UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

# UBC Food Services Healthy Beverage Initiative: In-person Student Survey

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## Executive Summary

The UBC Healthy Beverage Initiative (HBI) was created under the UBC Wellbeing Strategic Framework to encourage drinking tap water and reduce the consumption of sugar-sweetened beverages (SSB) across UBC campuses in an effort to support its population's collective health and well-being. While many activities, campaigns and projects have since been completed under the HBI, the initiative still reports a lack of robust understanding of the factors driving beverage choice among the UBC population, and identifies improving this understanding as an important factor for informing future strategic planning.

The present project therefore set out to improve the understanding of factors contributing to beverage choice among the UBC population. Using the theory of planned behaviour, our approach was centered on exploring the contributing elements of attitude, social norms and perceived behavioural control, and their collective impact on beverage choice. Project outputs included qualitative interviews with 50 members of the UBC population; a visual photo audit of 18 campus locations assessing beverage product offerings; and an observational audit of 180 members of the UBC population on beverage choice across multiple locations and times of day.

Key findings from interviews revealed that caffeine, perceived health, and time of day or seasonality were key motivators for beverage choice, while price and accessibility were primary barriers to making less SSB choices. The vast majority (80%) of participants associated unhealthy beverages with higher sugar content. SSBs were available at every location surveyed in the photo audit, with grocery and convenience stores offering the largest selection of SSBs compared to cafes, coffee shops, and residence cafeterias. Lastly, in the observational audit, personal water bottles, hot to-go cups, and Booster Juice or smoothie cups were the most frequently observed beverages on campus.

Based on project outputs, an evaluation plan is outlined to assess the effectiveness in achieving project objectives, and recommendations are made for future HBI efforts moving forward.

## Introduction

With the rise of sugar-sweetened beverages (SSBs) in the global market, it has become increasingly difficult to avoid purchasing drinks with added sugar on university campuses. As defined in a Cochrane Review, SSBs are “cold or hot drinks with added sugar [eg.] non-diet soft drinks, regular soda, iced tea, sports drinks, energy drinks, fruit punches, sweetened waters, and sweetened tea and coffee” (von Philipsborn et al., 2019, pp. 3). SSBs are found in campus grocery stores, cafes, fast food markets and restaurants at the University of British Columbia (UBC). This easy access to affordable SSBs has a cost though; students wishing for a more healthy lifestyle are surrounded by an environment that promotes SSB consumption. Fortunately, UBC’s Healthy Beverage Initiative (HBI) was launched after the UBC Action Framework for a Nutritionally Sound Campus was developed in 2017 in order to increase tap water consumption and to reduce the consumption of SSBs on campus (UBC Wellbeing, 2018). With the support from all major UBC food-provider stakeholders, the HBI has the potential to make a considerable impact on the health and wellbeing of UBC students and faculty.

The following intervention, in partnership with the HBI, will focus on understanding the logic behind beverage choice from UBC students and faculty through a set of in-person interviews, differing from previous quantitative survey based interventions. For this intervention, the HBI’s classification of healthy beverages based on tiers 1 (Blue), 2 (Green), 3 (Yellow) and 4 (Red), found in Appendix C, will be used as reference (UBC Wellbeing, 2018). However, it should be noted that, in general, context must be considered when determining what a healthy beverage is, as what is healthy for one person may be different for another person. This intervention will provide the HBI with qualitative data from the target audience needed to make improvements to their current initiative. With this intervention taking place during and after midterm exam season, the HBI will have time-representative data to better understand the logic behind beverage decisions made on campus. The information that will be gathered from these interviews will be used by the HBI to frame and enhance their current programming as well as help them create their HBI toolkit.

## Situational Assessment and Framework

### *Problems*

The food environment for university students is a complex and sometimes challenging system to navigate. With growing costs of rent and tuition and time-consuming demands of juggling school work and sometimes a job, the ability for students to consume nutritious, balanced diets has become increasingly difficult. On average, students are three to five times more likely to be food insecure than their working counterparts (Nguyen, 2018). In a recent survey of LFS students at UBC, 10% of students reported that they had recently gone hungry because they couldn't afford food (Nguyen, 2018). In another survey done of UBC undergraduate students, 38.5% of respondents were classified as being food insecure (Carry et al., 2019). One student reported that while they had the means to purchase food at the current date, this was only because of their large student loan, and thus by eating today they were putting their future self into deeper debt (Nguyen, 2018). Moreover, while there is a food bank at UBC, graduate students reported that they felt stigma and shame when accessing these services (Nguyen, 2018). Another student noted that the current signage and advertisement of the food bank services available were very minimal (Nguyen, 2018). Graduate students who lived off campus were found to be the most recurring users of the UBC food bank, while international students and students living on campus used it less (Nguyen, 2018)

With little time to prepare food and busy schedules requiring students to be on campus for long periods of time, it is common for students to purchase SSBs as snacks. SSBs provide students with quick energy bursts due to a high sugar content that may help them withstand long days at school. In a sample of 653 university students, 51% of respondents said that they purchase SSBs as snacks (Tam et al., 2017). While the SSB purchasing on university campuses is high, 90% of respondents stated that they wanted discounted prices on healthy food choices offered at universities. Many students lack the economic freedom to purchase nutritious foods as they are often sold at higher prices than processed foods (often higher in sugar, fat and sodium). Thus, it is integral that, in order for students to be food secure, universities receive help from the government to create food environments in which students have "physical and

economic access to […] nutritious food" (FAO, 2006). Selling healthy food items meets the accessibility need for students to achieve a nutritious and balanced diet.

The consumption of SSBs can contribute to the development of diseases such as CVD, diabetes and dental decay (Bleich & Vercammen., 2018). Furthermore, consumption of SSBs often results in weight gain. The calories from SSBs do not replace those from other foods as liquid drinks do not require mastication which stimulates satiety (Bleich, 2018). As a result, individuals continue to eat additional food in order to feel satiated. This can result in someone consuming more calories than their body needs which, if done consistently over time, can cause weight gain and increase the risk for CVD and diabetes (Bleich & Vercammen., 2018).

While it is important to address SSBs' associated health risks, it is of equal importance to recognize that interventions deterring people from consuming certain food products can exacerbate disordered eating patterns and negative attitudes towards one's body image (Woodward, 2019). Interventions to promote water consumption and other less calorie dense beverages must keep this at the center of their planning and implementation process. It is also essential to understand that many SSBs are a part of cultural traditions. Negative health messages pertaining to these food/beverage items could result in unintended negative impacts on health and wellbeing (Woodward, 2019).

***Behaviours***

Due to the high SSB consumption among university students, identifying behavioral factors that coexist with this dietary pattern will serve as a benefit when forming a proper intervention to reduce their consumption in this population.

An individuals' food selection and consumption is heavily influenced by their social interactions and physical environment. In young adulthood, food and beverage selection can change as it is a time of newly discovered independence and autonomy (Vaterlaus et al., 2015). That being said, the transition from a more dependent lifestyle to a self-reliant one is one factor that can negatively alter the dietary pattern of some university students (Kourouniotis et al., 2016). Furthermore, students tend to observe and remodel the behaviours of their peers and family members (Coleman, 1980). Therefore, it has been suggested that the social norms and eating habits of friends are what most robustly influence the eating behaviors of young adults (Pelletier, Graham &

Laska, 2014). In a cross-sectional survey of 1000 college students, Wouters et al. (2010) noted a positive association ($p<0.035$) between students' SSB consumption and the eating patterns of the people around them, especially their peers.

Despite there being discrepancies between some studies regarding the association between physical activity and SSB intake, most studies have shown that the screen-based sedentary behaviors such as computer use are associated with increased consumption of SSBs (Kremers et al., 2007). According to Gebremariam et at. (2017), the positive association between sedentary lifestyle and high intake of SSBs is mainly due to lower consumption of fruits and vegetables. Based on a study done by Park et al. (2012), a correlation was observed between prolonged screen viewing and the higher likelihood of drinking SSBs (>2 h/d [OR = 1.70 (95% CI = 1.44, 2.01); $P<0.05$]. In this cross-sectional study the results showed the inverse association between daily SSB intake and physical activity. Another causal hypothesis for SSB intake is the role of food advertisements, which affect individual's food selection and consumption (Boyland et al., 2011). By considering the exponential growth of media use among young adults, it is not surprising that their food choices have been affected.

