Healthy Food and Beverage Sales
In Recreation Facilities and Local Government Buildings

Phase II Facilities
Evaluation Summary Report

January 2010
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This Phase II Evaluation *Summary Report* represents the highlights from the *Phase II Evaluation Technical Report*. For a more comprehensive and detailed converge of the findings please refer to the *Technical Report.*

University
of Victoria

Evaluation Team:

Authors: Suzanne Vander Wekken, B.A., Patti-Jean Naylor, PhD
Research Assistants: Emily George B.A., David Trill B.A., Susanne Sørensen, M.Sc.

School of Exercise Science, Physical and Health Education
Institute of Applied Physical Activity and Health Research
University of Victoria

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Introduction

The BC Healthy Eating Strategy was developed and formally adopted by the BC Healthy Living Alliance (BCHLA) in May 2007 as one of four targeted approaches to health promotion in the province. Within the Strategy were four initiatives targeted at increasing the availability of healthy food choices, consumption of healthy choices, and skills related to making healthy choices in environments where families live, learn, work and play. This report documents the community-level evaluation findings of the second grant phase of one of these initiatives--Healthy Food and Beverage Sales in Recreation Facilities and Local Government Buildings (HFBS).

This report presents the community-level findings of the Phase II evaluation sub-contracted through the Social Research Development Corporation and the Michael Smith Foundation for Health Research and implemented by the University of Victoria Institute of Applied Physical Activity and Health Research. Data was provided by the 17 Phase II communities that addressed the food environment within their recreation facilities. Figure 1.2 summarizes the primary operational areas where food policy and programs have an impact within recreation facilities and where change can be addressed. This framework provided an outline for project implementation and evaluation.

The evaluation findings are intended for the following audiences:

1) BC Healthy Living Alliance

2) Michael Smith Foundation for Health Research and the broader health promotion research community

3) BC Recreation and Parks Association

4) Phase II Communities

5) Public health, municipal and recreation stakeholders

6) Decision/policy makers- locally and provincially

Ultimately we hope that the results of this evaluation contribute to ongoing changes in the food environment for children and families in BC and other jurisdictions.

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Background

Prior to the implementation of the BCHLA strategy a provincial needs assessment explored the current food environment in British Columbia recreation facilities; it found that municipal recreation facilities across the province had eating environments that were not 'health promoting' and in fact appeared 'obesogenic'[1] . The needs assessment also showed that recreation stakeholders were interested in improving this situation and so with funding from the Childhood Obesity Foundation of BC and the Ministry of Healthy Living and Sport, they developed and piloted a toolkit to mobilize and support action at the community level. This toolkit was called the Municipal Recreation Food Environment Action Toolkit (MRFEAT). The toolkit outlined multiple settings within recreation where healthy food options could be either provided or promoted (including but not limited to food and beverage sales) and provided samples and resources to facilitate positive changes. Figure 1.2 summarizes the primary operational areas where food policy and programs have an impact within recreation facilities and where change can be addressed. This framework provided an outline for project implementation and evaluation.

The BCHLA BC Food and Beverage Sales in Recreation Facilities and Local Government Buildings Initiative (HFBS) adopted and adapted the tool kit and the broader food environment model from MRFEAT to facilitate change in municipal recreation facilities. The HFBS initiative was entrusted to the British Columbia Recreation and Parks Association (BCRPA) and the Union of British Columbia Municipalities (UBCM) to lead (See Figure 1.1). The project aimed to: a) build organizational and community capacity for action b) provide support to local government buildings and recreational facilities to encourage the voluntarily adoption of the healthy food and beverages guidelines for public buildings [1] and c) encourage the provision or promotion of healthy options in all areas of recreation operations (e.g. children's programs and events). Therefore the primary target of the initiative was municipal recreation facilities. Based on the experience of a pilot phase, a secondary target of provincial activities was the food and beverage industry that is a key partner in changing these facility food environments.

The expanded HFBS initiative was piloted and evaluated to determine the feasibility and impact of the initiative on municipal recreation food environments. There were several phases: Phase I piloted the revised MRFEAT toolkit with 10 communities. Phase II rolled out the HFBS initiative starting with 17 communities, the findings of which are reported here. Phase III is ongoing with 5 communities and Phase IV has just been initiated. Additional funding was available to First Nations Communities during all phases. Five First Nations communities received grant funding in Phase II. Findings from these communities were not included in this report as a unique evaluation approach was implemented (refer to "BC First Nations Healthy Food & Beverage Community Initiatives" report).

The community-level evaluation of Phase II of the HFBS initiative was sub-contracted through the Social Research Development Corporation (SRDC) and the Michael Smith Foundation for Health Research (MSFHR) and implemented by the University of Victoria Institute of Applied Physical Activity and Health Research (See Figure 1.1). The purpose of evaluating the Healthy Food and Beverage Sales project was: 1) to describe what activities were undertaken 2) to determine the impact of HFBS project on the food

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[1] 'Obesogenic' environments are places where "the influences, surroundings, opportunities, or conditions of life promote obesity in individuals or populations." Swinburn B, Egger G. Preventive strategies against weight gain and obesity. *Obesity Reviews* 2002;3(4):289–301

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environment, patrons choices, policy and planning capacity; 3) to identify key issues related to implementation; and 4) to act as a catalyst to support communities in the planning and process of making sustainable changes. Data was provided by the 17 Phase II communities that addressed the food environment within their recreation facilities.

It should be noted that the evaluation was developed 'a priori', based on experiences in Phase I. It was designed both to collect 'common indicators' across communities (core components) and to be flexible; recognizing the breadth of variation in context, planned activities and implementation. Each community was asked to complete the core components and they could complete optional components depending on their overall goals and activities. For instance, if a community planned to address policy they completed the Policy Assessment tool.

Figure 1.1: Project Organizational Chart

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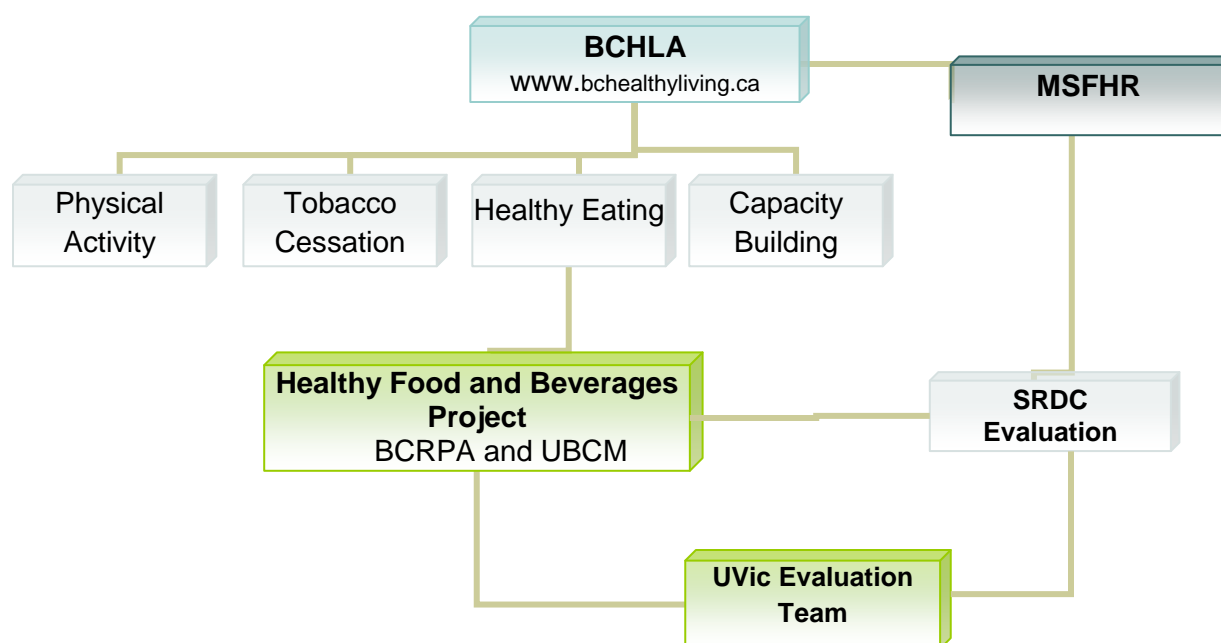
Description of the HFBS 'Phase II Initiative'

In February 2009, 17 communities across BC applied to participate in the HFBS initiative – Phase II. They responded to a call for proposals that was issued through the BCRPA website and annual conference and through the UBCM and BCHLA websites and newsletters. As during Phase, I the range of recreation facilities involved included pools, ice arenas, curling rinks, fitness gyms, multiplexes, and outdoor sporting facilities.

