

Healthy Food & Beverage Sales

In Recreation Facilities and Local Government Buildings

Process and Impact Evaluation

Final Report

Phase 1, Mentor Communities
May 2008- January 2009

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EXECUTIVE SUMMARY

Ten BC communities participated in Phase I of the Healthy Food and Beverage Sales project, eight of which completed a complete baseline and follow-up evaluation between June 2008 and January 2009. This evaluation looked at both process and impact. The major areas assessed were the facility environment, vending machines, and patron behaviors and awareness and the facilitation process.

Findings from the facility assessment tool shows that there was a significant positive change in the overall facility environment from baseline to follow-up according to the subscale categories of strategic planning, supportive environments, and communication and education.

The vending machine audit revealed that there was on average a 20% increase in healthy choice products (“Choose Most” and “Choose Sometimes”) in the vending machines of participating communities from baseline to follow-up. The observed increase in “Choose Sometimes” products and the decrease in “Choose Least” products was statistically significant. Furthermore, five of the ten communities demonstrated significant changes to their vending machines and had a 36% increase in healthy choice products (CM/CS) between baseline and follow-up. The greatest increase of CM/CS vending products was seen in snack machines compared to beverage machines, although beverage machines at baseline began with a greater proportion of healthy choices.

Findings from the patron survey revealed that for a majority of patrons healthy eating was either important or very important to them. The biggest barrier to choosing healthy options patrons experienced was lack of selection followed by cost of product. Overall, there was no significant difference in patron awareness of healthy eating information, events or promotions between baseline and follow-up and a majority of patrons reported that their choice of purchases has not been influenced by the intervention. However, implementation of the ‘Stay Active Eat Healthy’ social marketing campaign was delayed and the process of change took longer than the project reporting deadlines. Anecdotally, more change has occurred since the follow-up data collection.

Key themes related to implementation barriers and facilitators were: funding, operations, staff, industry, buy-in from all stakeholders, attitudes toward change, communication and time. Concerns about the impact on revenue and buy-in from decision makers, staff, and patrons were the most commonly indicated barriers to implementation. The toolkit resource, funding and meetings with participating communities were indicated by staff as the items most helpful factors in their implementation process.

This report shows that a well supported initiative can facilitate changes in municipal recreation food environments even over a short period of time.

INTRODUCTION

The BC Healthy Eating Strategy was presented by the BC Healthy Living Alliance (BHLA) in May 2007 as one of four target areas of health promotion in the province. Within the Strategy were four initiatives targeted at increasing the availability of healthy choices, consumption of healthy choices, and skills related to making healthy choices in environments where families live, learn, work and play. One of these initiatives is to “Support Healthy Food and Beverage Sales”.¹

The resulting BC Food and Beverage Sales in Recreation Facilities and Local Government Buildings Initiative (HFBS) is being co-lead by the British Columbia Recreation and Parks Association (BCRPA) and the Union of British Columbia Municipalities (UBCM). The project features support for local government buildings and recreational facilities to voluntarily adopt the sale of healthy food and beverages.² The evaluation of the pilot phase was conducted by the University of Victoria under the direction of Dr. PJ Naylor on behalf of the HFBS initiative.

This report presents the findings from the process and impact evaluation conducted May 2008 to January 2009 in those communities who were awarded grants to participate in Phase I of the HFBS project. These communities are the first to formally participate in the HFBS initiative and include large and mid-sized urban, small rural communities as well as one First Nations community. These communities were referred to as Mentor Communities, as they were asked to provide support to others who will participate in future phases.

At the outset, there were ten community grant applications accepted to participate in Phase I. It should be noted that this report only reports on eight, and in some cases nine of these communities. One of the original communities had to delay their participation until Phase II so they were not included in this final report. Another was a First Nations community for which the evaluation methods were not suitable. Based on the experience and feedback received from Phase I, a First Nations Evaluation package has been developed to better suit the needs of these communities in future Phases.

The information presented in this report was prepared for those involved in Phase I of the HFBS initiative but may also be useful for other recreation facilities looking to change their food environment as well as for industry seeking to support these changes.

¹ British Columbia Healthy Living Alliance, “BC Healthy Eating Strategy”, http://www.bchealthyiving.ca/files/BCHLA_HealthyEatingStrategy.pdf, 17 May 2007

² British Columbia Recreation and Parks Association website, “Healthy Food and Beverage Sales”, <http://www.bcrpa.bc.ca/HealthyFoodandBeverageSales.htm>, 2008

OBJECTIVES

The purpose of this evaluation was:

- 1) To determine the impact of HFBS project work on:
 - ✓ The overall facility food environment.
 - ✓ Vending and concession services.
 - ✓ Customer choices and perceptions.

- 2) To identify key issues related to implementation:
 - ✓ The process of changing food and beverage sales.
 - ✓ Industry supply and distribution of choose most and choose sometimes products.
 - ✓ The activities that went on for the project.
 - ✓ Facilitators and barriers to implementation.
 - ✓ Plans for sustainability.

EVALUATION METHODS & TOOLS

EVALUATION ACTIVITY	COMPLETED
<p>Facility Audit</p> <ul style="list-style-type: none"> Assesses the overall organizational and facility environments. Specifically addresses the areas of a) Strategic Planning, b) Supportive Environments and c) Education and Awareness 	<p>8 Communities</p> <p>Baseline: Jun-Sept 2008 Follow-up: Nov-Dec 2008</p>
<p>Vending Audit</p> <ul style="list-style-type: none"> Assesses products in standard snack food and beverages in vending machines found in recreation facilities Uses Dietician's of Canada's Brand Name Food List Tool to rate products according to BC Provincial Guidelines (See Appendix for Healthier Choices in Vending Machines in B.C. Public Buildings Policy Paper) 	<ul style="list-style-type: none"> 8 Communities 186 Vending Machines Counted 32 Vending Machines Audited 1410 Products Audited <p>Baseline: Jun-Sept 2008 Follow-up: Nov 2008- Jan 2009</p>
<p>Patron Survey</p> <p>Collects data on facility users in the following areas:</p> <ul style="list-style-type: none"> behaviors regarding vending and concession use attitudes toward healthy food and beverages awareness of healthy choice messaging/promotion and changes 	<p>8 Communities, N=561</p> <p>Baseline: Jul 2008, n =316 Follow-up: Dec 2008- Jan 2009, n=245</p>
<p>Staff Telephone Interview</p> <p>Project leads participated in a phone interview and were asked to give an account of their project activities and specific challenges they encountered. Staff were also asked what factors and resources were most helpful in facilitating their progress and what they might need in the future to sustain their changes and support their next steps.</p>	<p>10 participants from 9 communities</p> <p>Dec 1-19, 2008</p>
<p>UBCM Reports</p> <p>Themes and activities stated on the Phase I communities' grant applications were compared with their final reports to observe trends established goals, activities and achievements</p>	<p>9 sets of grant applications and final reports reviewed</p>

PROJECT ACTIVITIES

During the final interviews in December, project leads were asked what went on during the project. Project activities were also reported in the final UBCM reports. Combining the responses from the interviews and reports, the following charts reflect the themes of their responses ('x' meaning this activity was mentioned). Factors are listed top to bottom, from most frequently to least frequently indicated.

Table 1: Phase I project activities according to prevalence by community

ACTIVITIES	Community								
	1	2	3	4	5	6	7	8	9
Participated in evaluation activities	x	x	x	x	x	x	x	x	x
Distributed promotional/educational materials	x	x	x	x	x	x	x	x	x
Shared information/ resources with other organizations and communities	x	x	x	x	x	x	x	x	x
Developed policy and/or guideline	x	x	x	x	x	x	x	x	x
Worked towards changing vending	x	x		x	x	x	x	x	x
Used 'Stay Active Eat Healthy' marketing materials	x	x		x		x	x	x	x
Hosted community awareness events (e.g. Healthy Food Fair)	x	x		x		x	x	x	x
Hired a consultant /project coordinator		x		x	x		x	x	x
Invested in promotion and marketing (e.g. interaction with the media, website, displays, posters)	x	x		x			x	x	
Provided staff training on promoting healthy eating in programs and services	x			x		x	x		x
Provided public education and awareness opportunities (e.g. workshops and programs)	x			x		x	x	x	
Hosted local pocket/farmers markets	x	x	x				x		
Provided healthy food and beverage sampling			x	x		x	x		
Worked to provided healthy options at staff meetings				x	x	x		x	
Facilitated key stakeholders meeting (e.g. Committee, industry, user groups, decision makers)		x		x	x	x			
Changed concession/café service (e.g. menu, facility revamp)	x		x	x			x		

(continued ...)

ACTIVITIES <i>(continued)</i>	Community								
	1	2	3	4	5	6	7	8	9
Partnered with regional health district					x			x	x
Partnered with sports associations in charge of concessions (e.g. hockey league)		x		x					x
Completed project toolkit process ('MRFEAT')	x						x		
Promoted healthy choices within children's summer camps							x	x	
Hired a new chef for food services	x		x						
Moved towards using local foods in concession	x						x		
Developed a/ Choose Most/Choose Sometimes list for Concessionaires and Suppliers				x					

Key Quotes Regarding Project Activities:

Staffing → “We did hire someone, but ultimately we were kind of using a team approach rather than just one person”

Policy → “Well, officially the City created a guideline for policy, I guess and our guidelines were 70% Choose Most & Choose Sometimes and 30% Not Recommended and Choose Least”

Concession → “So initially what I did was met with the operators, the concessions and determined their needs, so I did a needs assessment and as I mentioned to...I found out their needs and really tried to communicate that we were there to support them and help them and work through this”

Partnership → “We really wanted to have some connection with local producers of foods and that part has happened because now we are going to be the new location for the Farmers Market, so that is really exciting”

→I think we already had a partnership and good relationship with some of the community dietitians and the community development people from Fraser health...So its has been a really partnership building thing...[to] show the city supports food security and nutrition.”