Lastly, stress is another underlying mechanism explaining why students drink SSBs. Several studies mentioned a significant positive relationship between stress levels and SSB consumption. Sugar can stimulate the pleasure center in the brain and decrease the stress hormone, cortisol. It also activates a metabolic negative feedback pathway that reduces the stress hormone and reinforces the consumption of sweet foods and beverages (Tryon et al., 2015). Beyond these behavioural factors, there are a set of mediating factors which also influence SSB consumption.

***Mediating Factors***

Individual, interpersonal, and environmental factors are closely associated with the consumption of sugar sweetened beverages. At the individual level, the important mediating factors are nutritional knowledge and personal taste preferences. Based on a study done by Warner and Ha (2017), even though the majority of university students had adequate nutritional knowledge, they consumed at least one SSB on a daily basis [$t(228) = 3.926$, $p<0.001$]. Moreover, they discovered that taste is the primary motivator for selecting SSBs among most university students. Therefore, it was concluded that

having adequate nutritional knowledge does not reduce the consumption of SSBs in this population. Kourouniotis et al. (2016) noted that 82% of university students considered taste as a very or extremely important factor for selecting their beverages, and these students consumed sugar-containing beverages more frequently. They also indicated that there was a statistically significant positive association between taste importance and the consumption of soft drinks ($p=0.001$).

At the interpersonal level peer influence and cultural preferences can shape an individuals' food selection and consumption. At the environmental level, media exposure also plays a large role. Young adults are constantly exposed to information from advertisements on social media, particularly around food and nutrition related topics, which broadly influence their food choices and affect their overall health (Lynch, 2010). Although most people believe that food selection is simply picking the food item itself, it is, in fact, more dynamic and situational. Food selection is based on personal desires, as well as social and cultural interactions (Sobal, Bisogni, & Jastran, 2014).

Price and availability of SSBs seem to influence students' beverage purchasing behaviors. Among 6 US colleges, students mentioned that price was the second most common factor influencing their beverage selection (Block, et al., 2013). Despite there being a lack of Canadian national trend data on SSB consumption, it is suggested that both Canadian and American adolescents get a similar proportion of energy from total beverage intake (Danyliw et al., 2010). In a sample of 1650 vending machines in 11 post-secondary campuses in the US, 40-75% of machines were devoted to SSBs. Considering that dining hall operations are restricted by university operating hours, vending machine use is preferable for most students, particularly during stressful periods and late at night. However, given the generally high sugar content of the beverages sold in vending machines, they pose an environmental barrier for those wishing for a healthier lifestyle (Byrd-Bredbenner et al., 2012).

As discussed, there are several mediating factors that affect a student's choice to consume SSBs, including individual, interpersonal and environmental factors. The best data that is available for UBC students is from a survey completed by a FNH 473 team in 2018. The researchers surveyed 923 students to determine their rate of consumption and reason for choice of SSBs. According to the survey, approximately 11% of students

consume SSBs once a day and 25% consume them one to two times per week (Wright et al., 2018). The strongest mediating factors seemed to be individual factors - the factors that originate within the individual such as their knowledge, attitudes or beliefs (Hammond, 2020). The main individual reasons for SSB consumption included taste/flavour and habit, with 90% of respondents citing these as reasons for frequent consumption (Wright et al., 2018). Other individual factors cited were physiological, such as the need for an energy boost (30%) or not having a water bottle to fill (10%) (Wright et al., 2018). The only interpersonal factor cited as a reason for SSB consumption by UBC students was having friends, family or colleagues to drink with them (5%). Lastly, there were three environmental factors that played a role in student choice of SSBs on UBC campus: availability (50%), advertising and promotion (5%) and price (5%) (Wright et al., 2018).

There are limitations to this research on UBC campus as only 923 responses were recorded, which is only a fraction (1.7%) of the UBC student population. However, the researchers did work to spread the student responses between various faculties to ensure a widespread sample (Wright et al., 2018).

***Health Behaviour Theory***

The goal of this project with SEEDS and the HBI is to further understand the reasons behind beverage choices at UBC. Therefore, our intervention is informed by the theory of planned behaviour. As Wright et al. found in 2018, the majority of students surveyed cited individual factors as their main reasons for their beverage choices. The theory of planned behaviour is a model of behavioural change at the individual level, which is in line with the focus of this intervention (Hammond, 2020). This model "examines the relations between an individual's beliefs, attitudes, intentions, behaviour, and perceived control over that behaviour" (National Cancer Institute, 2005, pp. 13). As seen in appendix D, the theory of planned behaviour places behavioural intention as the most important factor in determining an individual's behaviour. Behavioural intention is described as the likelihood that an individual will perform a behaviour and it is informed by their attitude, subjective norm, and perceived behavioural control (National Cancer Institute, 2005, pp. 17).

This project focuses on the factors that influence the intention behind beverage choice in the UBC population. In order to measure attitudes (the individual's evaluation of the end behaviour) and subjective norm (whether key people in their lives approve of the end behaviour), we have formulated a set of open ended survey questions (Table 1) to be asked during in-person interviews in order to evaluate these choices (National Cancer Institute, 2005, pp. 17). In order to further measure perceived behavioural control (the belief in control over the end behaviour), a visual audit of beverages on campus will be completed. Overall, the open ended, in-person survey seeks to help the HBI further understand beverage choice at UBC in order to determine the most appropriate intervention to achieve their goals.

Table 1: Survey questions and their links to the theory of planned behaviour model

| Question | Theory of Planned Behaviour Measure |
|---|---|
| What motivates your beverage choices? | Attitude, Subjective Norm |
| What is your knowledge about healthy/unhealthy beverages? | Attitude |
| What are some barriers you face in consuming healthy beverages? | Perceived Behavioural Control |

## Project Goal and Objectives

### *Project Goal*

Improve understanding of factors that drive beverage choices among the UBC population for the Healthy Beverage Initiative.

### *Project Objectives*

*Short-term (<1 year)*

1) Improve understanding of factors determining student/staff/faculty beverage choices by interviewing 50 students by March 6, 2020.

2) Perform visual audit of 15 locations on campus by March 6, 2020 to assess beverage product offerings on UBC Vancouver campus.
3) Perform observational audit of 180 student beverage choices at three UBC Vancouver campus locations by March 6, 2020.

*Medium-Term (1-5 years)*

1) Implement visual public campaigns at all UBC food outlets to encourage maximizing consumption of tier 1, 2 & 3 beverages and minimizing consumption of tier 6 beverages by September 2022.
2) Obtain written agreement and support from all UBC food outlets to reduce %SSB availability to 15% or less of all beverage offerings by September 2023.

*Long-term (>5 years)*

1) 50% reduction in SSB consumption across UBC campuses by 2025 based on 2019 baseline (UBC Wellbeing Strategic Framework target).
    - Note: Indicators include %SSB sales and %SSB availability in outlets/vending, and % buildings that have at least one tap water fixture with bottle filling capacity

**Project Outputs & Key Findings**

***Interviews***

In conjunction with the theory of planned behaviour and in order to measure the attitudes, subjective norm, and perceived behavioural control of beverage choices made by the UBC population, we formulated three open ended questions. We surveyed 50 people on UBC campus during February and March of 2020. The individuals were recruited from coffee shops, grocery stores and other various food establishments on campus. Verbal consent to participate was obtained by the researchers prior. A complete transcript of all the interview answers can be found in appendix E. A thematic analysis of the interview data was done after the interviews were completed to determine key themes and messages found (Nowell, 2017).

In order to determine the attitude and subjective norms of the UBC population, the first question asked was “What motivates your beverage choices?”. The most common recurring themes were: 1. Caffeine 2. Water and 3. Health. Reasons for

choosing caffeinated beverages varied with some individuals choosing coffee to boost their energy and others based on the time of day and season or noting it reduced their anxiety. Water was chosen as a key motivator in beverage choice primarily because it is free but also due to seasonality (preferring hot drinks in the winter), exercise, and thirst. Health was a key motivator for 20% of respondents.