Once their application was accepted each community was provided a toolkit detailing the steps they would need to take to improve healthy eating within their facility and awarded funding of $7,500 CDN to support staff, implementation and evaluation activities. Project coordinators from each community attended an all-day orientation meeting where they were provided with further resources and information including planning tools, a model of the recreation food environments (see Figure 1.2), sample policies, presentation templates, marketing materials, sample contracts & requests for proposals for vendors and real world 'better practice' stories. In addition, these project leads were trained on the use of the evaluation / assessment tools.

Phase II Communities:

- Comox Valley Regional District
- Capital Regional District-Panorama Recreation
- Sooke & Electoral Area Parks and Recreation Commission Leisure Complex
- Corporation of Delta
- Fraser Valley Regional District-Hope
- District of Ft. St. James
- City of Kamloops
- Lillooet
- City of Nanaimo
- City of New Westminster
- Regional District of North Okanagan
- City of Port Coquitlam
- Quesnel and District
- District of Taylor
- Vancouver Parks Board and Community Associations
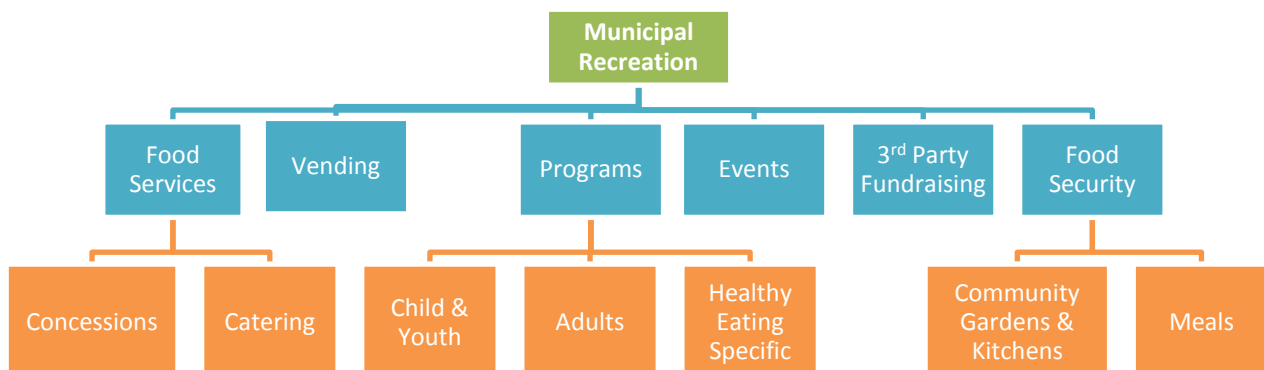- City of Victoria
- City of Williams Lake

Resources were also made available on the initiative website and support was provided through face-to-face visits; monthly teleconferences; and phone and email consultations with the program and evaluation staff. Training and access to the Brand Name Food List and Dial-A-Dietitian provided additional support. The BNFL is online tool for rating packaged and franchised foods and beverages and was designed to help those searching for products that meet the BC Nutrition Guidelines. Dial-A-Dietitian is a call-in support line that provided additional counsel for those experiencing challenges using the BNFL or finding healthy products.

Community recreation facility staff and community stakeholders worked together to assess, plan, set goals and implement change activities that were chosen based on their context and targeted aspects of their food environment as defined by the recreation food environment model (See Figure 1.2).
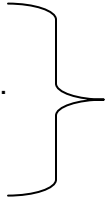
Figure 1.2: Operational areas within recreation where food policy and programs may have an impact

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Evaluation Objectives

The purpose of evaluating the Healthy Food and Beverage Sales project was:

1) To describe what activities were undertaken.   ⟶   *What Went On?*

2) To determine the impact of HFBS project work on:

- ✓ The overall facility food environment.
- ✓ Policy development and strategic planning efforts.
- ✓ Vending and concession services.
- ✓ Customer choices and perceptions.

What was the Impact?

3) To identify key issues related to implementation:
- ✓ The process of changing food & beverage sales.
- ✓ Facilitators and barriers to implementation.
- ✓ The use of project resources and supports.
- ✓ Plans for future action and sustainability.

How Did it Go?

Where to Next?

4) To act as a catalyst to encourage and support communities in the planning and process of making sustainable changes.

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Training, Tools & Data Collection

Based on the objectives of the evaluation there were 6 primary components including 1) A facility assessment, 2) policy assessment, 3) food services audit, 4) vending audit, 5) patron survey and 6) an interview (See Figure 1.3 and Table 1.2). The evaluation team provided training on how to use the evaluation tools and complete the evaluation process during the 6 regional orientation meetings hosted by the provincial project coordinator from BCRPA in February 2009 (See Figure 1.3). Attendees were provided an evaluation toolkit with instructions and copies of each of the evaluation tools. A digital copy of the evaluation toolkit and forms was also made available on the Stay Active Eat Healthy initiative webpage. Training was provided over the phone for those who were unable to attend.

Once communities had been trained they were asked to conduct baseline facility assessments, vending audits and patron surveys and if applicable, a policy assessment and food services audit. This baseline was intended to provide a snap shot of how things were before the initiative began. Once baseline evaluation activities had been completed, communities were encouraged to proceed with making changes, providing and promoting healthy choices. After several months of implementing changes communities were asked to revisit the evaluation tools and collect a follow-up measure and additionally share a bit about their experiences in implementing the changes in a telephone interview. Many communities delayed completing the evaluation because of factors such as seasonal facility closure, shortage of staff time and a desire to ensure their intervention was complete before data collection.

Throughout the initiative communities were encouraged to contact the evaluation team via email and/or phone if they required support or assistance. An evaluation coordinator participated in project teleconferences to respond to community questions about the evaluation. In addition, an honorarium to each community was provided by BCRPA as a supplement to the grant to reimburse for the staff time needed to complete the evaluation.