Programs → “We have quite a few programs that provide snacks or foods or birthday parties where traditionally pizza and pop were provided and maybe a cake or something so now we are trying out a healthy eating birthday party, if they chose the healthy option they get a veggie plate with meats or vegetarian or cheese pizza...and 100% fruit juice or water.”

Promotion and Education Events → “We did have a food fair in partnership with the school district and what we did...we actually brought in completed concession areas, or completed vending machines, ideal displays so they can see it and go ‘oh wow! The whole machine is Choose Most or Choose Sometimes’.”

→“We did some food sampling...had all different types of snacks from the choose most and the choose most choose sometimes categories. And so we gave those out to people and asked for their feedback regarding what they would like to be offered”

→ “We sponsored a dietitian that works with the [health council] to come in and we hosted a free healthy lunch and it was open to any community member who had an interest in healthy eating... we offered an introduction, or a visitation to anybody”

Community Goals and Achievements

The following outlines the major themes of those *activity goals* that Phase I Communities proposed in their UBCM grant application forms, and the activities that were in fact *achieved* by the end of the grant phase according to the communities' final reports. It is notable to consider the following items in regards to the chart:

- Overall, a majority of project goals were achieved.
- There are more cases where an activity was achieved even though it would not indicated in the original goals, than cases where goals were not achieved.
- This chart is limited by those goals and activities reported by communities. Anecdotally, many communities achieved more than they reported.

Table 2: Comparison of Phase 1 communities' goals and achievements

Community	1		2		3		4		5		6		7		8		9		
	Goal	Achieved	G	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A	
Hosting Farmer's Markets	x	x	x	x	x	x							x	x					
Vending Changes	x	x	x	x			x	x	x			x	x	x	x			x	x
Public Awareness		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Healthy Eating Information	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Taste Testing Days												x							
Staff Training	x	x				x						x	x	x	x				x
Concession, Café or Snack Bar Changes	x	x		x	x	x	x	x					x	x	x			x	
Partnership Building		x	x	x	x	x		x	x	x					x	x			x
Policies				x				already in place	x	x					x	x	x	x	
Creation of Food Committees or Organizations	x food strategy									x					x				
Nutrition Seminars or Workshops	x	x											x	x		x			
Healthy Food at Meetings and Events		x										x	x	x	x - events				x

IMPACT ON FACILITY ENVIRONMENT

Potential Number of Facilities Impacted within Phase I

A total of 68 facilities will be influenced by this project.

Community	1	2	3	4	5	6	7	8	9	TOTAL
Number of Facilities Impacted	1*	7	2	10	4**	4	6	33***	1	68

Notes:

* Piloting in 1 and then planning to move to other facility (n=2)

** 1 primarily as a pilot, other 3 facilities reached through diffusion

*** 2 facilities were audited and changes made, 31 will be influenced eventually through diffusion

Description of Evaluation Activity

The project leads and Healthy Choices Committees in Mentor Communities rated their facilities before and then after implementing changes through the initiative. The initial baseline assessment marks the starting place of communities when they began their participation in the HFBS project and follows their progress to the end of the grant phase. This evaluation activity allows communities to compare themselves over time.

Communities made an assessment on the areas of strategic planning, supportive environments and education and awareness. Those communities with multiple facilities involved in the project were assigned an average score, rating the represented facilities collectively as one. Each assessment area consisted of several categories, rated according to the following scale:

0= Not in Place

1= Under Development

2= Partially in Place/Could be Improved

3= Fully In Place

The '**Ideal**' column shows the highest possible score a facility could achieve if they had a facility where all areas in regards to healthy choices were fully in place. The '**Baseline**' column reflects the average initial score across the 8 communities included in the comparison and the '**Follow-up**' column reflects the average completion score of the 8 communities who completed the assessment.

Facility Assessment Results

Table 3: Average facility assessment scores for Phase I communities according to category statements

Category	Criteria Statement	Baseline Average	Follow-up Average	Total Possible
Strategic Planning	• A Healthy Choices Committee is in place.	1.9	2.6	3
	• The facility has dedicated resources and/or assigned responsibility for the plan and/or policy.	1.5	1.6	3
	• A Healthy Choices Plan and/or policy been written and approved by decision makers.	2.3	2.6	3
	• The facility's healthy choices goals are being monitored and evaluated annually.	0.9	2.0	3
Supportive Environments	The facility offers healthy choices in accordance with the BC Provincial Guidelines for Healthy Eating in the following areas:			
	○ Vending machines	1.0	1.8	3
	○ Food services	0.8	1.8	3
	○ External recreation programs	0.8	1.3	3
	○ Internal recreation programs	1.3	1.6	3
	○ Events	0.8	1.3	3
	• Fundraising is done with healthy choices or non-food choices.	0.6	0.6	3
	• Recreation staff work in a healthy choices setting (e.g. healthy meetings)	1.1	1.8	3
Communication & Education	• Nutritional training is provided for staff and volunteers.	1.0	1.6	3
	• Food Safe training is provided for staff and volunteers.	1.9	2.5	3
	• The public is made aware of the facility's healthy choice initiatives. (e.g. newsletter, website)	1.1	2.0	3
	• The facility support staff in continuing to make healthy changes to the facility.	1.3	2.4	3
	TOTALS	20.6	30.3	51
	SCORE (compared to ideal facility)	40%	59%	100%

Facility Assessment Average Results for Phase I Communities

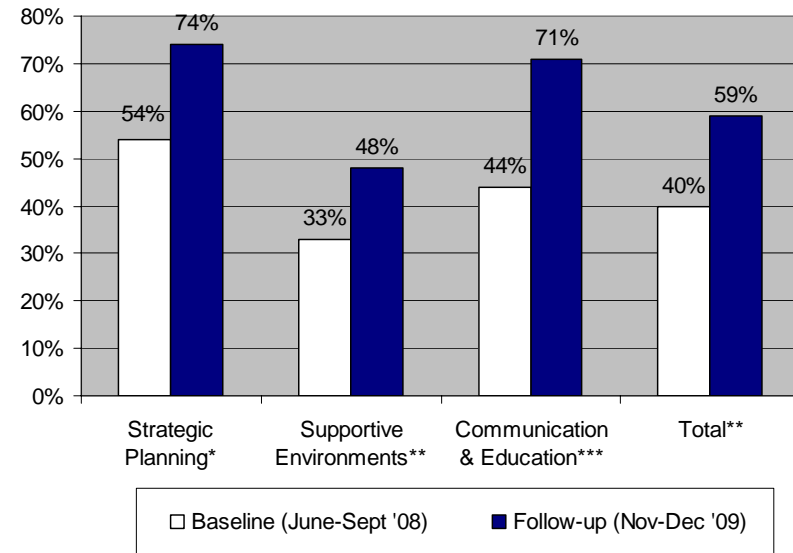
Table 4: Average facility assessment scores for Phase I communities

	Baseline	Follow-up
Strategic Planning	6.5/12	8.9/12
Supportive Environments	8.9/27	12.9/27
Communication and Education	5.3/12	8.5/12
Totals	20.6/51	30.3/51

Discussion Points:

- There was a significant positive change in the overall facility food environment from baseline to follow-up as measured by the overall facility assessment score ($t(7) = -4.61, p = .002$) and in the subscale categories (See Table 4 and Figure 1).
- On average, facilities improved by 19% when comparing baseline to follow-up assessments.
- Even within a short period of time of the project initiative, changes occurred within the recreation food environment.

Figure 1: Average facility assessment percentage scores for Phase I communities



- * Difference was statistically significant at $p < .05$
- ** Difference was statistically significant at $p < .01$
- *** Difference was statistically significant at $p < .001$

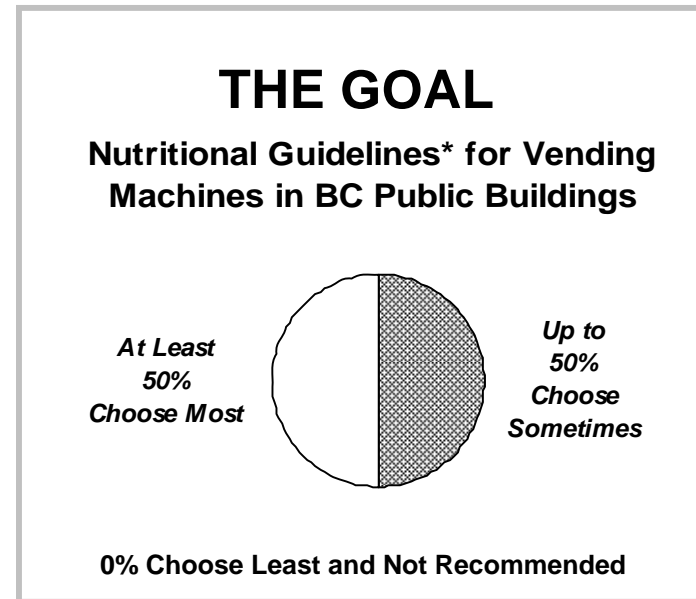
IMPACT ON VENDING MACHINES

Number of Vending Machines Impacted

- 8 Communities
- 186 Vending Machines Counted
- 32 Vending Machines Audited
- 1410 Products Audited in total
 - 605 Beverage Products
 - 805 Snack Food Products

Baseline: June-September 2008,
Beverages (n) =332 products
Snack Foods (n) =404 products

Follow-up: November 2008- January 2009
Beverages (n) =273 products
Snack foods (n) =401 products