In order to further determine the attitudes of the UBC population in regards to beverage choice, the second question asked was “What is your knowledge about healthy/unhealthy beverages?”. The most common association with unhealthy beverages was sugar, with 80% of respondents citing this in their response. In contrast, water was most commonly associated with a healthy beverage (28%). The main themes seen were an association with sugar, chemicals (alcohol or artificial sweeteners), and higher calories and unhealthy beverages, compared to water and nutrients with healthy beverages. Based on responses to this question, the UBC population seems better able to describe an unhealthy beverage rather than a healthy one.

Lastly, in order to determine the perceived behavioural control of the UBC population, the third question asked was “What are some barriers you face in consuming healthy beverages?”. The two most common answers were price (54%) and accessibility/convenience (46%), with many respondents citing that it was challenging to find water stations on campus, especially in older buildings, when pressed for time between classes. When faced with the inability to find a water station, many cited that they would purchase a different beverage than bottled water as it was cheaper.

***Photo Audit***

Our second project output was a photo audit designed to help improve the understanding of current beverage offerings on campus. Eighteen campus locations were visited including campus coffee shops, grocery/convenience stores, residence cafeterias, and other cafes or food outlets (appendix F), and a total of 71 photos were taken of menus, display cases and/or fridges. A quantitative analysis involved counting the number of locations that offered each HBI beverage tier (blue, green, yellow, red), while a qualitative assessment analyzed general patterns in offerings and which location groupings offered which products (appendix F).

All locations offered at least one SSB in their menu or display case[1]. Collectively, grocery/convenience stores offered the largest SSB selection, but they also all offered bottled water, 100% fruit juice and diet sodas, and almost half offered plain milk. All coffee shops offered at least one bottled water product and 100% fruit or vegetable juice (with the exception of Tim Hortons), as well as options for unsweetened tea and coffee; however, all locations also all offered SSB products, particularly within their menu options and customizations but also in display cases (offerings in display cases were more likely to be specialty drinks from niche brands, such as kombucha, San Pellegrino, or Callister Soda Co.). Other cafes and food outlets reflected a similar pattern.

Finally, SSBs were offered in all three residence cafeterias, but they also collectively had the largest variety of non-SSB options, particularly in regards to self-serve beverage options. All locations offered bottled water, and two cafeterias offered self-serve flavoured water. All locations offered self-serve drip coffee and tea, as well as plain milk. Yellow tier beverage options were also present in all three cafeterias including diet sodas, 100% fruit juices, and chocolate milk.

[1]Upon further review after this report was submitted Toten did not have SSB's available therefore 17/18 of the locations carried SSB's instead of 18.

There are a few limitations to note in our photo audit. First, we only documented beverage options at one point in time, and it could be possible that certain items were out of stock (in any of the HBI tiers). Second, availability does not indicate sales popularity, so actual beverage purchasing patterns cannot be deduced from the photo audit alone. Finally, our analysis did not follow any particular method as no appropriate methods could be identified through the literature, but this presents the possibility that certain potentially valuable elements were not assessed as we opted to carry out a more general analysis of patterns due to time and resource limitations.

From this photo audit, it is apparent that SSBs are unavoidable on campus. Given that the majority of red tier beverages are sold in grocery/convenience stores, these stores could be targeted first when looking to reduce the sale of SSBs. Additionally, the menus in cafes could highlight healthier beverage options rather than customizable SSBs.

***Observational Audit***

We performed an observational audit to address our third short-term objective in order to analyze the current beverage consumption pattern among the UBC population. We elected three beverage-selling locations, including the Nest, Place Vanier, and the Life building and performed the audit at each location during two time periods: once from 11 AM to 1 PM, and once from 4 PM to 6 PM. Prior to the audit we prepared a list including 19 different beverage items (appendix G), and decided to observe and record the beverage choices of 30 individuals who were exiting the building.

A total of 180 data points were collected and categorized based on the HBI beverage tiers. Analysis of the pooled data shows that in-hand personal water bottles, hot to-go cups, and Booster Juice/smoothies are the three most common beverage choices. They account for 19.1%, 16.9%, and 10.4% of the total pool, respectively; and are classified under the Blue, Green and Red tiers, respectively. However, analysis in terms of the total data points under each tier, shows that green and blue-coded beverages are the most popular items among UBC students, accounting for 39.4% and 25% of the total pool, respectively. While the red and the yellow-coded beverages are the least favourable ones, accounting for 22.7% and 7.7% of the total pool.

To investigate the potential effects of time and location on the students' beverage consumption patterns, we have derived three separate bar graphs based on each location's data (appendix G). Variations can be observed within each location as well as between the three locations with respect to the type of beverage that the students were carrying. The bar graph of the Nest building indicates that the majority of students had tea/coffee in the morning, while in the afternoon they mostly had soft drinks or chocolate milk. However, the bar graph of the Life building illustrates that regardless of the time of day, most of the students had coffee/tea in their hands from Starbucks. Finally, in Place Vanier, personal bottled water was the most popular item. One possible explanation for these variations can be the difference in accessibility to restaurants, coffee shops, vending machines and gym facilities in each location.

It is worth noting that we had some assumptions and limitations in the beginning and during our data collection. We noticed that some individuals left the buildings carrying multiple drinks. Therefore, we decided to count only one beverage type per

person to avoid double counting. We also observed some individuals who purchased a drink but didn't leave the building; those beverages were not added to our data set. Additionally, in some instances it was difficult for us to understand the content of the beverage containers, especially when the students were using a personal to-go cup. There is also a chance that we double counted some individuals as they may have re-entered the building and then exited again. Finally, we have missed those who put their beverages inside their bag when exiting the buildings. These barriers must be considered as a potential cause of systematic bias in our results.

**Evaluation Plan**

In order to evaluate our short term project outcomes we decided to survey our SEEDS and HBI contacts Melissa and David to determine if their knowledge before and after our project had changed. The group determined the questions based on our short term outcomes and the associated outputs ensuring that all areas were covered, these can be found in Table 2.

Table 2: Outcome evaluation questions

| Short Term Outcome | Evaluation Question* |
|---|---|
| Improve understanding of factors determining student/staff/faculty beverage choices by interviewing 50 students by March 6, 2020 | Before this project's completion, how would you rate your understanding of the motivations behind the UBC populations beverage choice out of 5? |
| | After this project's completion, how would you rate your understanding of the motivations behind the UBC populations beverage choice out of 5? |
| | Before this project's completion, how would you rate your understanding of the UBC population's knowledge of healthy beverages out of 5? |
| | After this project's completion, how would you rate your understanding of the UBC population's knowledge of healthy beverages out of 5? |

| | |
|---|---|
| | Before this project's completion, how would you rate your understanding of the barriers UBC population's face in consuming healthy beverages out of 5? |
| | After this project's completion, how would you rate your understanding of the barriers UBC population's face in consuming healthy beverages out of 5? |
| Perform visual audit of 15 locations on campus by March 6, 2020 to assess beverage product offerings on UBC Vancouver campus. | Before this project's completion, how would you rate your understanding of the offering of beverages on UBC's campus out of 5? |
| | After this project's completion, how would you rate your understanding of the offering of beverages on UBC's campus out of 5? |
| Perform observational audit of 180 student beverage choices at three UBC Vancouver campus locations by March 6, 2020 | Before this project's completion, how would you rate your understanding of the general beverage choices of the UBC population out of 5? |
| | After this project's completion, how would you rate your understanding of the general beverage choices of the UBC population out of 5 |

*1 = no understanding, 5 = complete understanding

A limitation in our evaluation is due to unforeseen circumstances such as the COVID-19 isolation and other project deadlines for Melissa and David, they were unable to review the data and complete our survey before the completion of this report. However, we feel confident that the information gathered from our outputs will help to better inform the HBI on the motivations behind beverage choices of the UBC population.

## Conclusion

To support the wellbeing of the UBC community and create a nutritionally sound environment, the HBI was adopted under the UBC Wellbeing Strategic Framework with the aim of encouraging water consumption while decreasing SSB intake in the UBC population. This project was created to improve understanding of factors that drive beverage choice among the UBC population.

In order to collect data, three different approaches were pursued. Interviews were conducted to understand factors that influence beverage choice. The results indicated caffeine and water are major themes for beverage choices at UBC. The majority of respondents believe sugar, alcohol and higher calorie content are associated with unhealthy beverages, while 28% indicated water as a healthy beverage option. Most students expressed the price of bottled water and lack of access to water stations as the most common barriers for healthy beverage consumption.