All quantitative data, including facility assessment, vending audits, policy assessments and patrons surveys were entered and analysed in Excel and SPSS by the evaluation team beginning in November. Interviews were recorded digitally, transcribed and explored for common themes in NVivo 8.0™, a qualitative analysis software program. Grant Applications and Final Reports submitted to UBCM by the communities were also imported and analysed in NVivo 8.0™ to discover goal and achievement areas

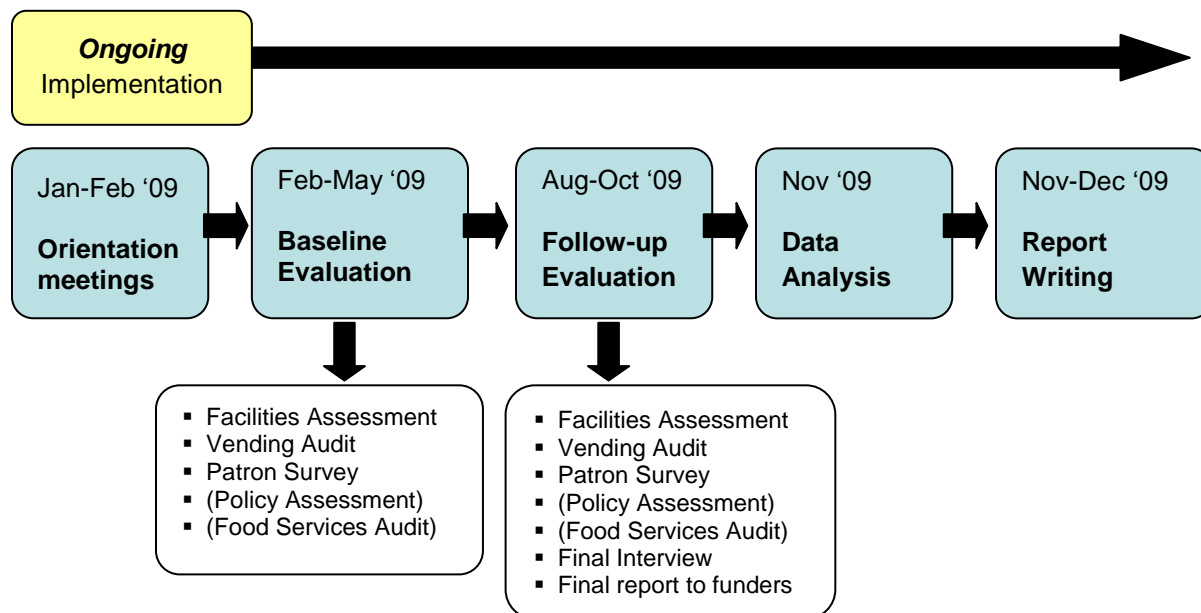**Figure 1.3: Phase II evaluation timeline and evaluation activities**

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Table 1.2: Evaluation Activities Completed for Phase II

EVALUATION ACTIVITY & PURPOSE	BASELINE	FOLLOW-UP
Facilities Assessment Community self-assessment that assesses the extent that organizational capacity and facility environment support healthy eating. This assessment is based on a 4-point rating scale and divided into three main categories: 1) Strategic Planning**,** 2) Supportive Environments and 3) Communication & Education.	Feb-Mar 2009 **17 Communities**	Sep-Oct 2009 **17 Communities**
Policy Assessment To assess the development of healthy eating policy within the organization. This assesses if policy is developed in the areas of food provision, events and programs and staff. Staff may rate if specific policy is in place according to "yes", "no" or "in progress." The policy assessment tool is in the pilot phase and was optional for communities to complete.	Feb-Mar 2009 **10 Communities**	Jul-Oct 2009 **10 Communities**
Food Services Audit Assess the operations, preparation facilities and foods served through food service outlets including concessions and cafes. This looks at the operations, food storage and preparation tools, and what types of foods are served on a regular basis and how many of these would be classified as a not recommended product. The food services assessment tool is in the pilot phase and was optional for communities to complete.	Feb-Mar 2009 **6 Food Service Outlets**	Jun-Oct 2009 **3 Food Service Outlets**
Vending Audit Assesses the products in standard snack and beverage vending machines according to the Provincial Guideline "Choose Categories" using the Brand Name Food List.	Feb-Mar 2009 **16 Communities** **57 Machines audited** **1364 Products**	Jul-Oct 2009 **15 Communities** **55 Machines audited** **1391 Products**
Patron Survey Collects data on facility users in regards to vending and concession use**;** attitudes toward healthy food and beverages**;** and awareness of healthy choice messaging/promotion and changes.	February-April 2009 **17 Communities** **N= 740**	Jul-Oct 2009 **17 Communities** **N= 692**
Interview Project staff from each community participated in a semi-structured phone interview. Staff were asked 9 questions regarding the implementation process (challenges, facilitators) and resources used. Duration of interviews lasted about 30-40 minutes.		Oct 2009 **22 project staff from 17 communities interviewed**

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What Went On?

Implementation Activities: Goals Planned & Achieved

Recreation facility staff and community stakeholders formed committees and worked together to assess, plan, set goals and implement change activities. These goals were chosen based on their specific context and targeted aspects of their food environment as defined by the recreation food environment model. A summary of goals and achievements was obtained by analyzing the grant application forms and final reports submitted by communities to UBCM. Areas of intended action outlined in the communities' grant applications were noted, place into general theme categories and then compared and contrasted with the achievements outlined in the final reports.

Some goals outlined in the application stage were changed once the stakeholders came together to plan. Some were not achieved because of pragmatic barriers and some new goals were set and achieved. Of the goals planned by communities, 75% (77/103) were achieved within the 10 month evaluation timeframe and implementation activities were also seen in 19 areas that were not originally established in community grant applications (See Table 2.1 on following page).

The most common implementation activities described were:

> *"We started with very lofty aspirations. We were going to change the world. But in reality we have changed our four concession stands … and we are still in the process of getting through the vending change."*

- o **Changing concessions, cafes and snack bars** included creating new healthy options menus, removing unhealthy options, revising contracts and operations to ensure provision of healthy options, promotion of healthy choices, purchasing equipment to support serving healthy options, removing deep fryers and creating comfortable areas for people to sit and eat.

- o **Increasing public awareness and education** of healthy eating included proving information, signage, handouts and information in regular newsletters and programming. Many communities also offered educational workshop opportunities and special events to raise awareness around healthy choices.

- o **Policy development and strategic planning** which included the creation of committees, consultation and goal setting for future action.

- o **Changing vending** included working with vendors to increase healthy options stocked, revising contracts to reflect policy and guidelines, in some cases removing machines entirely, and working towards product placement and promotion that encourages healthy choices.

- o **Creating partnerships** with local and provincial government bodies, businesses, food distributors and contractors (concessionaires, caterers and vendors) and community groups.

- o **Serving healthy food** at staff meetings, special events, sports tournaments and in programs including children's camps

- o **Supporting environments and opportunities for staff to promote healthy choices**. This included providing education & training opportunities for staff to learn about the initiative and related policy and environmental changes in the facilities, serving healthy food at staff meetings and making it easy for staff to eat healthy at work.

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Impact on Strategic Planning & Facility Environment

Communities made an assessment of their facilities at baseline (February-march 2009) and follow-up (September-October, 2009). This assessment measured organizational capacity for action, current environment and involvement in educational activities. Shifts in ratings demonstrate change. According to ratings, communities made statistically significant changes in their organizational capacity and their policies, education initiatives and food environment. Specifically:

> *"We have spent a lot of time with our Healthy Choices Committee… reviewing a lot of the resources that were provided in the toolkit … as well as some best practices in the industry and looking at models that have been used out there."*

- 17/18 communities reported improvements in the areas of healthy food and beverage planning, facility environments, and communication & education between their baseline and follow-up.
- Statistical analysis revealed a significant difference (p ≤ .01) for the overall assessment score from baseline to follow-up (19%) and for all three assessment categories including: strategic planning (28%), supportive environments (14%), and communication & education (21%).
- The average overall facility assessment score for all Phase II communities was 21/57 at baseline and 32/57 at follow-up, showing an average 11 point increase.