* Refer to detailed Guidelines at <http://www.lcs.gov.bc.ca/HealthierChoices>

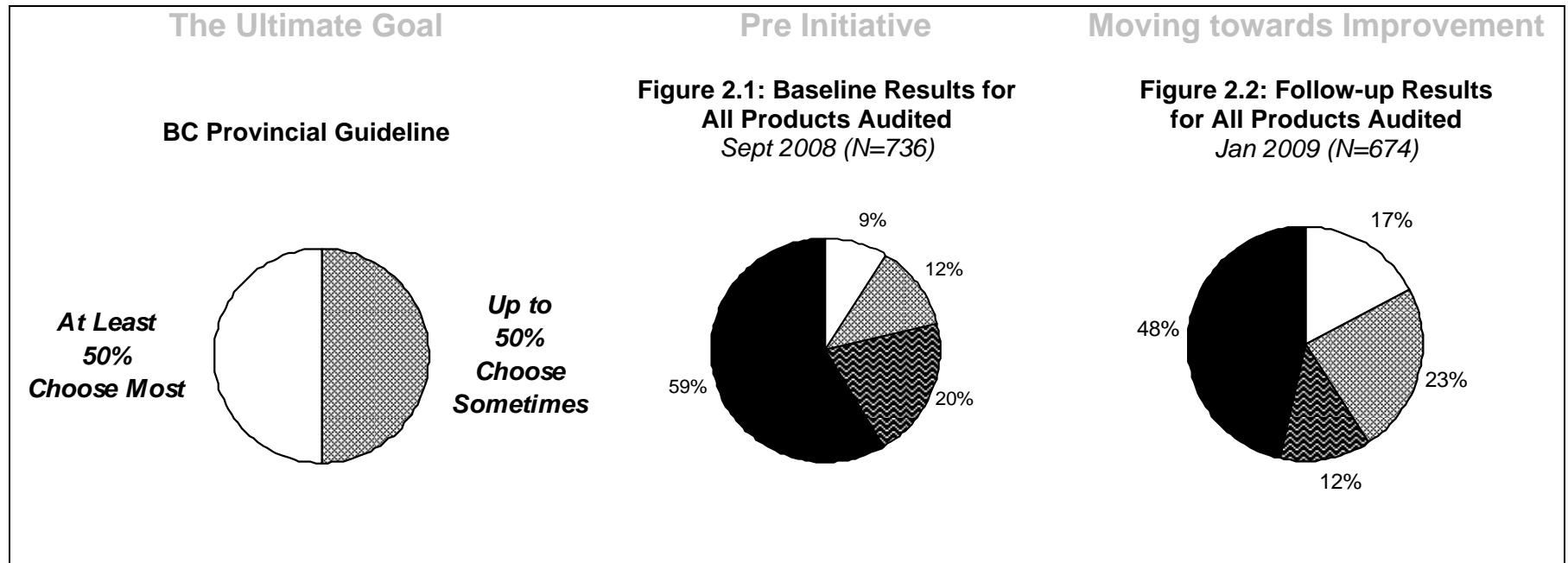
Description of Evaluation Activity

Each Community was randomly assigned four vending machines to audit (unless fewer than 4 were available). Whenever possible, two standard snack machines, and two standard beverage machines were audited. Products within selected machines were graded according to the Choose Categories using an online tool called the Brand Name Food List (www.brandnamefoodlist.ca). Choose Categories include Choose Most (CM), Choose Sometimes (CS), Choose Least (CL), and Not Recommended (NR). A baseline rating was taken from each of the selected machines before any changes were made. Towards the end of the project phase, communities were asked to follow-up and audit these selected machines again.

Vending Machine Audit Results According to Choose Category

There was a significant association between the proportion of products in each category and the time of data collected ($\chi^2=66.43$, $p<.001$) (See Figure 2.1). The proportion of products are compared to the BC Provincial Guideline in Figure 2.1

Figure 2.1: Comparison of provincial guidelines to baseline and follow-up vending machine audits of Phase I communities according to choose category

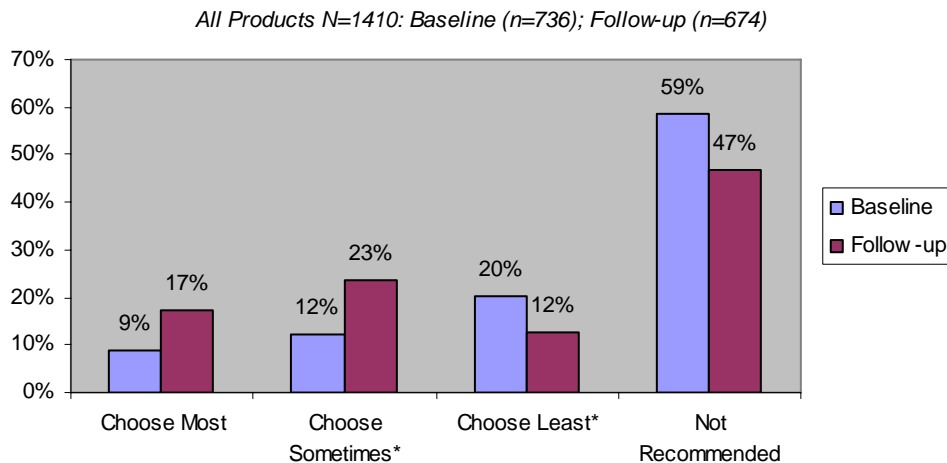


□ Choose Most ▨ Choose Sometimes ▩ Choose Least ■ Not Recommended

VENDING MACHINES

- The increase in the items from CS ($t(7) = -2.87, p = .024$) and decrease in items from CL ($t(7) = 2.73, p = .029$) were statistically significant ($p < .05$), while the changes in the items from CM ($p = .08$) and NR ($p = .06$) approached significance (See Figure 2.2).
- Figures 2.3 and 2.4 on the proceeding page show a breakdown between snack and beverage products.

Figure 2.2: Baseline to follow-up vending machine audits of Phase I communities according to choose category



* Difference was statistically significant at $p < .05$

Discussion:

- **Overall there was an average 20% increase of the desired CM and CS products in the vending machines of participating communities throughout the province between June 2008 and January 2009.**
- There was an 8% increase in CM and 11% increase in CS products between baseline and follow-up.
- There was an 8% decrease in CL and 12% decrease in NR products between baseline and follow-up.

VENDING MACHINES

Figures 2.3 and 2.4 show a breakdown between snack and beverage products

Figure 2.3: Beverage Products According to Choose Category

(N=605): Baseline (n=332); Follow-up (n=273)

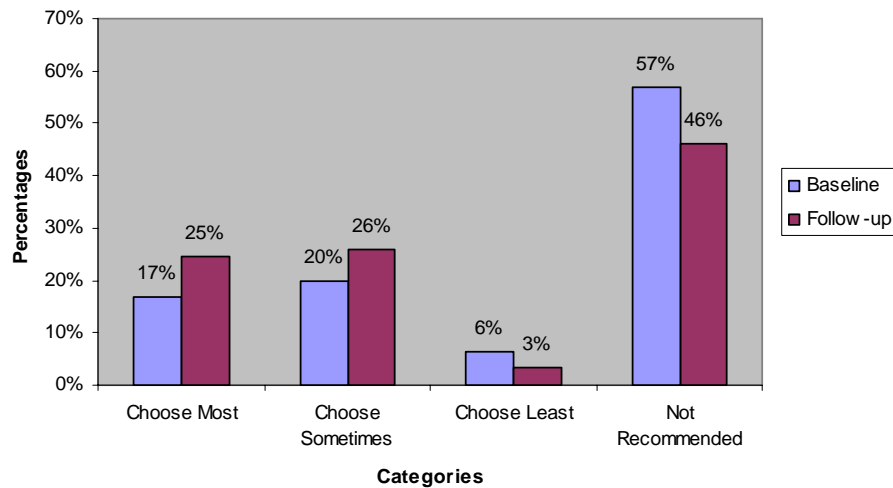
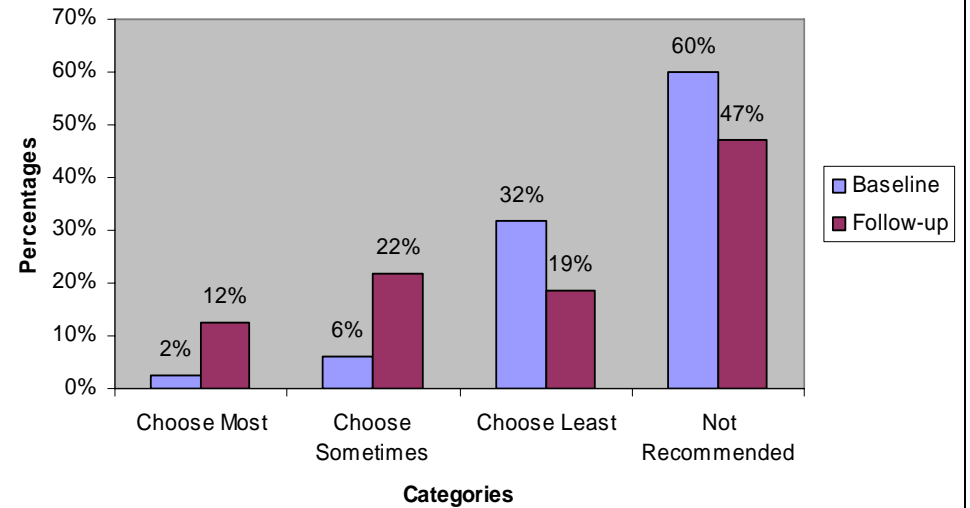


Figure 2.4: Snack Food Products According to Choose Category

(N=805): Baseline (n=404); Follow-up (n=401)



Discussion:

- Both snack and beverage machines in participating communities offered more healthy choices (CM/CS) and a fewer NR/CL products at follow-up than at baseline
- Figure 2.3 shows an 8% increase in CM and a 6% increase in CS *beverage* products between baseline and follow-up.
- Figure 2.4 reflects a 10% increase in CM and a 16% increase in CS *snack* foods between baseline and follow-up.
- **The greatest increase of CM/CS vending products was seen in snack machines compared to beverage machines (23% vs. 14%), although beverage machines at baseline began with a greater proportion of healthy choices.**