A photo audit of 18 campus locations was completed to assess beverage offerings at UBC[2]. The result indicated that grocery/convenience stores offer the largest selection of SSBs. Though all locations offer bottled water, they also offered SSBs containing more than 8g sugar in one portion. The third approach was an observational audit of 180 individuals analysing beverage consumption patterns at UBC. Personal water bottles, hot to-go cups and Booster juice/smoothies are the most common beverage choices among students indicating that the majority of students prefer green and blue-coded beverages.

We value our team organization and the skills that we learned through this project from plotting the Logic Model to gathering and analyzing data. Based on the data collected we recommend the HBI advocate for more water stations across campus and focus on informing students about what constitutes a healthy beverage. These recommendations will help to complete our long and medium term objectives and along with the data collected be advantageous for the HBI and SEEDS in their future decisions.

[2]Upon further review after this report was submitted Toten did not have SSB's available therefore 17/18 of the locations carried SSB's instead of 18.

**Author Contributions**

The team equally contributed to project planning, meeting organization, and presentations throughout the term. Data collection for the survey, photo audit and visual audit were all split equally between the five team members, interviewing 10 people, taking photos from three locations, and auditing beverage choices at two locations.

The additional individual contributions to the project were split up to ensure a substantial contribution by each team member. EC communicated by email with the HBI and SEEDS contacts, researched and drafted the mediation factors and health behaviour theory portion of the situational analysis, completed part of the thematic analysis on the interview data and drafted the report section for this output, drafted the evaluation plan, and contributed to final edits on the report.

JM drafted the introduction and part of the photo audit output in the report, completed part of the thematic analysis for the photo audit, was the primary editor for the submission of sections 4, 5, and 6, created the infographic and contributed to the final edits for the report.

SA researched and drafted the mediating factors and behaviors section of the situational assessment, evaluated the observational audit data and plotted its corresponding bar graphs and drafted the report section for this part, as well as wrote the conclusion section of the report.

TR was responsible for filling out and submitting team evaluation forms, drafted the project goal and objectives, co-evaluated the photo audit and wrote its corresponding sections in the final report, wrote the executive summary, and also contributed to final edits.

MK researched and drafted the problem section of the situational assessment, completed part of the thematic analysis on the interview data and drafted part of the report section for this output.

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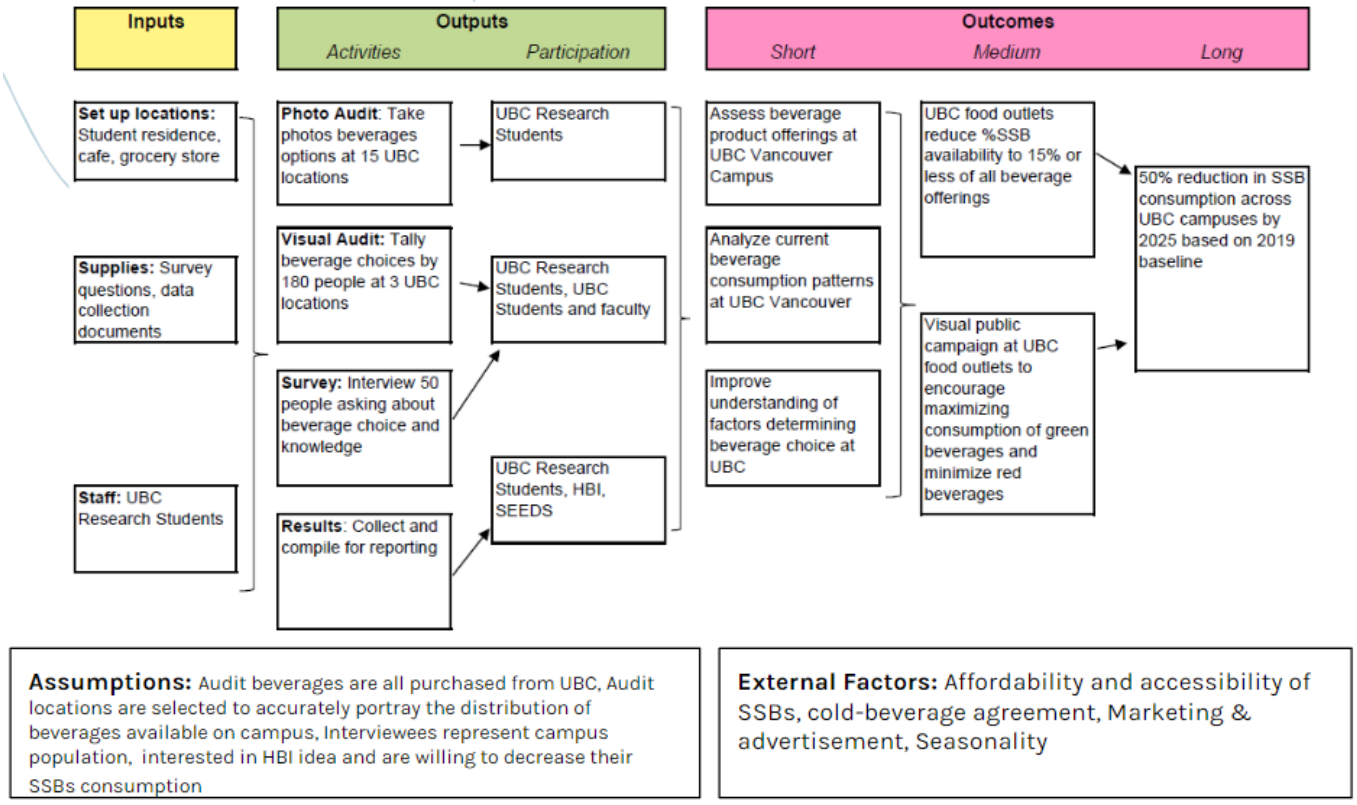
## Appendices

### *Appendix A: Project Logic Model*



***Appendix B: Project Infographic***

# UBC Food Services Healthy Beverage Initiative

Jessica Maddox, Erica Cahill, Sarah Aminian,
Tanya Schwab, Mikaela Kroeker

## Our Project with the HBI

A group of five UBC students worked with the UBC Food Services Healthy Beverage Initiative (HBI) to conduct qualitative research on beverage choices made on campus. Students and faculty were asked to explain their reasoning behind beverage selection, their knowledge of healthy beverages and any known barriers on campus for healthy beverage consumption. Photo and visual audits were also conducted to gauge where the consumption of sugar sweetened beverages (SSB) is most prominent on campus.

We are grateful to have had this opportunity to work with the HBI. Throughout the project, we felt our opinions as students were well-respected as we were given the freedom to conduct research based on our student experiences. Sarah and Melissa , thank you for your prompt responses to our questions and concerns throughout this project and for putting so much trust in us.

## What We Learned

Throughout this process we have learned to value qualitative research. When the HBI asked us to have "casual conversations" with students and faculty on campus for data collection, we were apprehensive. However, this method proved to be very insightful as we learned about barriers on campus that otherwise wouldn't have been considered.

We also learned about the importance of communication between ourselves and our community partner. Given the freedom we had in conducting this project, it was essential that we as a team worked together by communicating frequently to ensure we met our project goals and objectives. To continue moving forward with the project, we did not hesitate to reach out to the HBI for help.


## Public Health Nutrition in the Community

From our time working with the HBI, we were able to gain an understanding of the value of baseline research which leads to greater public health nutrition changes. To 'do' public health nutrition in the community requires communication between stakeholders, an understanding of the needs of the target population and having achievable goals and objectives. Our experience has brought to light all of these components and we now feel much more prepared to enter the world of public health nutrition in the future. We feel excited that the HBI now has a better grasp on campus beverage consumption and that this data can be used to achieve their goals.

