Super Wormies	142	Candies	Not Recommended	2.25	No
Burger King Onion Rings	50	Grains	Not Recommended	1.50	No
Caramilk	52	Candies	Not Recommended	1.75	No
Hershey's Cookies and Cream	43	Candies	Not Recommended	1.75	No
Kit Kat	43	Candies	Not Recommended	1.75	No
Lays BBQ	40	Veg/Fruit	Not Recommended	1.50	No
Old Dutch salt and vinegar	40	Veg/Fruit	Not Recommended	1.50	No
Rold Gold Pretzels	47	Grain	Not Recommended	1.50	Yes
Snickers	53	Candies	Not Recommended	1.75	No
COMMON RESIDENCE (MARINE DRIVE)					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Miss Vickie's Sweet Chili & Sour Cream	43	Veg/Fruit	Choose Least	1.50	No
Nature Valley Trail Mix	30	Grain	Choose Least	1.25	No
RiceWorks Sweet Chili	43	Grain	Choose Least	1.50	No

Ruffles Sour Cream'n Onion	40	Veg/Fruit	Choose Least	1.50	No
Stacy's simply Naked Baked	38.9	Veg/Fruit	Choose Least	1.50	No
Sun Chips French Onion	40	Veg/Fruit	Choose Least	1.50	No
Sun Chips Garden Salsa	40	Grain	Choose Least	1.50	No
Sun Chips Harvest Cheddar	40	Grain	Choose Least	1.50	Yes
Welches Fruit Snack	64	Candies	Choose Least	1.50	No
Yogurt Blueberry Bar	35	Grain	Choose Least	1.25	No
Apple Chips	22	Veg/Fruit	Choose Sometimes	1.50	No
Chocolate Chunk	30	Grain	Choose Sometimes	1.75	No
Crispers Ranch Baked	50	Veg/Fruit	Choose Sometimes	1.50	No
Excel	2.8	Candies	Choose Sometimes	1.50	No
Lay's Bar-B-Q Baked	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Lays Creamy Dill Baked	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Lay's Original Baked	32	Veg/Fruit	Choose Sometimes	1.50	Yes
Norma's chocolate chunk cookie	100	Grains	Choose Sometimes	1.50	No
Cheetos Crunchy	57	Veg/Fruit	Not Recommended	1.50	No
Coffee Crisp	50	Candies	Not Recommended	1.75	No
Doritos Nacho Cheese	45	Grain	Not Recommended	1.50	No
Hershey's Cookies'n Cream	43	Candies	Not Recommended	1.75	No
Hickory Sticks Original	47	Veg/Fruit	Not Recommended	1.50	No
Lays Bar-B-Q	40	Veg/Fruit	Not Recommended	1.50	No
Lays Ketchup	40	Veg/Fruit	Not Recommended	1.50	No
Lindt Excellence Dark Chocolate	30	Candies	Not Recommended	1.75	No
Oh Henry	62.5	Candies	Not Recommended	1.75	No
Old Dutch Crunchys Nacho Cheese	55	Veg/Fruit	Not Recommended	1.5	No
Reese	51	Candies	Not Recommended	1.75	No
Rold Gold Pretzels	47	Grain	Not Recommended	1.50	Yes
Skittles Berry Explosion	61.5	Candies	Not Recommended	1.75	No
Skor	39	Candies	Not Recommended	1.75	No
Smartfood White Cheddar Popcorn	45	Grain	Not Recommended	1.75	No
Snickers	53	Candies	Not Recommended	1.75	No
Super Wormies	142	Candies	Not Recommended	2.25	No

Table 2 – Inventory of VendMaster's Sample Product List

VENDMASTER SAMPLE PRODUCT LIST			
Product	Size (g)	Food Group	Category
Blue Diamond Almonds - Smokehouse	23	Nut/Seed	Choose Most
Cliff Energy mixed	55	Energy Bars	Choose Most
Frito Lay Munchies - Honey sweet Trail	40	Nut/Seed	Choose Most
Kashi Chewy granola	35	Grains	Choose Most
Kellogg's All-Bran Bars - Original	30	Grains	Choose Most
Mrs. Palmers Pantry Pita Chips Cinnamon	50	Grains	Choose Most
Mrs. Palmers Pantry Pita Chips Parmesan & Garlic	50	Grains	Choose Most
Mrs. Palmers Pantry Pita Chips Salt & Vinegar	50	Grains	Choose Most
Norma's Bakery – Cranberry Flax Bar	45	Grains	Choose Most
Perfect 10 Bar - Apple & Cinnamon	50	Nut/Seed	Choose Most
All-Bran Bars Chocolate Chip	30	Grains	Choose Sometimes
All-Bran Bars Honey Nut	30	Grains	Choose Sometimes
All-Bran Bars Oatmeal Cinnamon	30	Grains	Choose Sometimes
Kellogg's – NutriGrain Brown Sugar Cinnamon	30	Grains	Choose Sometimes
Kellogg's – Rice Krispies Squares	37	Grains	Choose Sometimes
Kellogg's Nutri-Grain Munch'ems Honey Oat	30	Grains	Choose Sometimes
Kellogg's Nutri-Grain Cereal Bar Apple Cinnamon	37	Grains	Choose Sometimes
Kellogg's Nutri-Grain Cereal Bar Blueberry	37	Grains	Choose Sometimes
Kellogg's Nutri-Grain Cereal Bar Mixed Berry	37	Grains	Choose Sometimes
Kernels Popcorn Butter Salt	25	Grains	Choose Sometimes