Vending Machine Changes in Communities Making Significant Changes

Discussion:

- 5 communities had significant shifts in their product categories ($p < .05$) as illustrated in figures 2.5-2.7
- **Those communities who were able to make significant changes to their vending machines had a 36% increase in healthy choice products (CM/CS) between baseline and follow-up in contrast to the 20% change across all communities.**
- A more significant increase in CM/CS products were realized for snack foods than beverages

Figure 2.5: All products according to choose category for communities who had significant changes in vending machines

N=843: Baseline (n=426); Follow-up (n=417)

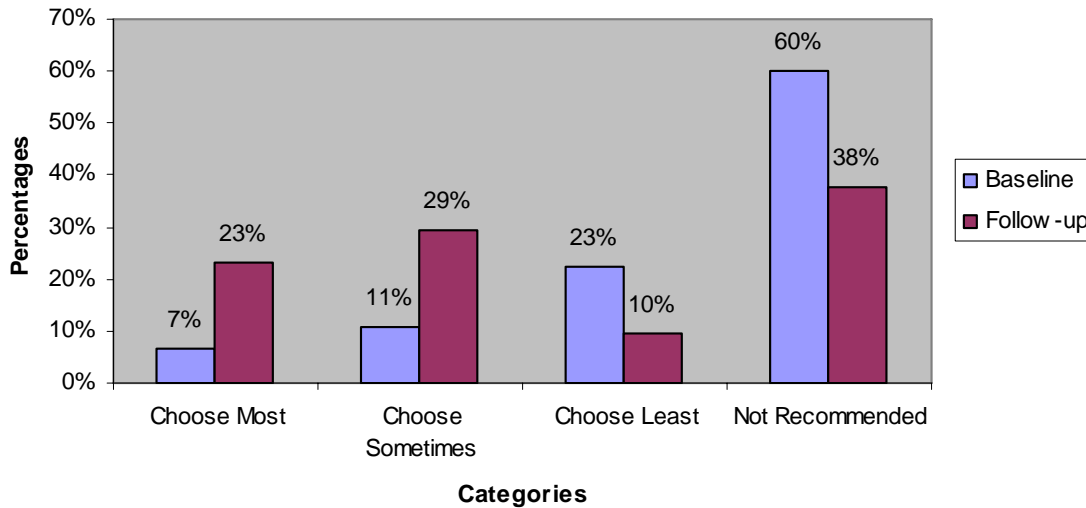


Figure 2.6: Beverages according to choose category for communities who had significant changes in vending machines

N= 364: Baseline (n=185); Follow-up (n=179)

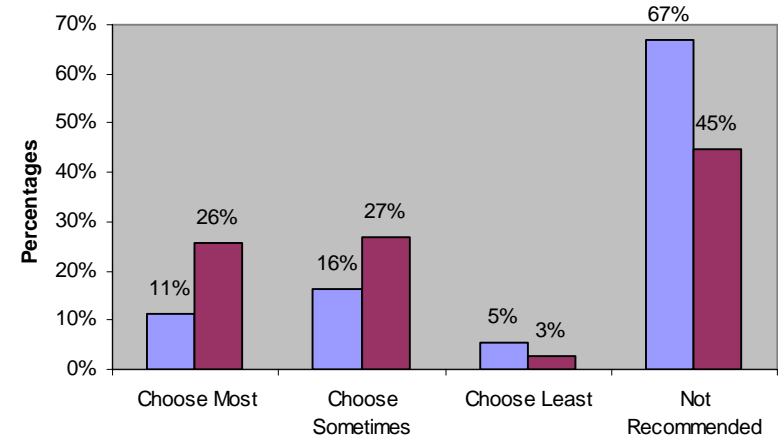
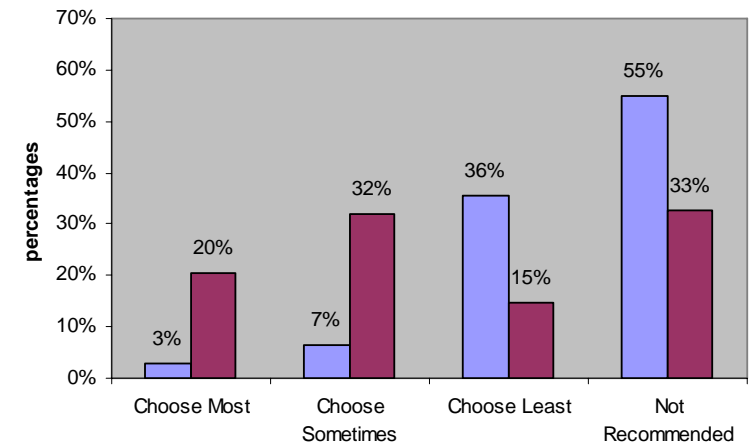


Figure 2.7: Snack Foods according to choose category for communities who had significant changes in vending machines

N=476: Baseline (n=241); Follow-up (n=235)



IMPACT ON PATRONS

Description of Evaluation Activity

Communities conducted four hours of surveying within their recreation facilities. Ideally this time occurred at high traffic hours when regular patrons were present in the facility. Patrons were asked to respond to a two-page survey which asked questions targeting purchasing patterns, attitudes and awareness regarding promotion and provision of healthy choices within the facility.

Surveys Completed

- Baseline surveys completed June-July 2008, N=316
- Follow-up surveys completed November 2008-December 2009, N=245

Description of Survey Participants

- The collected survey results in large part reflect the experiences and opinions of a variety of frequent facility users.
 - Patrons were relatively evenly split between those attending adult/senior programs and youth/children programs (See Figure 3.1).
 - 69% of patrons at baseline and 87% of patrons at follow-up use the facility one or more times a week (See Figure 3.2)

Figure 3.1: Nature of patron visits

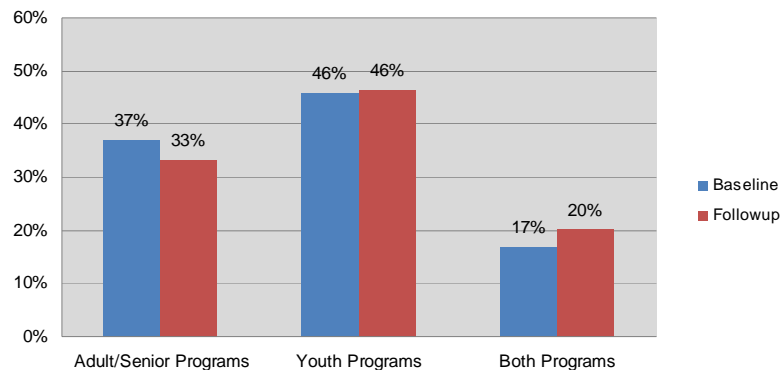
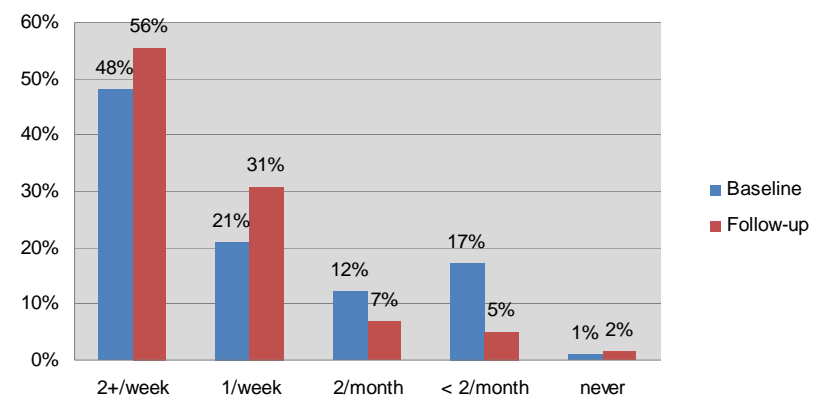


Figure 3.2: How often patrons visit the facility

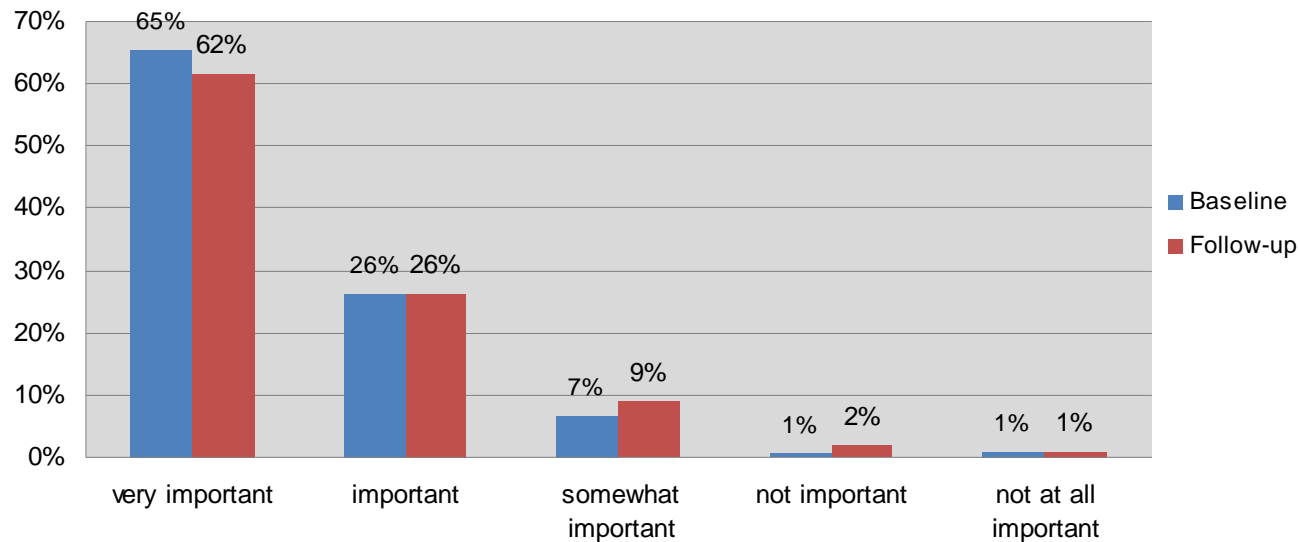


Description of Survey Participants

How important healthy eating is to them?