## *Appendix C: HBI's classification of healthy beverages*

| Water* | |
|---|---|
| Tea & Coffee (Hot & Cold) | Plain Milk & Alternatives |
| – Tea** (unsweetened)<br>– Coffee** (unsweetened) | – Plain milk<br>– Unsweetened plant-based milk alternatives |

| Lightly Sweetened Beverages | Non-Calorically Sweetened Beverages*** | Sugary with Naturally Occurring Nutrients |
|---|---|---|
| – 8 g of sugar or less per portion size sold | – Zero calorie soda<br>– Non-calorically sweetened fortified water<br>– Diet iced tea | – 100% fruit/vegetable juice<br>– Chocolate milk |

| Sugar Sweetened (SSBs) Without Naturally Occurring Nutrients | |
|---|---|
| – Soft drinks<br>– Fruit drinks (less than 100% fruit juice)<br>– Energy drinks<br>– Calorically sweetened fortified water (eg. Vitamin Water) | – Lemonade drinks<br>– Sweetened iced tea<br>– Sports drinks**** |

## *Appendix D: Theory of Planned Behaviour Model*

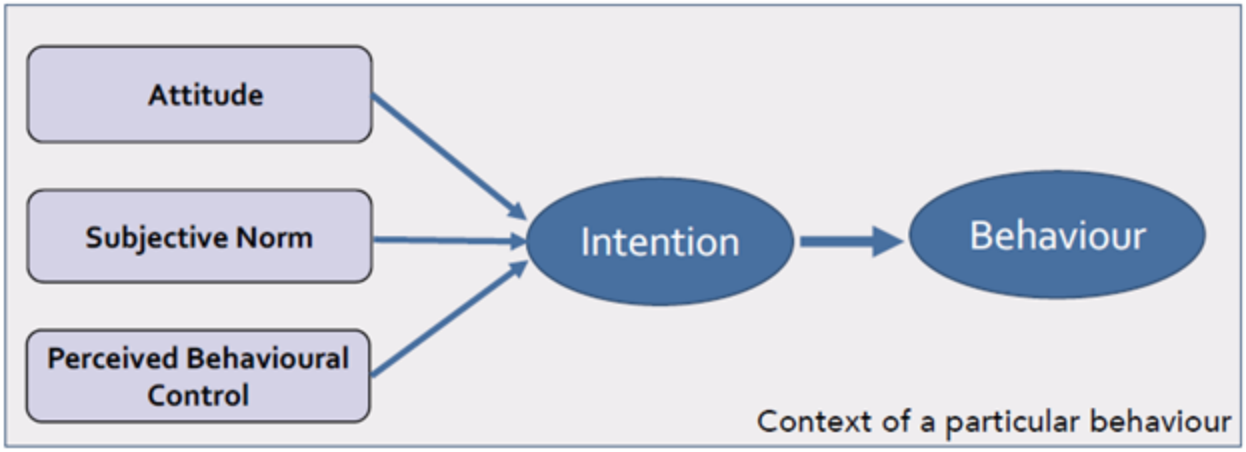



Figure 1: A visual example of how the components of the theory of planned behaviour (attitude, subjective norm, and perceived behavioural) influences an individual's behavioural intention, leading to their behaviour (Hammond, 2020)

***Appendix E: Thematic Analysis of Interview Data***

**Question 1: What motivates your beverage choices?**

Summary:

- Drinks are chosen based off of how much energy they will provide someone with (ie if they are feeling tired, not energy in the terms of kcal)
- Want minimal to no added sugar
- Caffeine content

Number of respondents mentioning:

| | | |
|---|---|---|
| Taste (17) | Price (7) | Social (3) |
| Coffee/Caffeine (16) | Energy (7) | Alcohol (1) |
| Water (13) | Sugar (7) | |
| Health (10) | Convenience (6) | |

Theme Legend:

| | | |
|---|---|---|
| Taste | Caffeine | Convenience |
| Price | Alcohol content | Health |
| Water | Energy | Social Reasons |
| Sugar Content | Calories | |

| |
|---|
| Her energy levels. If she needs coffee or tea. Depends on how much caffeine there is and how much she needs. How hydrated she feels. Favorite drink: Water from the sink because it's free! Coffee from Great Dane. |
| Whatever is the cheapest. Whatever doesn't have milk in it. Don't actively seek out extra sugar. But if had to choose between more or less sugar, would choose the sugary one. Also, depends on if he wants carbonated drinks or not. Especially because he doesn't buy drinks on campus often. |
| Whatever nutrients she's seeking; caffeine or juice after dance. Otherwise, would choose water. |
| Social activities. If on his own, will make own tea but otherwise, if people want to socialize, he'll go get a coffee. |
| Being tired, having a headache and for social reasons. |
| Quality and taste |
| Quality and availability |
| Stress level |
| Situation; at a restaurant or just finished exercising |
| Ease, convenience, sugar content |
| Main motivations are: how thirsty I am (ex. really thirsty = water), what my energy levels are (coffee), and price |
| Motivations are trying to choose a healthy option and energy levels |
| Taste and the amount of caffeine in the beverage |
| Mainly taste and things that will give me energy throughout the long school days |

| |
|---|
| What my day looks like, if it is the morning and I need energy I have coffee, if I am going to the gym I will have water or pre-workout. I also try to drink at least 2L of water a day |
| My taste preferences and looking for a healthy option, trying to mainly choose water because that is the healthiest in my opinion and also really good for skin health |
| Typically whatever I'm wanting at the time. Sometimes the healthier choice. |
| Mostly cost, but also health and sometimes caffeine if I need energy |
| As I get older its mostly choose my beverages based on healthy choices |
| What is good for me, affordable, and good for the planet |
| Want caffeine in the morning. Want minimal or no sugar in other choices. |
| Health and Taste |
| Energy - in the morning I always have a coffee. 2. Exercise- when I drink the most water. 3. Taste - I drink pop sometimes 4. Social- alcohol |
| Caffeine content, cost and availability |
| Atmosphere |
| health |
| health |
| cost, flavour |
| Calories, access and lifestyle/fitness goals |
| Thirst and ease of access |
| Calories, being mindful of high-calorie drinks (e.g. Starbucks sweetened lattes) |
| Depending on what they feel like, time of day, and thirst level |
| Mood, cravings, scenario/social context |
| Health & Taste |
| Taste |
| Health considerations, followed closely by type of beer. |
| Thirst, taste, alcohol content |
| Sugar |
| How thirsty they are (chooses more sweetened or flavoured drinks when really thirsty), convenience (what's close by) |
| Mainly routine (coffee in morning, water or iced tea/juice throughout the day, wine/beer in the evening) |
| Beverages with no added sugar, low calorie. Usually drink water and a glass of tea in the morning, a cup of black coffee at noon |

| |
|---|
| Mostly my personal references such as taste of the beverage. But also depending on the season I go from more hot beverages like coffee and tea during cooler seasons to water and cold beverages during the summer |
| I usually go for coffee because of its taste and flavour and a little of water, like 1-2 cups of water per day. I'm not a much of a juice fan |
| For me thirst is the first motivator and I most often drink cold water. |
| Mood, taste, but not interested in sugar products. I mostly drink cold water. |
| I would say a mixture of both taste and preference and different occasions motivate my beverage choice. Would therefore choose my beverages depending on where and why I'm drinking along with my personal preferences for the flavours |
| I mostly drink coffee as a habit, I can say at least 4 cups of coffee per day. I like its taste and smell. It just makes me relaxed, especially when I'm in a stressful situation, it really helps. |
| I have 3 criteria for choosing my beverage, its taste, price and caffeine content- I mostly prefer to choose a beverage that is low in calorie and sugar. Most of the time drink black coffee without any cream and sugar. Unfortunately, I drink water very little maybe 1-2 glass per day with my lunch and dinner |
| I do exercise a lot, I can say at least 4 times a week and mostly drink water, specially on those days. I am not a fan of sweet taste, so I'm not eating desert, chocolate and sweet beverage regularly. I just drink a cup of black coffee with my breakfast every day and for the whole day I drink water. |
| I'm a heavy coffee drinker, it reduces my anxiety, feels me good, I like its taste, and I can get it easily wherever I go. |

**Question 2: What is your knowledge about healthy/unhealthy beverages?**

Summary:

- Water is best
- Sugary beverages should be reduced (pop or juices) and those with a high caffeine content were generally cited as being an example of an unhealthy beverage
- Unhealthy = sugar, chemicals such as alcohol or artificial sweeteners, high calorie
- A healthy beverage is water or one that has nutrients (ex. 100% fruit juice)
- Overall people seemed to have better knowledge of what they would consider an unhealthy beverage rather than a healthy beverage