Nature Valley Crunchy Granola Bar Apple Crisp	42	Grains	Choose Sometimes
Nature Valley Crunchy Granola Bar Maple Brown Sugar	42	Grains	Choose Sometimes
Norma's Bakery – Chocolate Chip Cookie	40	Grains	Choose Sometimes
Norma's Bakery – Chocolate Chip Peanut Cookie	40	Grains	Choose Sometimes
Norma's Bakery – Chocolate Crispy Treat	48	Grains	Choose Sometimes
Norma's Bakery – Crispy Treat	48	Grains	Choose Sometimes
Norma's Bakery – Oatmeal Raisin Cookie	40	Grains	Choose Sometimes
Norma's Bakery – Rainbow Cookie	40	Grains	Choose Sometimes
Norma's bakery Smart Bites Chocolate cookie	40	Grains	Choose Sometimes
Quaker Oat to Go Cinnamon Roll	47	Grains	Choose Sometimes
Quaker Oat to Go Oat & Honey	47	Grains	Choose Sometimes
Quaker Oat to Go Wildberry	47	Grains	Choose Sometimes
Cheesies, Corn Snack	28	Grains	Choose Least
Kellogg's Special K Cereal Bar	30	Grains	Choose Least
Kellogg's Original Cereal Bars	22	Grains	Choose Least
Munchies Honey Roasted Peanut	60	Nut/Seed	Choose Least
Munchies Salted Peanuts	60	Nut/Seed	Choose Least
Munchies Smoked Almonds	57	Nut/Seed	Choose Least
Nature Valley Chewy Nut Bar Sweet & Salty Almond	35	Nut/Seed	Choose Least
Nature Valley Chewy Nut Bar Sweet & Salty Peanut	35	Nut/Seed	Choose Least
Sun Chips French Onion	43	Grains	Choose Least
Sun Chips Garden Salsa	43	Grains	Choose Least
Sun Chips Harvest Cheddar	43	Grains	Choose Least
All top selling bars	50	Other	Not Recommended
Cheerios Snack Mix	28	Grains	Not Recommended
Dan-D-Pak Rice Crackers Original	80	Grains	Not Recommended
Doritos Cool Ranch	50	Grains	Not Recommended
Doritos Spicy Nacho	50	Grains	Not Recommended
Doritos Sweet Chill Heat	50	Grains	Not Recommended
General Mills Cheerios Snack Mix Honey Nut Crunch	50	Grains	Not Recommended
Mountain Trail Mix	100	Nut/Seed	Not Recommended
Old Dutch Cheese Pleasers	50	Grains	Not Recommended
Rold Gold Classic Style - Thins	50	Grains	Not Recommended
Sierra Mountain Mix	100	Nut/Seed	Not Recommended

Table 3 – Inventory of Natural Source Vending's Creekside Community Centre Vending Machine