- A majority of patrons at both baseline (65%) and follow-up (62%) indicated that healthy eating was either important or very important to them.
- The number of patrons at follow-up who reported that healthy eating was very important to them appeared lower than at baseline but this was not statistically significant.

Figure 3.3: How important healthy eating is to patrons.



Patron Behaviours - Purchasing Patterns

How often do they buy?

Vending Machines

- 66% of patrons at baseline and 52% of patrons at follow-up indicated that they buy from the vending machines.
- For those who reported using the vending machine, a majority of them indicated that they made a purchase around 1 out of every 5 visits.

Concession Stands

- Approximately 70% of patrons at both baseline and follow-up reported that they visit the concession stand to purchase something at least some of the time.
- For patrons who reported using the concession stand, a majority indicated that they made a purchase around 1 out of 5 visits.
- Patrons surveyed at follow-up reported concession usage to be more frequent than those surveyed at baseline.
- **Overall, patrons indicate they only buy from the vending machine or concession 1 out of 5 visits or less**
- **However, approximately 30% of patrons indicated that they had made a food or beverage purchase at the facility the day surveyed.**

Figure 3.4: Frequency patrons buy from the vending machine

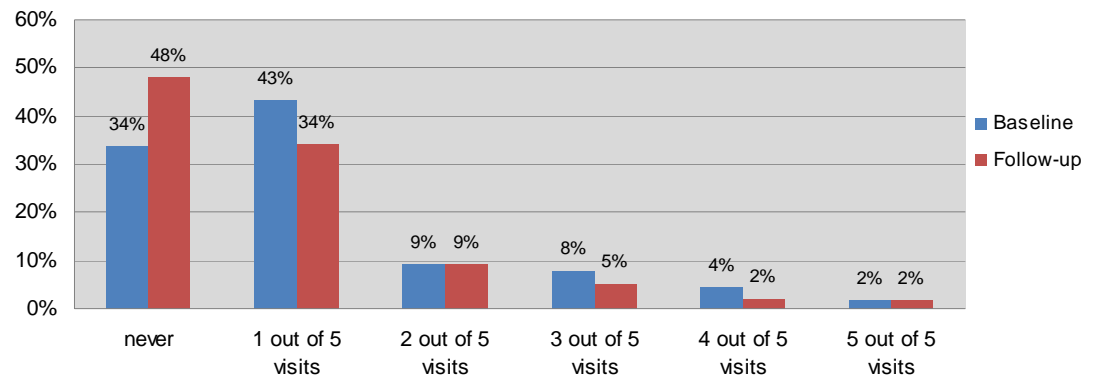
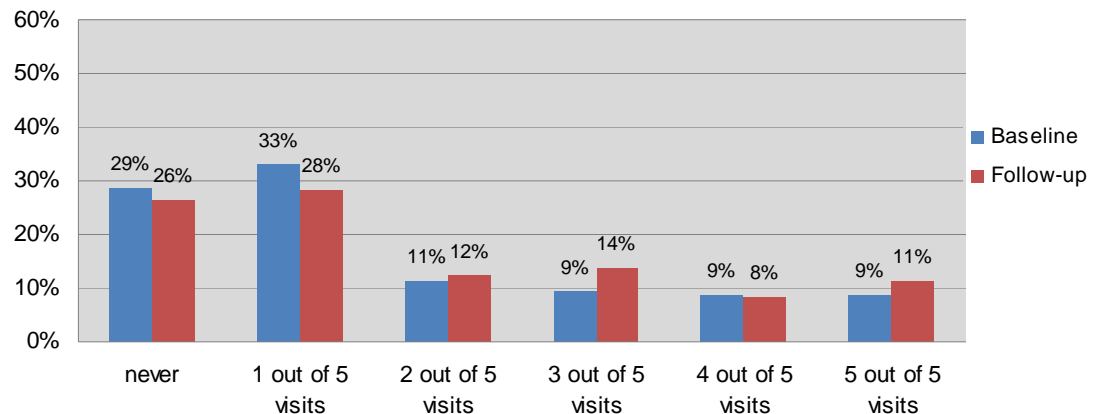


Figure 3.5: Frequency patrons buy from the concession stand



Patron Behaviours - Purchasing Patterns

What do they buy?

- Over half of patrons indicate they had not purchased products from the vending machines.
- Very few patrons report buying a meal at the vending machine or concession stand.
- Although more patrons reported using the concession stand at follow-up, their choices of purchases remained similar with those patrons surveyed at baseline.

Figure 3.6: What patrons typically purchase from vending machines.

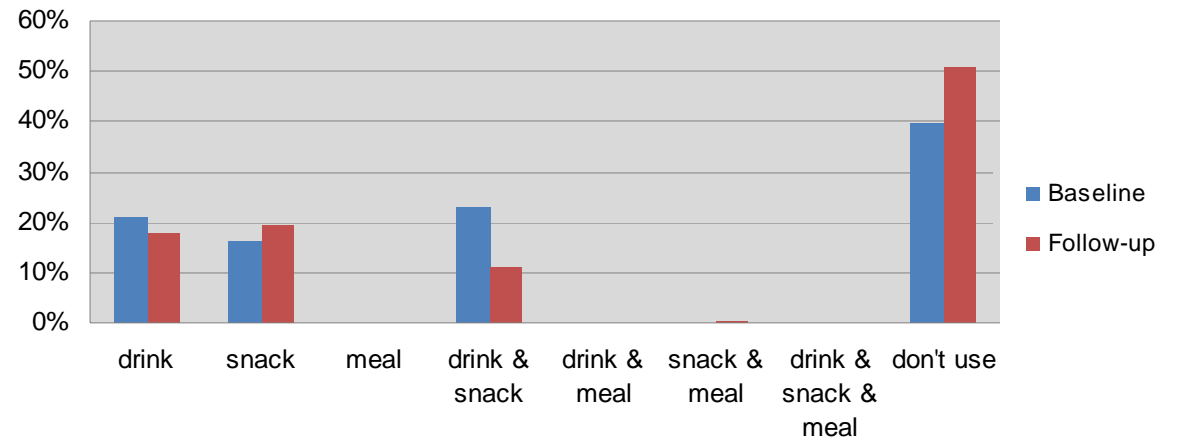
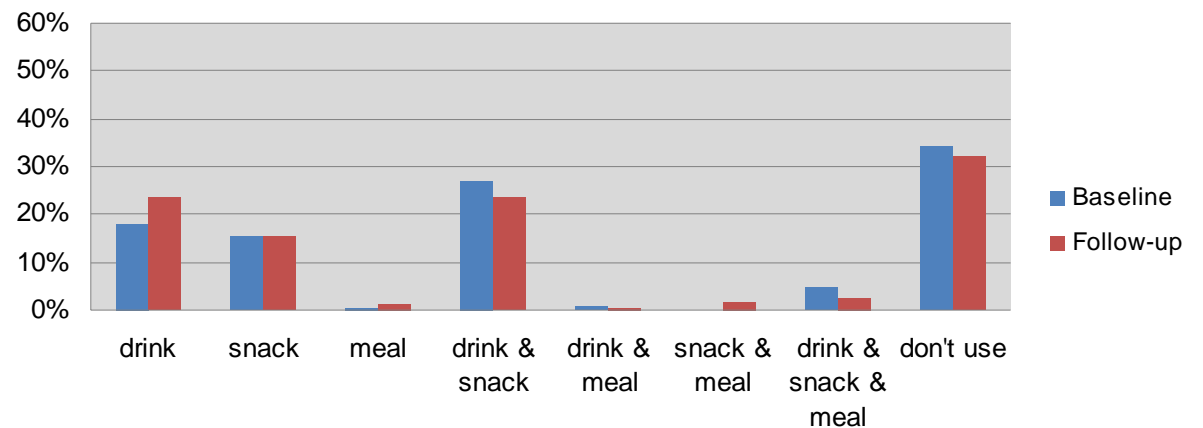


Figure 3.7: What patrons typically purchased from concession stands.



Patron Behaviours - Purchasing Patterns

How much do they spend?

- For those patrons at both baseline and follow-up who spent money at the vending machine, over 95% of them spent less than \$5.00.
- A majority of patrons at both baseline and follow-up spent between \$2.00 to \$5.00 at the vending machine and concession stand.

Figure 3.8: How much patrons typically spend at the vending machine.