Number of respondents mentioning:

| Healthy | Neutral | Unhealthy |
|---|---|---|
| Water (14)<br>Nutritional Value (3) | Coffee/Caffeine (2) | Sugar (40)<br>Coffee/Caffeine (5)<br>Juice (6)<br>Soda/Pop (5)<br>Artificial/Non "Natural (7)<br>Calories (8)<br>Alcohol (2) |

Theme Legend:

| | | |
|---|---|---|
| Sugar/sugar content | Juice | Artificial/Not "Natural" |
| Coffee/Caffeine | Soda/Pop | Calories |
| Water | Nutritional Value | Alcohol |

| |
|---|
| An unhealthy beverage is determined by the sugar content and how addictive it is. Coffee is addictive despite not having sugar in it always. She has a basic understanding of healthy beverages but would like to know more about nutrient content. Would like to know about electrolytes, antioxidants, and nutrient benefits. |
| In order from healthy to unhealthy it would be water, juice and then pop. Because for juice, it is at least derived from plants. In terms of knowledge, just know that water is the best. |
| Sugar content. Will always go for the drink with less sugar. Doesn't know scientific background but drinks are meant to quench thrist so wonders why you would need sugar in it too? |
| Weston A. Price Foundation. Sugar content and caffeine content. |
| Sugar content and caffeine content. |
| Sugar and caffeine |
| Sugar and caffeine |
| Sugar content, vitamins (false advertising), water is the best thing to have |
| Sugar content and if it advertises having lots of vitamins and minerals |
| Sugar Content |
| I would say a healthy beverage has low or naturally derived sugars. If it isn't water maybe something that has nutritional value |

| |
|---|
| Healthiest beverage is water and possibly a smoothie if that counts as a beverage so something low in sugar or if it has sugar in it it keeps you full |
| I think an unhealthy beverage would be pop like a coke and would have high amounts of sugar or artificial sweetners and chemicals |
| An unhealthy beverage has high sugar and doesn't have nutritional value (like a pop) and the opposite for healthy beverage |
| A healthy bevereage would be low calorie so you aren't adding extra calories to your day with your beverages, and would be hydrating. An unhealthy beverage would have lots of sugar |
| I think water is the healthiest beverage option. Most other beverages have some sugar added which would make them unhealthy |
| Drinks can contain lots of sugar even when you think they don't. |
| An unhealthy beverage would be something that has lots of calories or sugar but does have a lot of nutrients |
| A healthy bevereage has other nutrients or no sugar and low calories. An unhealthy one would be the opposite, and also if they have things that can cause damage like alcohol |
| An unhealthy beverage would be one that has lots of sugar in it |
| Not much! We try to avoid juice, especially from concentrate, and instead drink water and eat fruit. Our family feels pretty unsure around milk as there are so many choices for milk type beverages. |
| Very little. Aware of sugar content and dyes but not much else |
| I know that pop, and other drinks that are high in sugar (such as juices) are unhealthy. I figure the best beverage is water. |
| More sugar=more unhealthy likely |
| Limited |
| medium, try to avoid sugar |
| very good |
| beverages higher in sugar are less healthy |
| Avoid pop/juice/high sugar drinks as much as possible, drink H2O instead |
| Average |
| Lots of sugar in unhealthy beverages |
| Tries to avoid SSB and focus on drinking water |
| High fructose corn syrup and diet drinks are bad |
| Sugar isn't good, even most juices have sugar, water is best |
| Good |
| Nutritional Label-level |
| Diet Coke cleans battery terminals |
| I usually stick to water cause anything else is usually full of sugar. Except for coffee |

| |
|---|
| Basic, sugar in drinks is less healthy |
| Not much, knows pop is bad and sports drinks have a lot of sugar; water is probably the best |
| To choose water over soft drinks, fruits over juices, black coffee |
| I mostly look into their sugar content, calorie, additives, and try to choose the ones with the least amount of these factors. |
| Beverages without any added sugars or sweeteners are better choices for drink regularly. There are no healthy/unhealthy options. Sweetened beverages are better to limited and consumed less often. |
| I perceive beverages with high amount of sugar, carb, added chemicals and preservatives of any sort would be the unhealthy ones |
| My metric for determining whether a beverage is healthy is amount of sugar and alcohol in the product. I don't have any more information and knowledge. |
| I have previously taken two food and nutrition related courses in the university and I'm kind of familiar to the general concepts of how food and beverages are categorized into "healthy" and "unhealthy" groups and how thy further impact one's health and nourishment. |
| Beverage low in calorie and sugar would be the healthy one. Since I am not the fan of water that much, I try to take my coffees without any sugar and I just add a little amount of milk. |
| any beverage low in calorie, sugar and additives would be a healthy one. |
| Beverages low in calorie, sugar, sweeteners are generally healthy ones. Black tea and coffee would be in the same category. |
| Healthy beverage is the one that help your health like green tea, water, 100% fruit juice; any drink with out excessive calorie and sugar. |

**Question 3: What are some barriers you face in consuming healthy beverages?**

Summary:

- Healthy beverages tend to be more expensive and less accessible for people to purchase on campus, sometimes it is difficult to find somewhere to fill your water bottle, especially in the older buildings on campus (can't always use the sinks well due to size or automatic taps)

Number of respondents mentioning:

- Price (27)
- Sustainability (Ex. reusable cups/water bottles) (2)
- Caffeine (2)
- Convenience/Availability (time, reusable bottle, location) (23)
- Lack of knowledge of where they are (1)
- Taste (11)
- Memory (1)
- No Barriers (4)
- Uncertainty over healthy options (3)
- Social gatherings tend to include unhealthy options (3)
- Stress/Exhaustion (2)

Theme Legend:

Price
Sustainability (Ex. reusable cups/water bottles)
Caffeine
Convenience/Availability (time, reusable bottle, location)
Lack of knowledge of where they are
Taste
Memory
No Barriers
Uncertainty over healthy options
Social gatherings tend to include unhealthy options
Stress/Exhaustion

| |
|---|
| Price. Drinking unhealthy beverages is so cheap. Coke is so cheap compared to kombucha. Accessibility. Can't get a kombucha from a vending machine but you can get a coke from there. |
| Don't really buy drinks on campus because it's expensive. |
| All she really buys is coffee. Goes to the place with cheap coffee but also that is good quality and you can sit down. Especially if she forgets her reuseable coffee cup. |
| Because he mostly only drinks water, it is very accessible. |
| Price. Water is accessible but not other healthy beverages. |
| Price and location |
| Price, location and accessibility of filtered water stations in the older buildings such as music buildings. |
| Price, healthier the beverage, the more costly it is, sodas much cheaper, selection of healthy beverages, not as much. Vending machines have a bunch of sodas but rarely any juices or other healthier beverages. |
| Not a lot of vending machines with healthy beverage options. There is little accessibility late at night for healthy beverages. |
| Where to go for healthy beverages at UBC distribution sites |

| |
|---|
| Mainly price and availability, sometimes if I forget my water bottle purchasing water at a coffee place or somewhere on campus is more expensive then getting a juice or coffee. Also, if i cant find a water fountain or sink getting a coffee is easier |
| Availability and time, it can be hard to look for somewhere to fill up water if I am running between classes or meetings. Much easier to just grab a coffee because I never feel like I want to pay for water |
| Mainly cost if purchasing from the store or on campus |
| Taste, I like something that is sweet but those things are usually not healthy for you. Otherwise cost and availability |
| Cost and availability. Sometimes it is hard to remember my reusable water bottle or find a water fountain when I need one so I would likely just go without something or purchase something cheaper from a cafe or store |
| Mostly time and my memory. I want to drink more water because I know it is the healthiest option however sometimes I forget |
| Not really many. I like healthy drinks! Waters my fav! |
| Mostly just taste. I don't love water so it can be hard to drink that |
| Not many, except sometimes I don't want to look for a water fountain which means I have to buy a more expensive drink |
| Sometimes I am unable to find a water fountain or somewhere to fill my waterbottle and I dont want to buy a plastic water bottle so I find that difficult |
| Price point. Uncertainty of whether it is or is not truly healthy. |
| Cost, availability and knowledge of good healthy beverages |
| Taste, I like sweet drinks, and the social aspect of drinking alcohol |
| "Healthy" sometimes costs more |
| Taste and money |
| availability , shelf life |
| expensive!!! |
| forgetting my water bottle |
| Sugar-full pop tastes good |
| Cost, access/availability |
| Price |
| Price |
| They taste like nothing usually, or are watered down versions of normal drinks (Gatorade g2 for example) |
| They don't taste as good as unhealthy beverages |
| I like beer the most but it's not the healthiest. |
| I don't think I see any |