CREEKSIDE (NATURAL SOURCE VENDING)				
Product	Size (g)	Food Group	Category	Price (\$)
Clif Kid Zbar	36	Energy Bars	Choose Most	1.75
Larabar Fruit and Nut Energy Bar	48	Nuts/Seeds	Choose Most	2.25
Mrs Palmer's Pantry Pita Chips Cinnamon	50	Grains	Choose Most	1.75
Mrs Palmer's Pantry Pita Chips Parmesan and Garlic	50	Grains	Choose Most	1.75
Mrs Palmer's Pantry Pita Chips Sea Salt and Vinegar	50	Grains	Choose Most	1.75
Planter's Almond	50	Nuts/Seeds	Choose Most	2.00
Trumps Food Banana Slims	20	Veg/Fruit	Choose Most	1.75
Deep River Baked Fries Jalapeno & Cheddar	21	Veg/Fruit	Choose Sometimes	1.50
Deep River Baked Fries Mesquite BBQ	21	Veg/Fruit	Choose Sometimes	1.50
HevyD's Kettle Corn	35	Grains	Choose Sometimes	1.75
Palace Deli Dry Roasted Edamame	30	Meat/Alternatives	Choose Sometimes	1.75
Popchips Barbeque	23	Veg/Fruit	Choose Sometimes	1.75
Popchips Originals	23	Veg/Fruit	Choose Sometimes	1.75
Popchips Sour Cream	23	Veg/Fruit	Choose Sometimes	1.75
Praeventia Chocolate Chip Cookies	30	Grains	Choose Sometimes	1.50
Clif Bar	68	Energy Bars	Choose Least	2.25
Clif Builder's Bar	68	Energy Bars	Choose Least	2.50
Nature's Path Envirokidz Organic Crispy Rice Bar	28	Grains	Choose Least	1.75

Que Pasa Tortilla Chip Tomato Salsa	50	Grains	Choose Least	1.75
Que Pasa Tortilla Chip Jalapeno Cheddar	50	Grains	Choose Least	1.75
RiceWorks Brown Rice Crisps Salsa Fresca	43	Grains	Choose Least	1.75
RiceWorks Brown Rice Crisps Sweet Chili	43	Grains	Choose Least	1.75
Barkley's Chocolate Truffle Bar	50	Candies	Not Recommended	2.00
Dan-D-Pak Rice Crackers Original	80	Grains	Not Recommended	2.00
Dan-D-Pak Sierra Mountain Mix	100	Nuts/Seeds	Not Recommended	2.50

Table 4 – Inventory of Gage Residence’s Vending Machine Undergoing a Healthy Option Trial-Run

Healthy Gage					
Product Name	Size (g)	Food Group	Category	Price (\$)	Health ✓
Trumps Food Banana Slims	20	Veg/Fruit	Choose Most	1.75	No
Lay's Baked Chips BarBQ	32	Veg/Fruit	Choose Sometimes	1.50	No
Lay's Baked Chips Original	32	Veg/Fruit	Choose Sometimes	1.50	No
Ruffles Baked Chips Cheddar & Sour Cream	32	Veg/Fruit	Choose Sometimes	1.50	No
Quaker Oat to Go Oat & Honey	47	Grains	Choose Sometimes	1.50	No
Planters Peanuts Barbeque	49	Nuts/Seeds	Choose Sometimes	1.50	No
Planters Peanuts Salted	49	Nuts/Seeds	Choose Sometimes	1.50	No
Quaker Oat to Go Cinnamon Roll	47	Grains	Choose Sometimes	1.50	No
Quaker Oat to Go Wildberry	47	Grains	Choose Sometimes	1.50	No
Billy Bob's Beef Jerky	15	Meat/Alternatives	Choose Sometimes	2.25	No
Norma's Cookie	40	Grains	Choose Sometimes	1.50	No
English Bay Cookie	43	Grains	Choose Sometimes	1.50	No
Miss Vickie's Sea Salt and Malt Vinegar	40	Veg/Fruit	Choose Least	1.50	No
Miss Vickie's Sweet Chili and Sour Cream	40	Veg/Fruit	Choose Least	1.50	No
Sunchip Harvest Cheddar	40	Grains	Choose Least	1.50	Yes
Old Dutch Crunchys Nacho Cheese	55	Grains	Not Recommended	1.75	No
Smartfood Popcorn White Cheddar	45	Grains	Not Recommended	1.75	No
Cheetos Cruchy Cheese	56.7	Grains	Not Recommended	1.75	No
Christies Corn Nuts	48	Grains	Not Recommended	1.50	No
Super Wormies	142	Candies	Not Recommended	2.25	No
Dan-D-Pak Raw Energy Mix	100	Nuts/Seeds	Not Recommended	2.25	No
Lay's Potato Chips BarBQ	40	Veg/Fruit	Not Recommended	1.50	No
Reese	51	Candies	Not Recommended	1.75	No
KitKat	50	Candies	Not Recommended	1.75	No
Cadbury Burnt Almond	42	Candies	Not Recommended	1.75	No
Hershey's Cookies 'n' Cream	43	Candies	Not Recommended	1.75	No
Snickers	59	Candies	Not Recommended	1.75	No
Hershey's Twizzlers Licorice Candy	18	Candies	Not Recommended	1.75	No
Cadbury Dairy Milk	42	Candies	Not Recommended	1.75	No

Appendix B - Percentages of items in each of the categories of the following vending machines