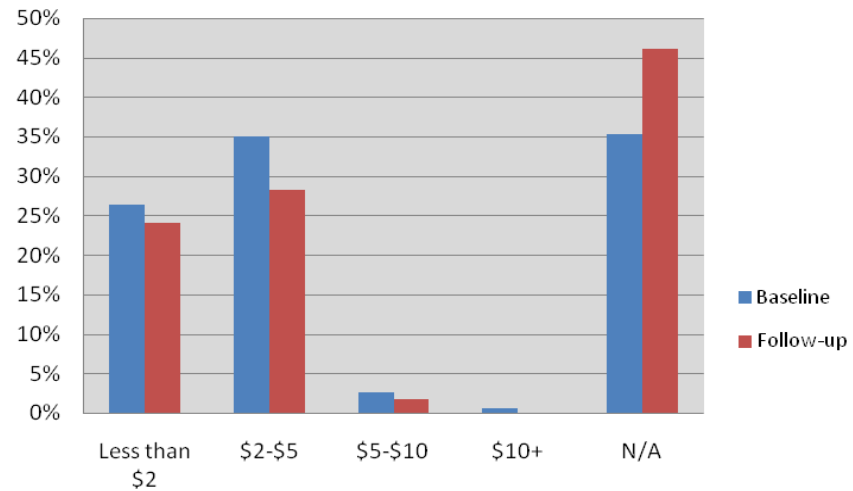
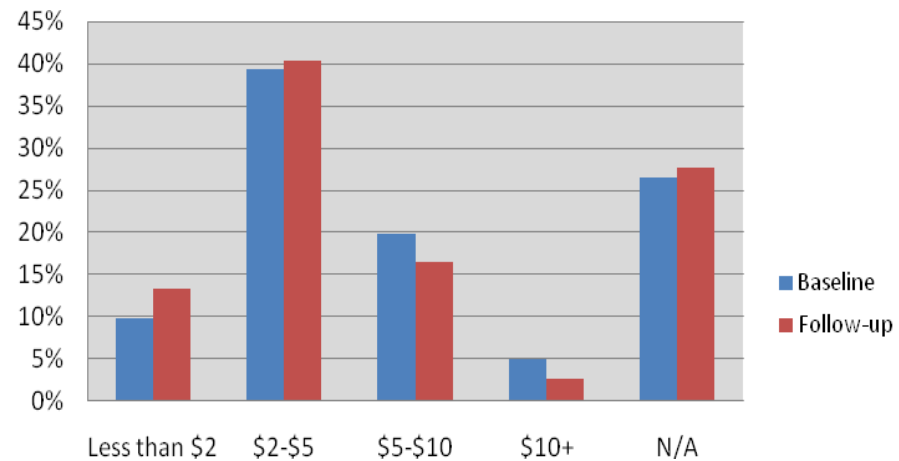


Figure 3.9: How much patrons typically spend at the concession stand.

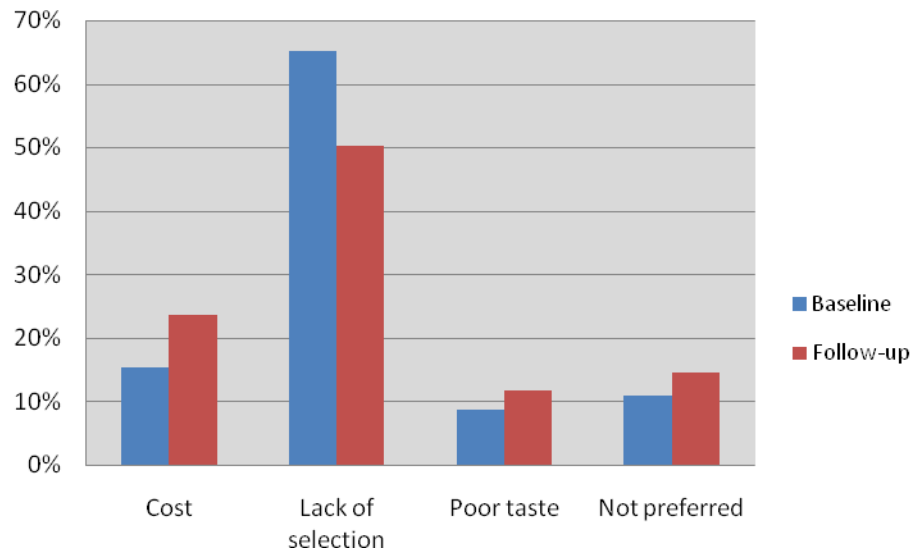


Patron Perceptions-Barriers

What were patrons' biggest barriers to choosing healthy options?

- The biggest barrier patrons experience to choosing healthy options was lack of selection (65% at baseline and 50% at follow-up), followed by cost (14% baseline, 23% follow-up).
- Project activities that include increasing healthy food offerings may be effectively removing the barrier of lack or selections.
- Popular choices for healthy items that patrons at both baseline and follow-up would like to see offered are nuts & trail mix, yogurt along with fruits and veggies & dip.

Figure 3.10: Indicated barriers to choosing healthy options



Patron Perceptions-Awareness of Healthy Eating Promotions

Was there a change in awareness?

- Approximately 25-30% of patrons reported being aware of any healthy eating promotions at both baseline and follow-up (See Figure 4.1)
- Approximately 20-30% of patrons reported that they noticed information or signage about healthy eating promotions at both baseline and follow-up (See Figure 4.2)
- Approximately 18-23% of patrons reported that they were aware of change in food and beverage products available in their facility (See Figure 4.3).
- **Overall, there was no significant difference in patron awareness of healthy eating information, events or promotions between baseline and follow-up.** Caution should be used when interpreting this result as many changes in communications and policies happened after follow-up and the sampling was limited by pragmatic constraints and was not random nor large enough to be representative.

Figure 4.1: Patrons were aware of healthy eating promotions or activities

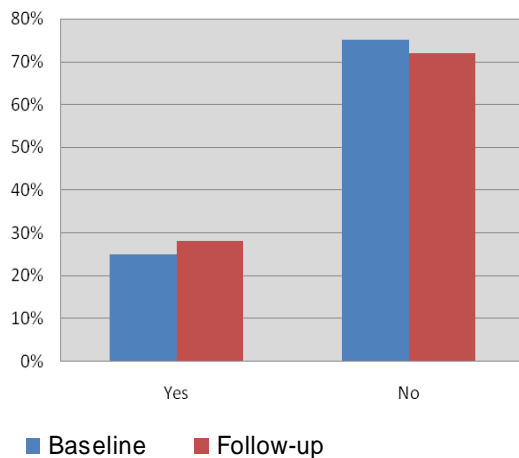


Figure 4.2: Patrons were aware of changes in information or signage about healthy eating promotions

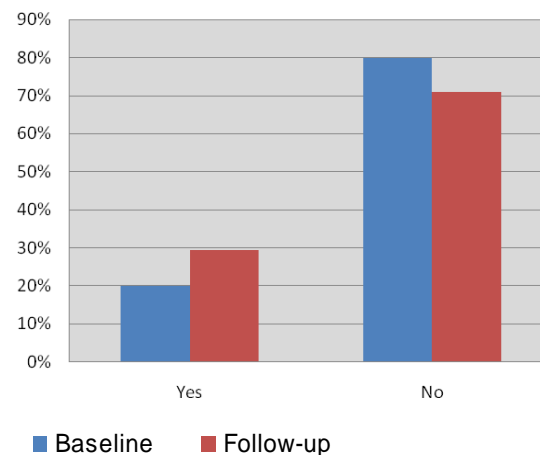
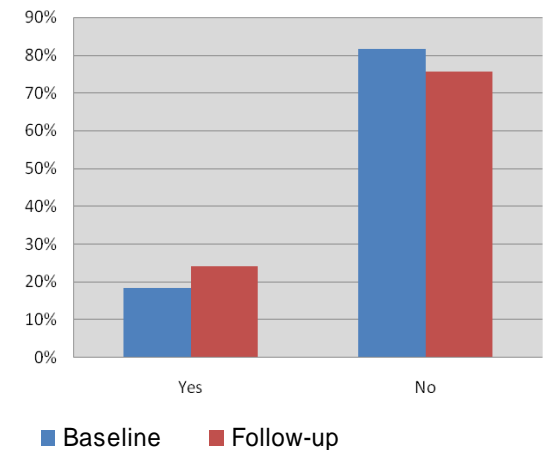


Figure 4.3: Patrons were aware of changes in food and beverage products available

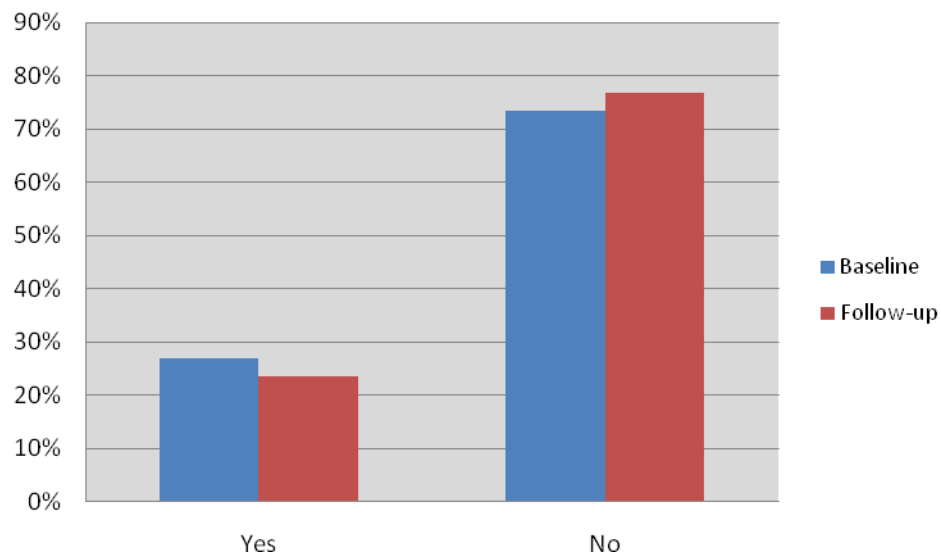


Patron Perceptions-Awareness of Healthy Eating Promotions

Did the campaign influence patron purchases?

- Approximately 25% of patrons at both baseline and follow-up reported changes in the promotion of healthy choices had influenced their purchases at the facility.

Figure 4.4: Patrons self indication of whether changes influenced their purchases.



Patron Survey- Summary of Intercept Survey Results

A majority of patrons at baseline and at follow-up ...

- Visited their recreation facility once a week or more.
- Said that healthy eating is either important or very important to them.

Those who buy typically ...

- Bought a beverage or a snack.
- Spent between \$2.00 to \$5.00 on food or beverages.