Figure 3.1: Average facility assessment percentage scores for Phase II communities
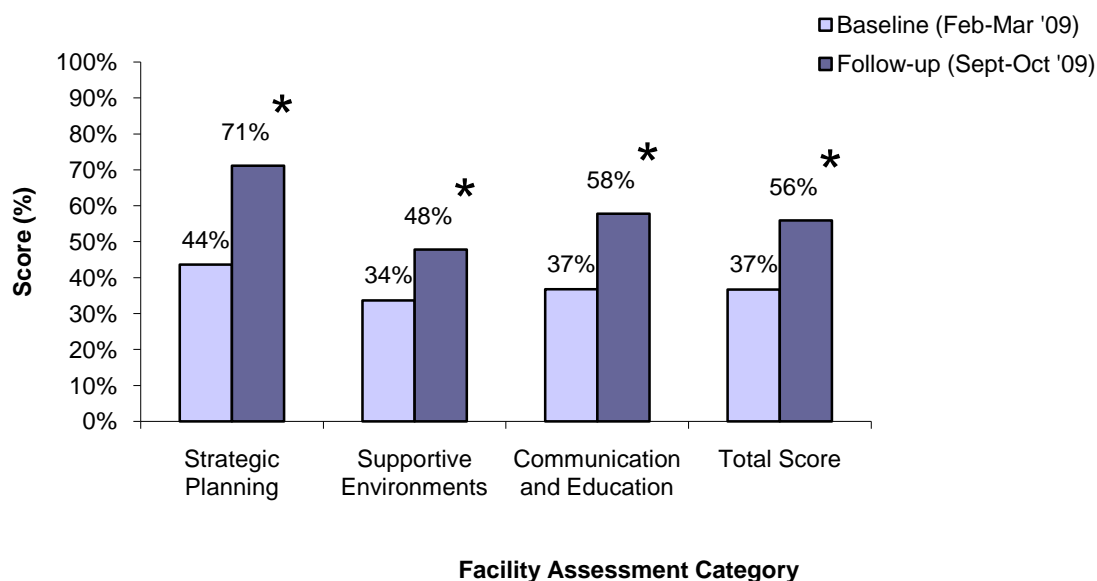
* Statistical significant difference (p ≤ .01) for all three assessment categories and overall assessment score from baseline to follow-up.

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Impact on Policy Development

- Policy development figured prominently in Phase II and community stakeholders indicated that policy development was an important foundation for sustainable change in their facilities.
- 10/17 Communities who had chosen to focus on this area of change during their project completed the *Policy Assessment*. Only one community had a food policy in place at baseline. At follow-up, 6 indicated they had policy in place and 4 indicated that policy development was in progress.
- Policies were diverse and addressed concessions, vending, programs, events, staff practices and meetings.
- Most communities adopted a phased approach to change, implementing policy in steps.
- The most common vending and concession policies was either a "70/30" or "50/50" product mix (meaning food and beverage options provided must be at least 70% Choose Most/Sometimes and 30% Choose Least/Not Recommended or 50% CM/CS and 50% CL/NR). For example, one policy read:

Table 4.1: Food and Beverage Policy Development Status by Community

Community #	BASELINE (Feb-Mar 2009)			FOLLOW-UP (Jul-Oct 2009)		
	No	In Progress	Yes	No	In Progress	Yes
2		✓			✓	
3		✓				✓
4			✓			✓
6	✓					✓
10	✓				✓	
11	✓				✓	
13		✓				✓
15	✓				✓	
16	✓					✓

"At least 70% of items offered for sale must meet the Choose Most and Choose Sometimes criteria, with no more than 40% of items from the Choose Sometimes category; and no more than 20% of items offered for sale can be from the Choose Least and Not Recommended categories..; in accordance with the Nutritional Guidelines for Vending Machines in BC Public Buildings and the Brand Name Food List"

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Significant policy development was undertaken during Phase II. Table 4.2 illustrates all the policy areas where progress was made between baseline and follow-up (each ✓ checkmark represents policy development underway at the time of assessment.). It can be noted by the checkmarks that there was significantly more policy in place or under development at follow-up.

Table 4:2 Policy Assessment Results for Phase II Communities

Policy Statement	BASELINE (Feb-Mar 2009)		FOLLOW-UP (Jul-Oct 2009)	
	In Progress	Yes	In Progress	Yes
Healthy Choices Guidelines				
We have established a healthy choice guideline/policy for our facility	✓✓✓	✓	✓✓✓✓	✓✓✓✓✓✓
Food Provision				
Request for Proposals for food-related services should require bidders to agree to meet the Provincial Healthy Choices Guidelines	✓	✓	✓✓✓	✓✓✓
Healthy foods and beverage (h.f.b.) should be subsidized			✓	✓✓
H.f.b. should be provided at an equal or lower price in vending machines	✓	✓✓	✓✓✓	✓✓✓
H.f.b. sold in the facility must be indicated with a checkmark or other marker	✓	✓	✓✓	✓✓✓
H.f.b. should be positioned to promote visibility	✓✓✓		✓✓✓	✓✓✓
The marketing of unhealthy foods through company sponsorship is not allowed within the facility		✓	✓	✓✓
Programs and Events				
Foods are discouraged as a reward in programs provided by the recreation centre and staff	✓	✓✓	✓✓	✓✓✓✓
Foods provided for child/youth programs on site should meet the healthy guidelines	✓	✓✓	✓✓	✓✓✓✓✓✓
Foods served at special events hosted in the facility should meet the healthy guidelines	✓		✓	✓✓✓✓
Children should be provided a comfortable, calm environment in which to eat meals while participating in programs	✓✓	✓✓	✓	✓✓✓✓✓
Staff				
Food at internal staff meetings must meet our facilities healthy guidelines (as stated on the top of page 2)			✓✓✓	✓✓
Food at official staff social gatherings and training must meet these healthy guidelines			✓✓✓	✓
Staff must be provided with a place to refrigerate and heat food brought from home	✓	✓✓✓✓	✓	✓✓✓✓✓
Staff must be given training on how to appropriately encourage healthy snacks to be brought from home	✓✓		✓✓✓✓	✓✓

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Impact on Concessions

In Phase I dealing with food services and making changes in concession was a prominent project activity. A Food Services Auditing tool was created for Phase II. In Phase II not all communities addressed concession and therefore only those focusing on making changes in their concessions were encouraged to do the audit (it was optional).

Example of the "Classic" Concession Before Healthy Eating Initiatives:

"We sell pop, we sell chips, and we sell hotdogs."

Food Services Assessment Findings

▪ 6 of the 17 Phase II communities completed a Food Services Assessment at baseline.

▪ 100% of menu items that were audited at baseline were categorized as "**not recommended**" according to the guidelines and included chips, chocolate bars, candy, coffee, pop, and fried foods such as burgers, fries and onion rings.

▪ As a result of the HFBS initiative, 34 different positive changes were reported across the three food service audits that completed a follow-up assessment.

Examples of the Community Strategies used to transition concessions to healthier choices included:

1. Developing a policy
2. Including concessionaires in the planning process
3. Hiring a Dietitian to consult and provide advice
4. Creating new menus
5. Finding 'healthy' alternatives to popular 'not recommended items'
6. Selling smaller portions
7. Make the healthy option the default option (e.g. salad instead of fries)
8. Provide a sense of choice
9. Changing equipment to support serving healthy options
10. Place healthy choices more prominently on display
11. Providing public education and promotional supports
12. Limiting concession hours to peak times to reduce operation costs
13. Recognising the importance of taking baby steps

> *"Everything is offered on whole wheat bread, or buns or wraps, and everything comes with a salad. It doesn't mean that they can't choose fries, they just have to ask."*

> *"Our concessionaire is very willing to try creative things. It's not just bottom line for her, although it is a struggle…"*

Key challenges in addressing concessions included potential revenue loss, finding suitable products, communicating with and gaining buy-in from concession staff, changing "what we have always sold" and competition with vending offerings.