| |
|---|
| No barriers to drinking water |
| Cost |
| Availability of healthy options that taste good |
| Drinking water all day is too bland, cost of less sweetened drinks on campus (e.g. GoodDrink teas) |
| Social pressure sometimes forces me to choose unhealthy drinks, or the pressure of the school and stress sometimes increase my desire to drink sweetened beverages. |
| One thing that I noticed the most is that not a lot of places have water fountains which can be a barrier when I try to make water my drink of choice. |
| Availability and accessibility- also sometimes healthier (organic options without added sugars) are more expensive that their sugary counterparts! |
| Availability and cost, I always have problem to fill my bottle of water in the campus |
| I haven't faced any barrier in the campus for getting water since the past 2 years. I always bring my large bottle of water with myself and it's enough for me for the whole day. And if sometimes I want to drink other beverages, there are lots of enough groceries and coffee shops around. |
| Generally old habits such as being used to and liking unhealthy beverages such as coke promotes me to drink unhealthy beverages instead of a healthy one. As a student, drinking a lot of coffee and energy drinks along with occasional partying and consuming alcohol also prevents me from making healthy beverage choices. |
| I think habit is one of the major barriers. I think I have an addiction to caffeine and if I'm not getting enough of it, I get a severe headache. The other one is that I really don't like to drink water because it's tasteless and it must be in a specific temperature to quench my thirst. The taste and the temperature of the coffees we usually by from coffee shops are just perfect for me. |
| In the campus there is not much barrier for me to get the beverages that I want, but I have noticed that there are not much water filling stations here and the water bottles are not that much cheap. Those are that are a little cheaper have an awful taste, like there is something missing in that water, I mean when you drink it you feel like it doesn't have any weight and don't get you satisfaction. |
| I think availability is the major barrier for me, and of course cost. I always bring my water bottle with myself and honestly, since now, I haven't problem that much to refill my water bottle. But sometimes when I forget to bring it, I must buy it which is kind of expensive and. sometimes the vending machines are also not working properly. |
| I'm not consider myself as a person to eat healthy foods/ beverages. For me the price would be a barrier, I like the taste of the Starbucks' coffees, but among other brands, they are more expensive. |

## *Appendix F: Photo Audit Data*

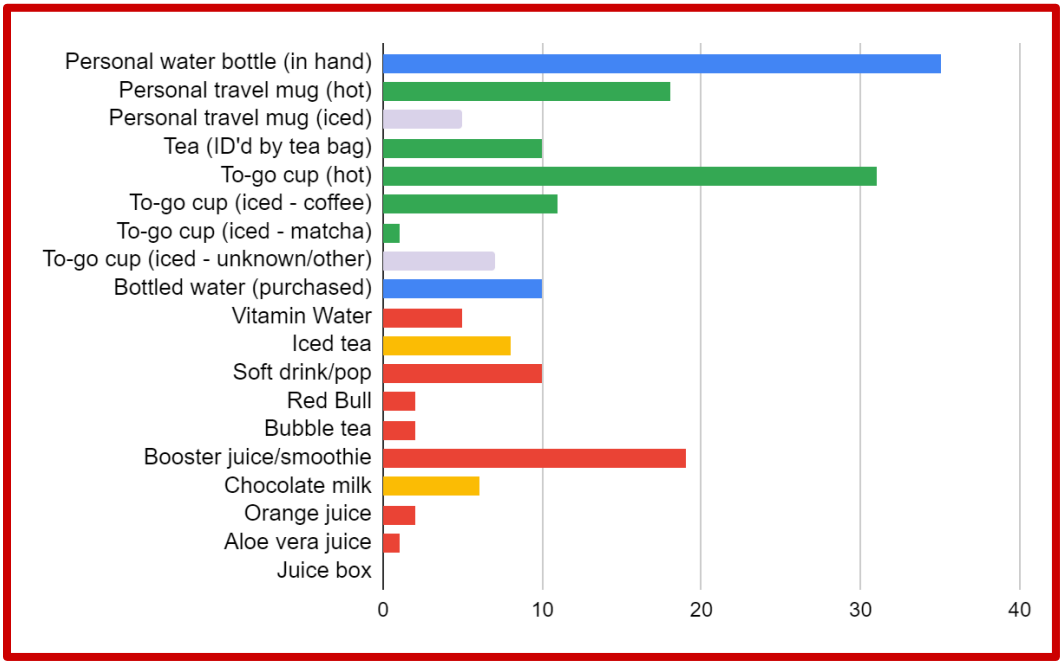
| Assessment | Results | Notes |
|---|---|---|
| *# of photos:* | 71 | |
| *# of locations:* | 18 | 5 locations within the Nest |
| *# of locations with SSB in menu or out front in displays:* | 18 | Counting kombucha as SSB (>6g in one beverage as sold) |

| ***Locations*** | | | | |
|---|---|---|---|---|
| ***Coffee Shops*** | ***Other Cafes/Food Outlets*** | ***Grocery/Convenience Stores*** | ***Residence Halls*** | ***Vending Machine*** |
| Tim Hortons | Agora Cafe | Nest stores (5) | Orchard | |
| Starbucks | Ike's Cafe | The Corner (near UBC Bookstore) | Totem | |
| JJ Bean | Sprouts | Vanier Convenience Store | Vanier | |
| Bean Around the World | | | | |

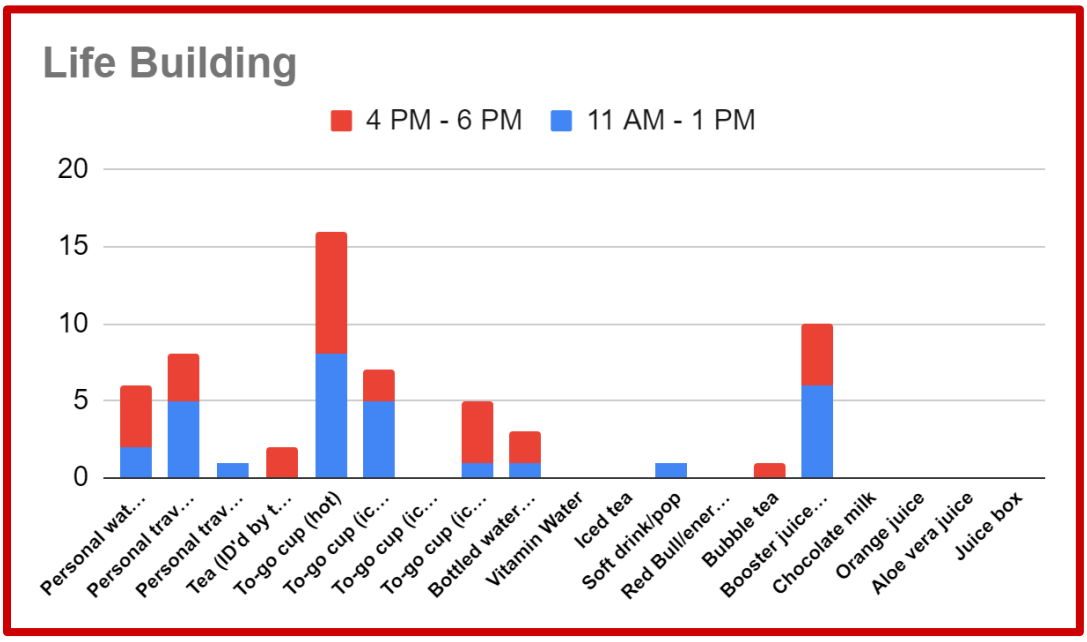
| ***# locations with...*** | ***Coffee Shops*** | ***Other Cafes/Food Outlets*** | ***Grocery/Convenience Stores*** | ***Residence Halls*** | ***Vending Machine*** |
|---|---|---|---|---|---|
| *Blue tier beverages* | 2 | 2 | 2 | 3 | |
| *Green tier beverages* | 4 | 3 | 3 | 3 | |
| *Yellow tier beverages* | 4 | 3 | 3 | 3 | |
| *Red tier beverages* | 3 | 3 | 3 | 3 | 1 |