Concession and vending machines

- Patrons at follow-up reported using the vending machines less but the concession stand more often than those surveyed at baseline.
- Patrons at follow-up reported visiting the concession stand more frequently than those at baseline.

The road to Healthy Choices

- The biggest barrier to choosing healthy options was lack of selection. Patrons indicated that the top healthy choices they would like to see offered are yogurt, nut & trail mixes as well as fruit and veggies & dip.
- The second largest barrier to choosing healthy options was cost of products.

Change in Awareness

- Overall, there was no significant difference in patron awareness of healthy eating information, events or promotions between baseline and follow-up.
- A majority of patrons also reported that their choice of purchases has not been influenced by the intervention.
- Caution should be used when interpreting this result as many changes in communications and policies happened after follow-up and the sampling was limited by pragmatic constraints and was not random nor large enough to be representative.
- It should be noted that implementation of the 'Stay Active Eat Healthy' social marketing campaign was delayed and the process of change took longer than the project reporting deadlines. Anecdotally, more change has occurred since the follow-up data collection.

STAFF INTERVIEWS

The following are some key quotes from the interviews with staff who implemented the initiative:

“Everyone wants to eat healthy right, and in parks and rec. people keep coming back to that ... we work so hard at keeping people well...If you think of the wellness pie, nutrition is a big part of it, and we haven’t even thought about it yet and that doesn’t make sense.”

“Healthy eating is one of the things we are focusing on along with physical activity ... a lot of facilities push about being physically active. We are just trying to educate our staff and get it linked a little bit more, so it’s not just stuff about being active but eating good too.”

“[We are making] it easier for everybody to do this and easier for everyone to make healthier choices that we want them to make.”

“What I have noticed is that there are subtle changes in things that are happening which is really exciting. Like, for example, we had a general staff meeting this morning where generally there would have been doughnuts or something on the table. Today there were some homemade oatmeal cookies and juice. “

“I just wanted to say that this particular project has been really well supported by the funders. And the follow-through and the encouragement and all of the things that have been provided through this whole process have really been wonderful.”

“We had a general staff meeting this morning where generally there would have been doughnuts or something on the table. Today there were some homemade oatmeal cookies and juice”

“It has been a real favorable response. People are enjoying the change and knowing that they can actually go there and it doesn’t matter what they choose, it actually does have better nutritional value than what had been in there before. So that’s good.”

THE IMPLEMENTATION PROCESS

Table 5: Implementation themes according to barriers and facilitators

THEME	BARRIERS	FACILITATORS	KEY QUOTES
Money	<ul style="list-style-type: none"> • Revenue concerns • Capital output • Lack of funding for staffing 	<ul style="list-style-type: none"> • Grant funding • Money to pay staff, redesign menu and retrofit concessions 	<p><i>“Even some of the managers felt that it was going to affect their bottom line ... That they may lose revenue with those healthy choices. So that is yet to be seen.”</i></p> <p><i>“So funding was mainly used to pay for labour costs, which was really helpful, because obviously, most recreation departments and cities do not have money to run this type of project. I find quite often it’s difficult to follow through on projects because grants often don’t allow for labour.”</i></p> <p><i>“French fries are the biggest money source for our concessions and our goal or mandate and to take out the deep fryers. So how do we do that without taking money out of the individual concession owner pockets and /or minor sporting good team?”</i></p> <p><i>“For us the revenue we get from vending is directly used to support our programs and so if we lose a lot of money that way we can’t offer as many programs so we hurt the activity part as well as the healthy eating part.”</i></p>
Operations	<ul style="list-style-type: none"> • Lack of infrastructure needed to serve healthy foods • Process of having changes approved • Lack of policy • Disconnect between multiple facilities 	<ul style="list-style-type: none"> • Having a policy to refer to 	<p><i>“If you are just umm heating up a hot-dog or a hamburger with a deep fryer, that is a whole different set-up you need to make smoothies and salad, and vegetables”</i></p> <p><i>“We have another hurdle with converting to healthier food. The type of food being it being, you know, vegetables and produce, things without a very long shelf life. Not only the product itself, but the storage, for those areas, for those items and prep area”</i></p> <p><i>“There is no policy city wide or there is no policy within the facility. So it’s just sort of a very disjointed. There is nothing that’s really holding people to stick to the fire in terms of we have to do this, so we got concession here and that’s hasn’t changed.”</i></p> <p><i>“Most recreation facilities have separate managers, and they all work kind in silo... Even after this was approved by Mayor and Council there were still some managers who didn’t know much about the policy.”</i></p>

THEME	BARRIERS	FACILITATORS	KEY QUOTES
<p style="text-align: center;">Staff</p>	<ul style="list-style-type: none"> • Project staff turn-over • Challenges finding a project coordinator • Project coordinator not being a recreation staff member • Not having hired someone to have time exclusively committed to the project 	<ul style="list-style-type: none"> • Committed staff • Hiring a project coordinator • Having a project coordinator well known in their community • Hiring a new chef or concessionaire • Consultation from someone with a nutritional background 	<p><i>“I am always having to sell my next project to the front line staff because they are the ones that have to deliver it or take questions on it ... They are where the rubber hits the road!”</i></p> <p><i>“I think our committee might have worked a little better if we did have someone who was more of a decision maker ... It would really help to make those changes move a little quicker and more smoothly.”</i></p> <p><i>“Hiring in a project coordinator for a small community is a challenge.”</i></p> <p><i>“I was trying to doing it off the side of my desk, it stayed probably smaller scaled that it could have. If we had used the funding to hire somebody that would have been more efficient for us and a better use of the funds.”</i></p> <p><i>“The other thing that was really helpful was to have dedicated staff on the project. It helped to keep things a lot more consistent.”</i></p> <p><i>“The direct environment is not my area of expertise, not even close! ... Hiring a contractor with a nutritional background was really key.”</i></p>
<p style="text-align: center;">Industry</p>	<ul style="list-style-type: none"> • Poor communication or understanding with vendors • Poor communication or understanding with concessionaires. • Hard to find local suppliers with choose most-choose sometimes products 	<ul style="list-style-type: none"> • Meeting with concessionaires and vendors to do a needs assessment 	<p><i>“[The café was] trying to source other suppliers because they were having some difficulty with finding suppliers finding choose most choose sometimes products from local suppliers.”</i></p>

THEME	BARRIERS	FACILITATORS	KEY QUOTES
Buy-In	<ul style="list-style-type: none"> • From decision makers and managers • From community members • From front-line staff • From media 	<ul style="list-style-type: none"> • Politically favourable time to make changes towards supporting healthy lifestyles • Having support of decision-makers and leaders • Support from front-line staff • Support from key insiders (e.g. long-time community members or volunteers who run the sports leagues). 	<p><i>“Even our coordinator couldn’t see the intrinsic value in the development of a policy ... That was a really hard sell.”</i></p> <p><i>“The wife of the hockey league filled out a survey and really supports what we are doing...so she has some pull you know and her support will likely make a difference.”</i></p>
Attitudes toward change	<ul style="list-style-type: none"> • Resistance to change from concessionaires and rec. staff • Unfavorable attitude to change from patrons who were comfortable with the old way of operations • Patrons disliking new healthy options • Community resistance to outsider prescription for changing food environment 	<ul style="list-style-type: none"> • Acknowledgement from parks and recreations staff that supporting nutrition is important • Positive feedback from patrons 	<p><i>“And even the public liked the service that was there, so it was a bit of rough go initially until people saw what the new guys had in store.”</i></p> <p><i>“For some [staff] they have been there a long time and might not want to change.”</i></p> <p><i>“I gave [the menu to the concession stand owner so that he would have something to start off with. He has been quite resistant to change, actually extremely resistant to change.”</i></p> <p><i>“You know it is interesting what people’s perceptions are. You got black bean chili and you got all these homemade soups and whole grain sandwiches that a person with children would think “well what would my kid eat?”</i></p>

THEME	BARRIERS	FACILITATORS	KEY QUOTES
Communication	<ul style="list-style-type: none"> • Maintaining consistent messaging between multiple facilities • Communicating to front-line staff • ESL population made evaluation and communication difficult • Overcoming negative media coverage 	<ul style="list-style-type: none"> • Meeting with other participating communities to hear what they are doing and experiencing • Website 	<p><i>“For a district like ours where we have four facilities. It is challenge to get everybody getting the same message.”</i></p> <p><i>“The media got a hold of it and put a very negative spin. That was a challenge to over come that keeping it very positive and lot of community and really, and then reeducate and come from a negative point instead of a neutral point.”</i></p> <p><i>“And it is really useful ... having those face-to-face meetings ... hearing those stories of what other municipalities are doing.”</i></p> <p><i>“Connecting with other communities has been the number one aspect and having those meetings and sharing the successes.”</i></p> <p><i>“We had a meeting with the concession operators and I brought, ideas we were going to implement...and we discussed how I was going to support them. It was an opportunity for them to ask questions and us to answer them with out media ... it was good to have them communicate back and forth too.”</i></p>
Time	<ul style="list-style-type: none"> • Project timeframe too short • Poor timing for project (summer months when staff away and programming different) • Having idealistic goals • Locked into contracts 	<ul style="list-style-type: none"> • Project timeline is motivating 	<p><i>“Although there were lots of frustrations with the tight time-line, that certainly kinda kicks you in the butt to get going. Just to be blunt. It keeps you on track. Unfortunately having the staff changes... and all these other pieces definitely made the timeline too tight.”</i></p> <p><i>“Nothing has gone as fast as we thought it would.”</i></p> <p><i>“It took over a month to get that nutritional policy passed through all the committees and it ended up going to Mayor and Council.”</i></p> <p><i>“BCRP was asking for final reports at the end of summer. Most of the facility managers were on holiday ... and Council only meets once a month in the summer ... Maybe if it was at a different time of year and it would have worked and we could have met those timelines.”</i></p> <p><i>“I think as much as these deadlines were way too short, if there is a push then you know what it may never, it may well get put off until next year. Even though it may not be realistic it’s helped me to see what we could do until December and say ‘hey we are part of this provincial community that is involved’.”</i></p>