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Impact on Vending

- 5 out of 17 communities indicated work towards improving the level at which vending in their facilities met the provincial guidelines in their *Facility Assessment.*
- Improvements in vending were modest overall in Phase II (See Figure 6.1).
- A significant association between the proportion of products in the choose categories and the data collection period (baseline & follow-up) was found; (x^2=28.644, p=.0001).
- There was a small increase in CM (2%) and CS (5%) products as well as a decrease in NR products (-10%) as well as an increase in CL products (4%) which was statistically significant (t=2.527, p=.022).
- In a breakdown between snack and beverage machines that were audited, significant increases (p ≤ 0.05) in healthy snack products were found at follow-up compared to baseline.

Figure 6.1: Baseline to follow-up comparison of all vending products by choose category

Baseline all products (N=1364); Follow-up all products (N=1391)
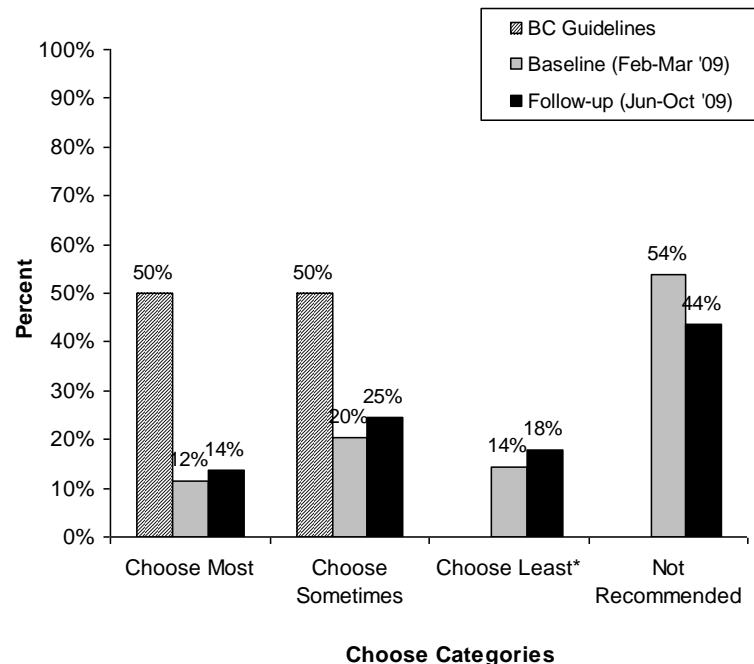
* indicates a 2-tailed significance level of p ≤ 0.05

- Many Phase II communities were limited by existing vending contracts and issues related to stocking healthy options and therefore global improvements in this area were modest. Communities reported that:

1) The change process takes time and relates to contract timelines (that in this case didn't coincide with the initiative).
2) Monitoring the products is important for ensuring healthy options are continually stocked and changes sustained.
3) The audit was very helpful in providing evidence to show to stakeholders that change to healthier products was needed.

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Impact on Patron Perceptions

Overview of the Survey

Communities were given a survey to distribute once at the beginning and then again towards the end of their project. The survey was a three-page survey with 18 questions designed to discover more about patron's values, behaviours and awareness regarding healthy choices in the facility they visit. A total of 1474 surveys were completed in Phase II communities; 782 were completed during a baseline collection in February -April and 692 at follow-up in July-October. On average, there was 4-6 months between the time surveys were completed at baseline and at follow-up in each separate community.

Who Participated in the Survey?

The largest demographic of patrons who responded in Phase II communities were women, were age 36-50 and had a post secondary education. A majority (over 80%) of individuals who completed the survey regularly visit their recreation facility, most frequenting 1 or more times a week (See Figure 7.1) with the most common purposes of visiting the facilities being for children's programs (about 25%), to use the pool (about 25%) and to use the ice arena (20%).

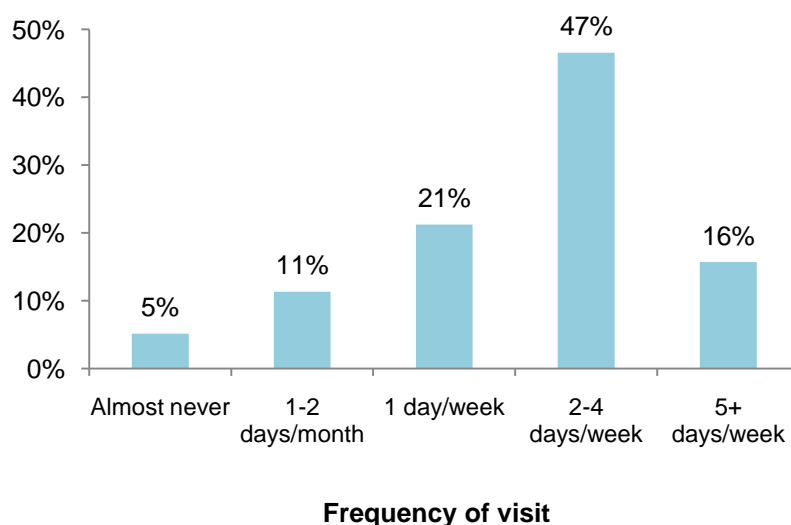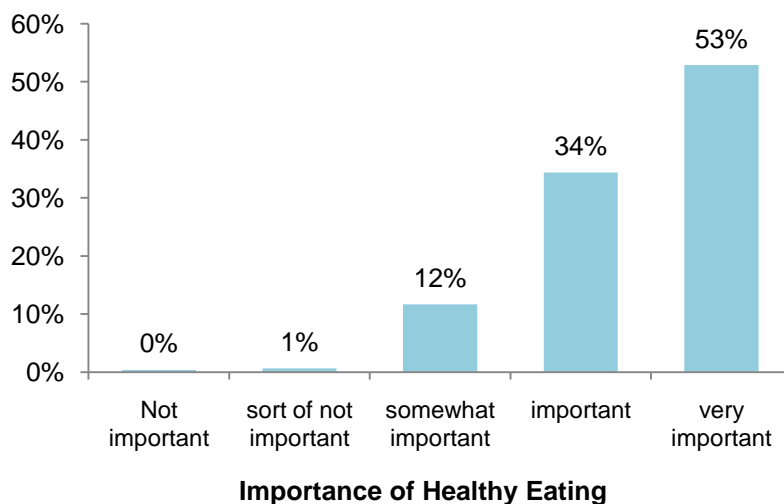### Figure 7.1: Frequency patrons visit the facility

Frequency of visit

Figure 7.2: How important healthy eating is to patrons

Importance of Healthy Eating

Over 80% indicated that healthy eating was either important or very important to them (See Figure 7.2). This indicates that the survey findings reflect the perceptions and behaviours of people who regularly spend time in the facilities being addressed, but that these individuals value healthy eating and an increase in healthy choices.

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What do Patrons' Purchase in the Facilities?

Approximately 25% indicated they regularly purchase something at the concession when they visit and less than 10% from the vending machine. On the day surveyed, almost two of five (39%) of indicated that they had purchased something to eat or drink at the facility. When they do buy, patrons indicated the most common item they purchase is a beverage (73-74% in concession and 63-70% in vending) and a snack (60-62% in concession 40-46% in vending). Only a few indicated purchasing a meal from the concession (10% baseline; 14% follow-up) and almost none from vending (1-3%). Approximately 2/3 purchases made by patrons are for their children (60-66% from concessions and 59%-72% from vending).

There was no major change in the purchasing behaviours of patrons between baseline and follow-up.

What are the Barriers to Healthy Choices?

The greatest barrier at both baseline and follow-up survey measures was lack of selection followed by cost (See Figure 7.3).

There was a significant decrease in lack of selection as a barrier from baseline to follow-up (t=3.50, p=.0001). This would indicate that the intervention resulted in more healthy options for patrons, or at least an increased awareness of healthy options.

Although cost was the second biggest barrier to choosing healthy option (16% follow-up) a majority (86%) indicated they would buy healthy food options at comparable or higher price to other options.

"It's nice to have a variety of things because people are more likely to choose something healthy. Kids also might be more likely to select something healthy if there were mostly healthy choices offered."