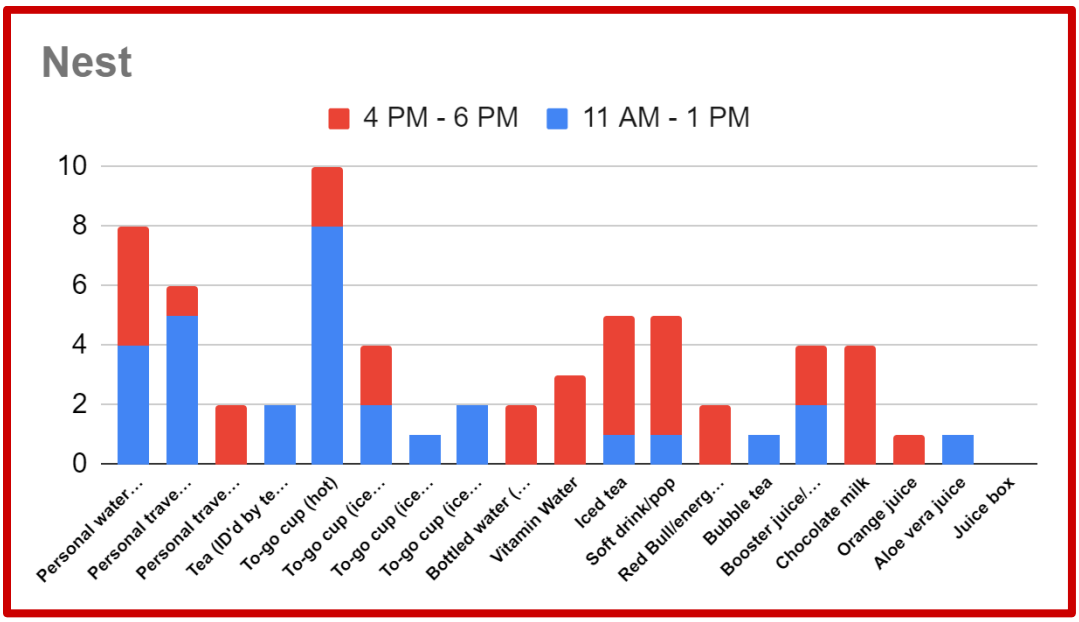
| ***Descriptive Analysis*** | |
|---|---|
| ***Coffee Shops*** | |
| *Blue Tier* | All (except TH) offered water (bottled, coconut) in display cases |
| *Green Tier* | All offer options for unsweetened coffee and tea; no explicit options for plain milk or milk alternatives |
| *Yellow Tier* | All (except TH) offered 100% fruit and/or vegetable juice on display; 1 location offered Coke Zero; 1 location offered chocolate milk |
| *Red Tier* | All locations (except TH) offered at least 2 SSB options (Kombucha 5-6g per serving size, but one bottle sold is more than 1 serving size); 2, 4, 5 SSB options for 3 stores |
| *Other* | In display cases, more likely to offer specialty beverages (e.g. Callister Soda co., San Pelligrino, Glory Juice, kombucha) |
| | But still offer many SSB options |
| ***Other Cafes/Food Outlets*** | |
| *Blue Tier* | 1 location offered bottled water in display case |
| *Green Tier* | All locations offered options for unsweetened tea and coffee; 1 location offered plain milk |
| *Yellow Tier* | 1 location offered 100% fruit juice and chocolate milk |
| *Red Tier* | All locations offered SSB: 1 location only kombucha, 1 location lemonade and Gyagaki Yerba Mate; 1 location exclusively offered SSB options besides coffee/tea |
| *Other* | 1 location only offered coffee, tea and kombucha |
| ***Grocery/Convenience Stores*** | |
| *Blue Tier* | All offered options for bottled water - still, sparkling, or flavoured (but unsweetened) |
| *Green Tier* | 3 locations offered plain milk |
| *Yellow Tier* | All location offered chocolate milk, 100% fruit juice and/or diet soda |
| *Red Tier* | All locations offfered SSB |
| *Other* | Offered the largest selection of SSB |
| ***Residence Halls*** | |
| *Blue Tier* | All offered bottled water; 2 locations offered self-serve flavoured water stations |
| *Green Tier* | All offered options for unsweetened coffee/tea, as well as plain milk in display cases and plain milk from self-serve dispensers |
| *Yellow Tier* | All location offered diet/no sugar sodas, 100% fruit juice, and chocolate milk in display cases (all) or from self-serve dispensers (2) |
| *Red Tier* | All locations offered SSB |
| *Other* | |
| ***Vending Machine*** | |
| | Coca-Cola vending machine |
| | |
| **Notes/Limitations:** | Viewing at one point in time - certain things may have been out of stock |
| | Availability does not indicate sales popularity |

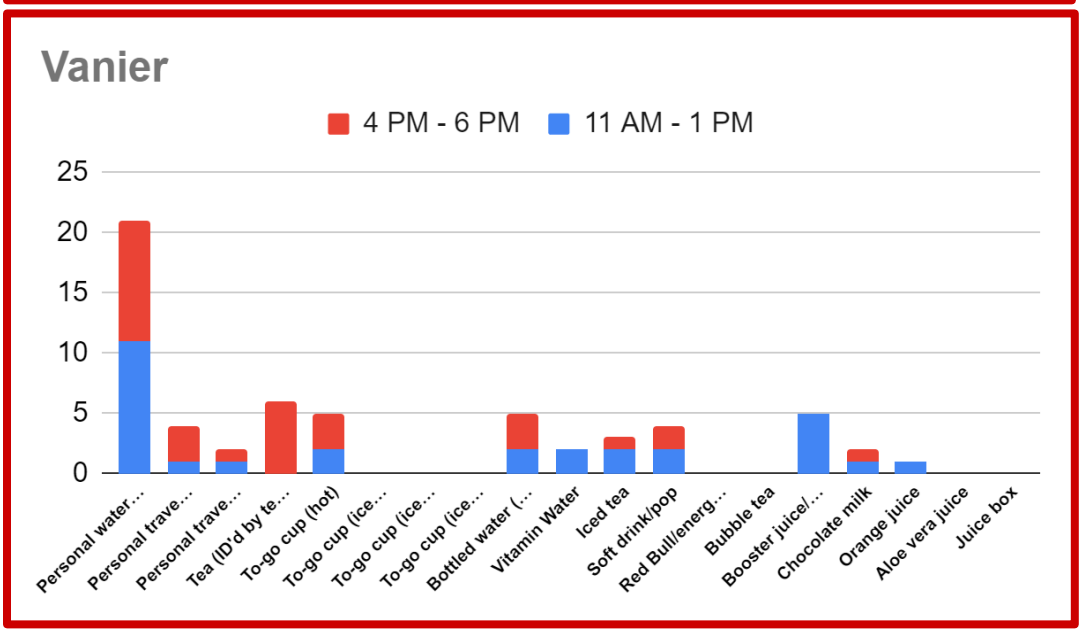
## *Appendix G: Observational Audit Data*




- Color coded beverages based on the HBI beverage tiers (Blue, Green, Yellow, Red)
    - Unknown beverages




Nest
4 PM - 6 PM
11 AM - 1 PM
10
8
6
4
2
0
Personal water...
Personal trave...
Personal trave...
Tea (ID'd by te...
To-go cup (hot)
To-go cup (ice...
To-go cup (ice...
To-go cup (ice...
Bottled water (...
Vitamin Water
Iced tea
Soft drink/pop
Red Bull/energ...
Bubble tea
Booster juice/...
Chocolate milk
Orange juice
Aloe vera juice
Juice box


Vanier
4 PM - 6 PM
11 AM - 1 PM
25
20
15
10
5
0
Personal water...
Personal trave...
Personal trave...
Tea (ID'd by te...
To-go cup (hot)
To-go cup (ice...
To-go cup (ice...
To-go cup (ice...
Bottled water (...
Vitamin Water
Iced tea
Soft drink/pop
Red Bull/energ...
Bubble tea
Booster juice/...
Chocolate milk
Orange juice
Aloe vera juice
Juice box