THEME	BARRIERS	FACILITATORS	KEY QUOTES
<p>Project specific</p>	<ul style="list-style-type: none"> • Evaluation process too much work/not suitable • Short timelines 	<ul style="list-style-type: none"> • Evaluation process provided better understanding • Project toolkit was useful evaluation, planning, and resources • Clout of participating in a province-wide initiative • Support from project and evaluation staff 	<p><i>“So my main challenge was that I was very idealistic and saying ya I’ll do this, its no big deal. You don’t even realize how big this project it is until you start taking it apart and getting into it.”</i></p> <p><i>“Having really supportive and flexible staff at BCRPA that were willing to work with us and talk to us regularly, that was really great.</i></p> <p><i>“Doing the audits, as tedious it may seem, it was really helpful to really understand what the impact is.”</i></p> <p><i>“With these types of projects, it is critical whoever that evaluation component is as involved as possible. Because it really keeps everyone on track and paints a really clear professional picture of what is going on and brings the communities together.”</i></p> <p><i>“The toolkit, the survey, everything they were resource that were support. We didn’t have to create them on our on. If we did create something, it was in addition to it, we could just add to it. So it was a good baseline of information and tools.”</i></p> <p><i>“The toolkit was good. It helped keep me on track and a lot of the stuff that was in the toolkit, in terms of what to do first and what to do next ... It was good for resources and examples. It was really helpful for different websites to look at. For people who aren’t normally in the nutrition field or even if just trying to find examples of other cities and what other people are doing.”</i></p> <p><i>“Being a part of an official project is as valuable as the money”.</i></p>

Barriers and Challenges

Project representative from each participating community were asked what factors were the largest barriers they experienced in their process of implementation. The following table shows what factors were indicated as the greatest barriers and challenges. Items are listed top to bottom, from most frequently to least frequently indicated.

Table 6: Barriers and challenges from most indicated to least

BARRIERS & CHALLENGES	Community								
	1	2	3	4	5	6	7	8	9
Revenue concerns	x		x	x			x		x
Buy-in and support from decision makers and managers		x			x	x	x		x
Buy-in from front-line staff	x	x	x		x		x		
Disconnect between multiple facilities		x			x	x	x		x
Evaluation process too much work/not suitable		x				x		x	x
Challenge of change	x			x			x		x
Ongoing monitoring of food environments (e.g. ensuring vending machine stocked correctly)					x	x	x		x
Project staff turn-over	x		x			x			
Capital output	x			x					x
Lack of policy			x		x	x			
Working with vendors				x	x	x			
Project coordinator not being a recreation staff member		x		x					
Locked into contracts (e.g. for vending or concession)			x			x			
Working with Concessionaires (e.g. lack of cooperation)		x		x					
Project timeframe is too short			x			x			
Wrong timing for project						x			x
Overcoming negative media coverage				x					
Sporting teams bringing in outside food				x					
Not having hired someone to have time exclusively committed to the project					x				
Food venues only open seasonally				x					
Hard to find local suppliers with choose most-choose sometimes products							x		
Patron/community member perceptions							x		

Facilitators

Project representative from each participating community were asked what factors helped them to proceed in implementation of the changes. The following table shows what supports and resources were indicated as the most useful facilitators. Factors are listed top to bottom, from most frequently to least frequently indicated.

Table 7: Supports and resources from most indicated to least

Supports and Resources	Community								
	1	2	3	4	5	6	7	8	9
Resources Toolkit (MRFEAT=Municipal Recreation Food Environment Action Toolkit)	x	x	x	x	x	x	x		x
Funding helped with activities	x	x	x		x			x	
Face-to-face meetings with other participating communities			x		x	x	x		
Supportive management/champions		x				x	x		x
Funding helped with paying staff run the project			x	x			x	x	
Evaluation process helped facilitate deeper understanding and keep on track			x	x	x				
Hiring a consultant	x			x				x	
Being part of a province-wide imitative	x				x				x
Hiring someone with nutritional expertise	x					x			
Consistent staff			x						x
Motivating timelines	x		x						
Good political climate and timing					x		x		
Open dialogue with staff about roadblocks experienced along the way	x			x					
Key “insider” support (e.g. persons who run sporting leagues, or long-time community members)		x						x	
Approval and support from decision makers (e.g. Council)						x	x		
Support from project staff (BCRPA and evaluation)				x				x	
Website and place to connect without communities			x				x		
Additional local funding support				x		x			

SUSTAINABILITY

In interview and through Final UBCM reports, project staff from communities indicated the following items when asked what their community was going to do, as their next steps in continuing to support change toward healthy food and beverage options. Factors are listed top to bottom, from most frequently to least frequently indicated.

Table 8: Planned future actions by prevalence

Planned Future Action	Community								
	1	2	3	4	5	6	7	8	9
Mentor and partner with others in supporting healthy food environments	x	x	x	x	x	x	x	x	x
Provide education and awareness/promotion	x	x		x		x	x	x	x
Work on concessions (changing menu, retrofitting, hiring new chef)	x		x	x	x	x	x	x	
Implement food policy	x			x	x			x	x
Develop food policy	x	x	x			x	x		
Expanding scope of change to other public buildings/venues (e.g. other Recreation Facilities, City Hall, sports clubs, parks)		x			x	x	x		
Monitor/evaluate vending and/or concession to ensure supply of healthy options	x		x			x	x		
Working on vending						x	x		x
Incorporating healthy eating into programs						x			x
Staff training							x		x
Looking into healthy options for sports fundraisers	x						x	x	
Development/expansion of Committee								x	x
Healthy Choices Committee will continue to meet and review progress		x				x			
Hosting local pocket/farmers markets at facility		x							
Food sampling									x

Key Quotes Regarding Sustainability

Mentoring → *“The other thing that I did was [a few other BC communities]... asked me to come in for their October meeting to give a presentation...I was able to give them the information about what we have been doing her and gave them the handouts, basically, like the audit.... to see what we are doing, maybe take it back to their facility and start to do the same thing.”*

→ *“How can we still carry on without losing that connection? I think having to help phase II and phase III communities so we’re still involved that will help us but we still long term care”*

Expanding Scope → *“I think that even before the end of five year, we will see other facilities coming on board and we will support and educate them. So far we have targeted recreation, concession within recreation facilities, I can see other ones coming on board, and we would support them.”*

→ *“We are renewing all our concession contracts and they are according to the new guidelines.”*

→ *“We created a 5 year program and are addressing 2 concessions a year.”*

→ *“We have staff that works with [the Regional Healthy Authority] that also work part-time here. And he is has been exploring other avenues for fundraisers for sport groups. So he is looking at other options and will be putting that into our sports centre.”*

→ *“We are going to look into some of those other thing is was talking about to see if we can actually take this beyond the Rec Centre and to the baseball diamonds and the Municipal Hall.”*

Training → *“So then I’ll be doing an educational component about our vending and food services and how we are incorporating that change, so our staff is very aware of what is happening and they can help promote wellness to our patrons.”*

Next Steps

The following list some of the key goals and actions that Phase I communities indicated they would implement to ensure the positive changes made in their recreation food environments are sustainable.

- Ongoing programs, vending taste test feedback to operators, supplier of healthy snacks, pocket markets, advertising
- Menu changes and information surrounding it, development of food policy
- Five year plan (policy) that will supply funds, equipment, signage to implement HFBS policy
- Mayor and council approval; implementation of nutritional health policy
- Ongoing audits of concessions, Healthy Choices fairs, more marketing and education materials, supports and resource information for those making the switch
- Ongoing evaluation, expanding healthy choices into other departments, working with partners, School based programs to eat more fruits and veggies
- HFBS Policy will guide all community organizations using the centre, healthy eating council may happen
- Food policy snack food vending contract changed, continuing partnerships

Requested Future Support

The following were items that communities indicated would help them proceed with their project in the future beyond the grant phase:

Communication and Connection

→ *“I would just say ongoing communication with other communities. In particular teleconferences. Now we talked about that at the meeting. Just maintaining communication and we moving forward and just sharing our information so we are aware of what is out there. To find out how to get over barriers and to celebrate successes as well.”*

→ *“As far as support goes, as the healthy food and beverage project program carries on and progress and phase ii comes up with a brilliant idea I think it would be beneficial to hear about that.”*

→ *“Getting a website would probably be helpful and that way any new information or new resources or new links to other cities, or policies or other things that could be put into a central place where we could find that information.”*

→ *“And at this point there is no sense in reinventing the wheel because the work has already been done and there is tips on how to switch that over would be easier and support in that direction would be useful.”*

Funding and Human Resources

→ *“Funding for labor is always an issue. Definitely a source is through applying for other grants that support physical activity type projects that will still incorporate healthy eating issue.”*

→ *“It would be nice to have a little bit of ongoing funding just to have to continue to promote awareness. And then to cover some of those really small costs associated with committees and that type of thing.”*

CONCLUSION

This report shows that significant changes can occur within municipal recreation food environments even within a short period of time, through a well supported initiative. Over greater amounts of time, greater impacts can be expected in all areas of food environments within municipal recreation facilities and public buildings.

Evaluation practices and tools have been revised for future phases of the project to better suit the needs of recreation providers and more accurately reflect the wide spectrum of areas of change. Most notably, instruments have been created to evaluate food services and policy development, and a more suitable evaluation approach has been developed for First Nations communities.

Continued communication with Mentor Communities and communities participating in future phase will be key to sustaining changes in catalyzing greater change toward healthy food and beverage environments in recreation venues and local government buildings in BC.