Figure 7.3: Patron barriers to healthy choices at baseline

- Lack of Selection — 33%
- Cost — 16%
- Don't like selection — 11%
- Already buy healthy options — 13%
- Options don't seem fresh — 6%
- Unclear which options are healthy — 6%
- No comfortable place to sit and eat — 5%
- Other — 10%

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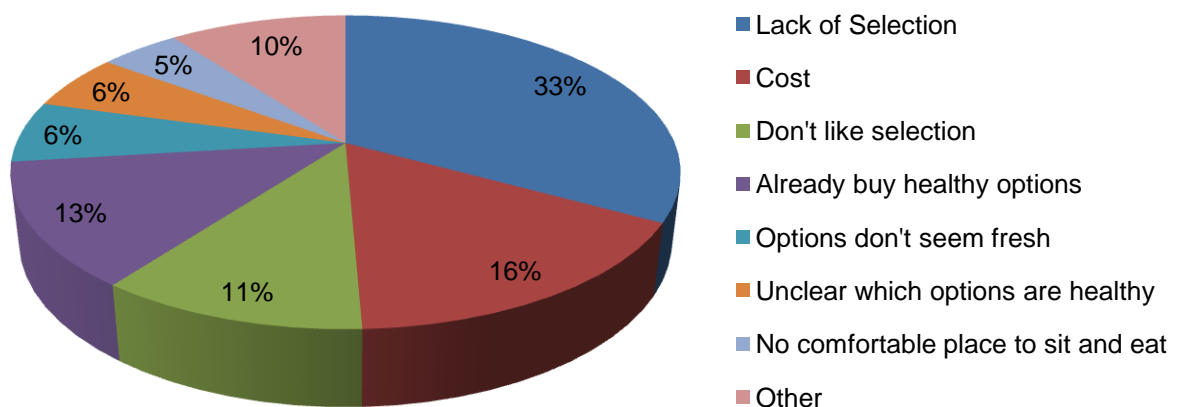
Figure 7.4: Patrons aware of healthy eating promotions at the facility

38% Baseline, 52% Follow-up (Yes)
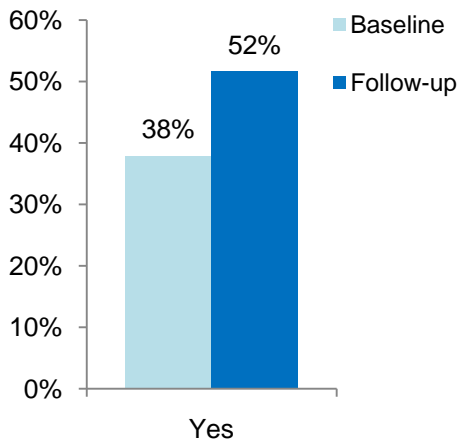
There was a significant increase in patron awareness of healthy eating promotions at baseline compared to follow-up (t=5.138, p=.001) (See Figure 7.4).

However patrons indicated that the promotions had no impact on their purchasing pattern.

"I think the concession is offering a good variety of food. They have great sandwiches, soups, veggie platters. These are options for healthy food"

Summary Analysis of Survey Findings

The survey findings indicate that a majority of patrons of the recreation centres in Phase II communities spend significant time in these settings and believe that healthy eating is important. The findings also highlighted a focus on healthy choices for the benefit of children, likely in part because a great number of the surveys were completed by parents. Children's programs surfaced as the most common reason patron's are visiting their recreation facilities, and a large majority of food and beverages being purchased at concessions and vending are for children.

Overall, a majority of patrons indicated that they do not regularly buy food or beverages while at their facility; however, approximately 40% said they would more often if more healthy choices were offered. When patrons do make a purchase, lack of selection and cost are the primary barriers to making a healthy choice. Increasing healthy choices within concessions and vending was one of the main goals of the Phase II community projects. Although the time period between baseline and follow-up surveying was short, lack of selection had decreased as a barrier for patrons between baseline and follow-up and there was a noticeable increase in awareness of healthy eating promotions.   Additional comments provided on the survey indicated that patrons were excited to see efforts towards offering healthy choices and supportive of the provision and promotion of healthy choices in their facilities.

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How did it go?

The Implementation Story

The data from this evaluation demonstrates that changing the foods and beverages sold and provided in municipal recreation facilities is a complex process. It suggests that changes do not happen in isolation – it takes time and there are ripple effects from one challenge to another. This section presents the barriers to changing to healthier options as well as some of the factors that promote and facilitate these changes as reported by project coordinators during final telephone interviews.   Figure 8.1 represents the key themes derived from community interviews related to challenges and barriers reported.
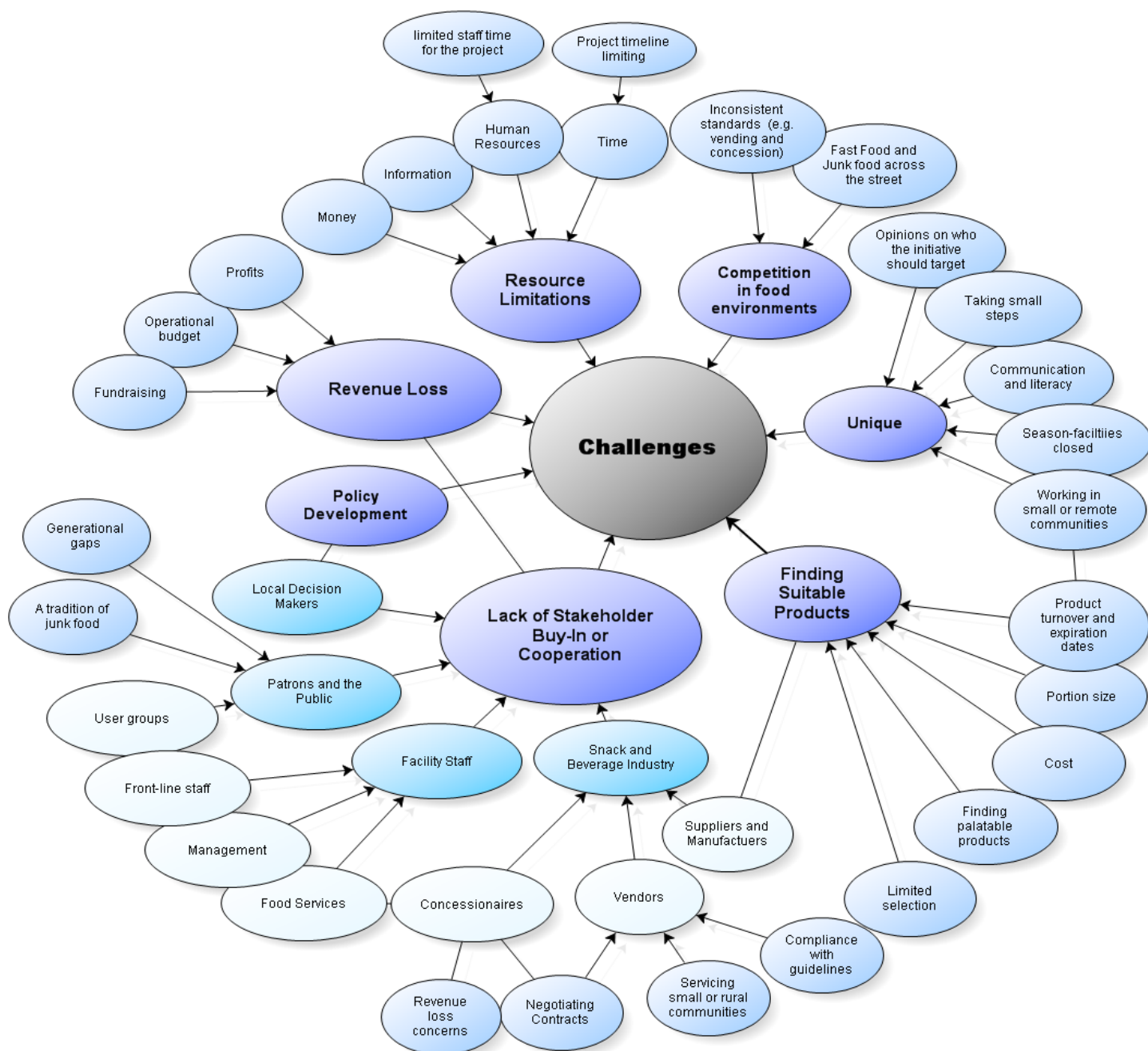
- The main finding of the process evaluation was that *"change takes time and resources"* and is best accomplished with "*buy-in from everyone".*

- Most commonly experienced implementation challenges included:
    - Lack of buy-in from facility staff, patrons, local decision makers, vendors and concessionaires
    - Revenue loss
    - Limited resources including staff time and energy, money, information
    - Finding suitable products
    - Competition in food environments
    - Lack of supportive policy (See Figure 8.1)

- Most commonly cited facilitators to implementation included:
    - Supportive policy and buy-in from local decision makers
    - Buy-in and support from staff, management, patrons, community groups and the snack and beverage industry (including vendors)
    - Resources including time, money, staff time and resources provided through the HFBS initiative
    - Information sharing between communities
    - The evaluation process (See Figure 8.2)

"Change takes time and resources" **and is best accomplished with "***buy-in from everyone"*

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Implementation Challenges

Figure 8.1 below represents the key themes derived from community interviews related to challenges and barriers reported. Each major theme is subdivided into specific subthemes. Connectors between theme bubbles indicate relationships that emerged from the analysis using qualitative analysis software NVivo. Many challenges were strongly interrelated.
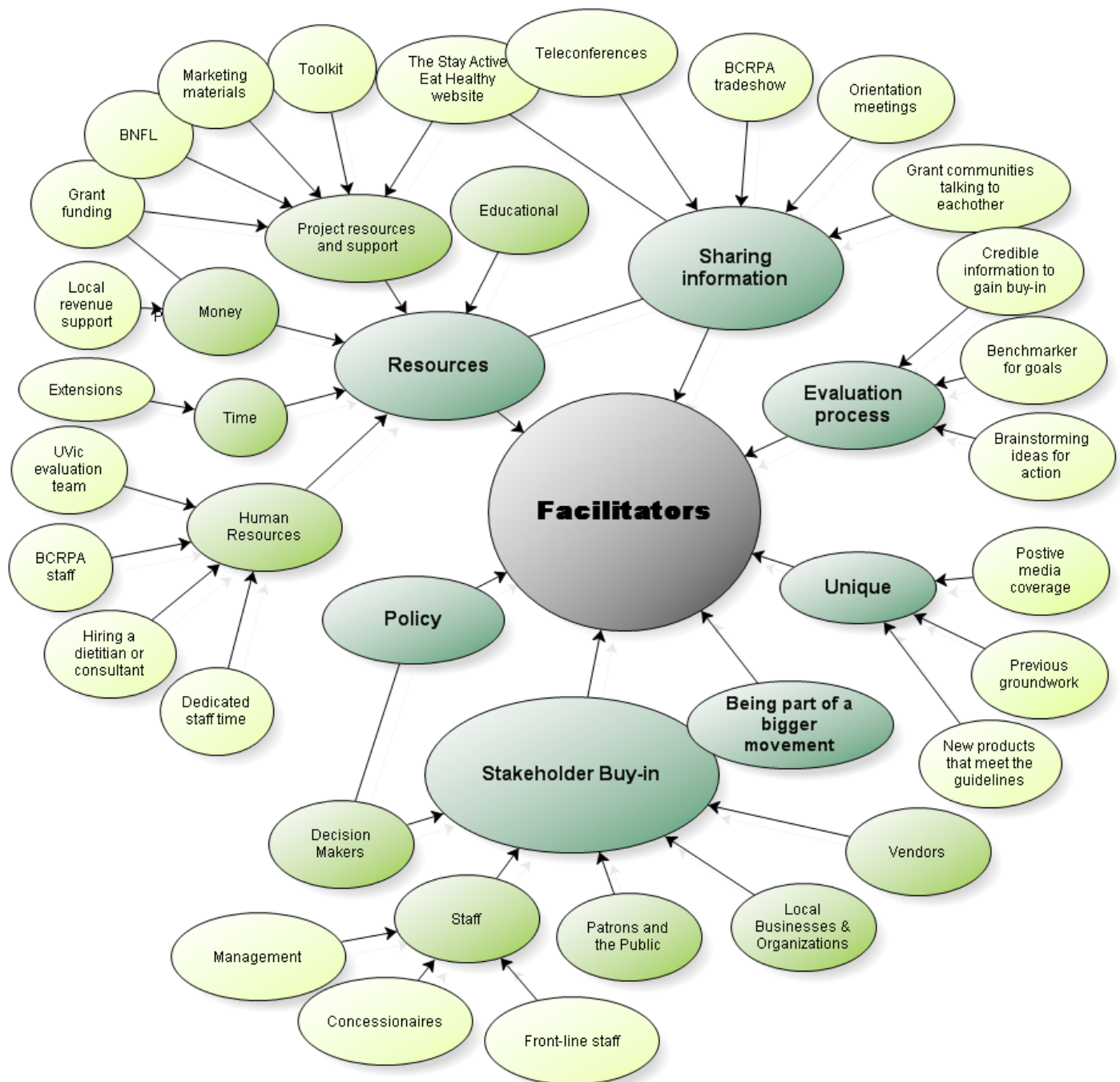
Figure 8.1: Areas of challenge; factors the made it difficult to implementation of healthy foods

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Implementation Supports

Figure 8.2 below represents the key themes derived from community interviews related to supports and facilitators reported. Each major theme is subdivided into specific subthemes. Connectors between theme bubbles indicate relationships that emerged from the analysis using qualitative analysis software NVivo.

Figure 8.2: Areas of support; factors that eased implementation of healthy foods and beverages

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Feedback on Project Resources & Support

Overall the communities were very positive about the resources and technical support that was made available throughout the HFBS initiative. Below is a sampling of quotes summarizing their feedback.

Orientation meetings→ *"I found, going to the first information meeting with [the project coordinator], that was extremely helpful and seeing … examples from what others did … I was all fired up and wanted to change some of the ways we have been doing business."*

Teleconferences→*"I thought the teleconferences were really worthwhile, it was a neat way of getting everyone together and sharing their ideas across the province."*

Toolkit, Marketing Materials and *Stay Active Eat Healthy* Website →*"With regards to the resource toolkit, marketing materials and website … we used a lot of those material to collect and review and get a sense of what some of the best practices are and effective strategies might be."*

Grant Funding→*""We appreciated the grant money. It was instrumental in our success. But we did recognize that it was going to take more than just the grant to make this thing a go."*

Brand Name Food List→ *"The Brand Name Food List is very useful. It is a tremendous resource for us… You can't go and find out this stuff yourself so easily.   It doesn't take a lot of time to fire them into the website and know.   We definitely use it a lot."*

Power Point→*"I showed the Power Point to the user group meeting and I also showed it to the employees that deal with the arena, to get them onboard."*

The BCRPA Symposium Tradeshow → *"The linking with other communities and having it on the agenda in the BCRPA conference, you know the Trade night. [There was] lots to share. That was good. People like that stuff."*

**The Evaluation-> *"The kit that was sent with the vending audit was nice to have as a framework to get through the process."*

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Where to Next?

Plans for Future Action & Sustainability

What are the communities' next steps?

Recreation facility staff were planning to continue after the Phase II to ensure the positive changes made in their recreation food environments continued to be made and sustainable.

Their ideas for the future included:
- Negotiating contracts
- Policy development & implementation
- Revenue commitment
- Dedicated staff time
- Staff training
- Enhancing infrastructure & equipment
- Expanding reach to other facilities
- Public education, information and marketing
- Building and maintaining relationships
- Staging implementation
- Integrating activities into existing organizational processes and initiatives
- Monitoring commitment

What do communities say they need to sustain healthy food and beverage?

Communities were asked what they would need to sustain the achievements of their projects and support ongoing activities. The following summarizes their needs and recommendations for future supports:

1. Dedicated staff to progress the initiative
2. Ongoing provincial support
3. Support from municipal governments and facility managers
4. Continual access and updating of the *Stay Active Eat Healthy* website
5. Continual access to the *BNFL*
6. Information on new products
7. Continually updated marketing and educational materials
8. Network opportunities
9. A monthly e-news bulletin with updates on resources and community successes
10. Provincial training, education and evaluation for food service providers
11. Resources for public education
12. More grant funding opportunities
13. A centralized grant information hub
14. Grant money for equipment
15. Support for ongoing monitoring and evaluation

Key Lessons Learned for Future Initiatives

The overarching lessons learned in this evaluation were that:

1. Changing the foods and beverages available in municipal recreation facilities is a process that takes time (months to years depending on the level of readiness and capacity to change).

2. A phased approach to change is recommended; "taking small steps is best."

3. Investing in educating the decision-makers, the staff and the public that use the facility about the importance of healthy eating and the issue helps with policy implementation and facilitates making the healthy choice the easy choice.

4. While every community can act to change the foods and beverages sold, change starts at different points across and within communities and policies must reflect this diversity of resources and capacity.

5. Evaluation and monitoring is time consuming and requires resources but it supports the change process by providing policy makers and stakeholders with the information they need to advocate for and promote changes.

Analysis Summary

It is well accepted that the current social, cultural and physical environment predisposes both children and adults to sedentary lifestyles and over consumption of energy dense foods of low nutritious value[2][3]. The consequences of these changes include alarming increases in childhood obesity and chronic disease risk [4][5] [6]. There is also growing recognition in the public health sector that solutions to these problems should be more ecological in nature; recognizing the interaction between individuals and multiple environments and levels of influence from friends and family, to community and provincial policy[7][8][9]. Chronic disease prevention efforts have increasingly focused on environmental approaches to increasing health promoting behaviours, decreasing unhealthy behaviours and ensuring that the healthy behaviour is the easy choice[10][11] [12][13][14]. Recent recommendations identify publicly funded community venues, including recreation facilities, as environments to target to increase access to health promoting food options and reduce access to energy dense foods of low nutritious value (junk food)[15].

The Healthy Food and Beverages Sales (HFBS) initiative targeted publicly funded municipal recreation facilities to change food environments and was founded on the extensive engagement of, and consultation with, public health, recreation and industry stakeholders important to altering features of the social (like policy) and physical environment (like food provision). This engagement happened at both the provincial level and the local level. The initiative also incorporated key capacity-building strategies that have been associated with increased implementation of health promotion interventions; training, high levels of communication and support. Importantly, Phase II of the initiative followed implementation of a provincial needs assessment, development and pilot of a toolkit resource and community mobilization plan and a pilot of the capacity-building approach and evaluation methods in 10 mentor communities. What was planned reflected over two years of input from stakeholders on multiple occasions and this may have influence buy-in.

Despite relatively short time frames for action (10 months) the HFBS served as a catalyst for a number of changes in food environments across a variety of municipal recreation facilities. The initiative was based in community and principles of community engagement and therefore implementation of the HFBS initiative varied across sites and targeted different areas of recreation, ranging from changes in vending and food sales to food policy for children's camps and food security (building community gardens). The broad food environment model adopted by HFBS allowed each community to work on change where there was both readiness and capacity to make changes to healthier foods and beverages. Theoretically this flexibility and triability are important qualities of an innovation that influence its adoption[16].

The HFBS initiative facilitated changes in policy, processes, practices and patron awareness. A key area of success was in the area of policy development which was a prominent activity in Phase II. Community stakeholders indicated that policy would be an important foundation for sustainable change in their facilities. According to their grant applications, 12 communities set a goal at the outset of their project that related to policy development and 14 reported that they achieved goals in this area. The breadth of policy activity was substantive ranging from policy guiding product mix, promotion and pricing to guidelines for food provision in programs and events. Surprisingly many changes occurred without policy in place as well.

Food sales in municipal recreation occur primarily in two key food service areas vending and concession. Although a substantive amount of project energy was directed at these areas changes in food services were modest overall. However data showed that some individual communities were highly successful in changing their vending product mix. Challenges to progress in these areas included contract timeframes, challenges in

building partnerships with vendors and concessionaires, limited time and human resources and difficulty sourcing suitable healthy choices products.

Another area of community success was enhancing patron knowledge and awareness of healthy eating and their buy-in to the changes. Many activities to increase patron buy-in (like taste testing new vending or concession offerings) were planned and the evaluation showed a positive shift in patron awareness of healthy eating initiatives as a result.

Enhanced organizational capacity to address the food environment was also a key outcome of the HFBS initiative. One illustration of this was the use of baseline facility data in presentations to municipal decision-makers to enhance buy-in. Efforts were directed at multiple levels and staff and contractors within the municipal recreation facilities were made aware of and trained to change the food environment to include healthier options. Plans for continuing the process of change are in place in many communities but they emphasized the importance of the commitment of resources and technical support. Members of the public who used the recreation facilities that were part of the HFBS were both supportive of change and were more aware of the availability of healthy choices and/or activities that promoted healthy eating at the follow-up evaluation. There was evidence that recreation is an adaptive complex system[17]. Many parts of the system have to be moving to achieve impact. There was evidence of synergistic nature of the activities where in order to create policy and environmental change in patron, staff and decision-maker attitudes was both a facilitator and an outcome. Struggles with changing vending product mix lead to policy. Accountability and education of vendors was critical to policy implementation.

This is a novel area for intervention and one of the contributions of this initiative is the substantial information about 'how' to go about changing the municipal recreation food environment. Buy-in from the staff, decision-makers and members of the public who used the recreation facilities alongside technical and resource supports for changing to healthier food options were critical factors in implementing HFBS initiative. These themes were corroborated within and across activities and data sources. Across all the communities which participated in this evaluation, they all stressed that change takes time, it occurs in stages and it requires dedicated resources.

One of the strengths of the evaluation was that it reflected the 'real world' setting of publicly funded recreation and the input of relevant stakeholders in its design; enhancing its external validity. It also utilized a mixed methods design, relying on multiple sources and types of data and allowing for both an in-depth understanding of the context for implementation and for triangulation of the findings.

The results are limited however, by the lack of comparison communities and the community-based data collection procedures which may have introduced a positive response bias and/or measurement error. In addition, the timeframe for project implementation and evaluation was short and the amount of change that could be made within the grant phase was limited for many facilities. Therefore our findings may best reflect the process of HFBS implementation and the impact of this in 'specific areas', 'unique contexts' and/or 'ready' communities. This 'real world' intervention was not without its challenges; challenges however that are common to other public health oriented social change initiatives and implementation trials (see Dulak and DuPre[18] for a more extensive exploration of implementation issues).

To our knowledge there are relatively few examples of food environment interventions that focus on the publicly funded recreation setting and no published reports of the impact of these initiatives on the policies, processes, practices or patrons. The capacity-building approached adopted by the HFBS appears to be a novel, pragmatic and feasible approach to facilitating change in the food environment.

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