



Kids in Focus Series

Community-based Programs or Interventions that Support Vegetable and Fruit Intake in Children and Youth in Ontario

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This scan has been produced as part of a series to support the Ministry of Health and Long Term Care's Healthy Kids Strategy – Healthy Kids Community Challenge.

Citation: Colburn E, Roblin L, Smith D. Community-based programs or interventions that support vegetable and fruit intake in children and youth in Ontario. Toronto (ON): Nutrition Resource Centre, Ontario Public Health Association; 2016 Nov. 19 p.

Community-based Programs or Interventions that Support Vegetable and Fruit Intake in Children and Youth in Ontario

Overview

The purpose of this resource is to share Ontario-based examples of comprehensive, community programs or interventions to increase vegetable and fruit consumption, among children, youth and families to support the [Healthy Kids Community Challenge \(HKCC\)](#). Highlighted below is a selection of programs and interventions that target healthy eating behaviour change, specifically increasing vegetable and fruit intake. This is not an exhaustive review of all programs or interventions being undertaken in Ontario.

Research shows, that multi-component interventions that use multiple health promotion and behaviour change strategies in a various setting, such as school, community and home, are most effective.¹ This scan includes examples of various interventions conducted in different settings. The table below includes a general description of the program or intervention, a description of some of the health promotion and/or behaviour change strategies employed in its comprehensive approach, and provides information about evaluations completed and/or the evaluation plan (e.g., specific attributes/indicators measured, reported outcomes).

While these programs and interventions are not available in all communities this information can be used to inform the planning of interventions intended to increase vegetable and fruit intake in children and youth. Communities that have one or more of these programs or interventions already running in their community can leverage these as assets.

Program Name and Setting(s)	Program Description	Health Promotion and Behaviour Change Strategies	Evaluations
Community Gardens Schools Community	- Community gardens are collaborative projects created by members of a community in which participants share in the growth, maintenance and harvesting of products of the garden, including vegetables and fruit.	<i>Education and awareness:</i> Provides experiential learning through the growing of vegetables and fruit in garden-based programming.	The FoodShare Toronto report, What makes a successful community garden? , provides a list of community gardens, best practices that were gathered

¹ Stochla J, Smith D, Roblin L. Effective Interventions to Increase Vegetable and Fruit Intake in School-Aged Children. Toronto (ON): Nutrition Resources Centre, Ontario Public Health Association; 2016 Nov. 30 p.



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	<p>- FoodShare operates a number of programs related to community gardens, including:</p> <ul style="list-style-type: none"> • School Grown, a schoolyard farming project that grows vegetables and fruit on school rooftops and lawns to create student employment. • Community Garden Facilitation and Training. <p>- Community gardens are part of the Peer Nutrition Program (PNP) at Toronto Public Health.</p> <p>- Whole Food Kids Foundation currently has a School Garden Grant program that provides a \$2,000 monetary grant to support an edible educational garden on the grounds of a primary or secondary school. Schools, or a non-profit organization or charity working in partnership with a school, may apply.</p> <p>- City of Toronto offers Children’s Gardening programs.</p>	<p><i>Peer support/student involvement:</i> Children/individuals work together alongside one another towards a common goal. Produce grown is determined by the preferences of participants/gardeners.</p> <p><i>Community engagement:</i> Schools, school boards, community agencies and volunteers work together to grow their gardens. Community space is a utilized and shared as a community hub bringing community members together.</p>	<p>through consultations with gardeners, partners, and staff about their experiences with Toronto Community Housing gardens.</p> <p>Extensive research has shown that school gardens (especially when part of a comprehensive school intervention) provide experiential learning and positively influenced vegetable and fruit, knowledge, preference and consumption.</p>
<p>You’re the Chef</p> <p>Schools Community</p>	<p>- You’re the Chef (YTC) is a multi-component program designed to help develop the skills and confidence necessary for youth ages 10 and up (Grades 5-8) to prepare healthy and tasty recipes emphasizing vegetables and fruit.</p> <p>- This program consists of three cooking sessions that take place once a week (for 3-4 weeks) at</p>	<p><i>Education and awareness:</i> Increases awareness and knowledge about healthy eating, Canada’s Food Guide and the importance of vegetables and fruit, as well as food preparation and cooking skills. Provides opportunity to learn experientially in the kitchen to</p>	<p>Evaluated in 2005, 2006, 2007, 2008 and 2014.</p> <p>Each evaluation was conducted to assess the impact of the program, to determine benefits of the program and with earlier</p>



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	<p>school during lunch hour or at community agencies.</p> <ul style="list-style-type: none"> - The program is based on a train-the-trainer model; run by volunteer leaders, including community members, school employees, parents, grandparents or university/college students. - The cost of leader training is free, however, the cost of food and supplies are the responsibility of the school or agency. - YTC is offered by multiple health unit, including: <ul style="list-style-type: none"> • Niagara Region Public Health • York Region - afterschool program and offers a Recipe Booklet • Elgin St-Thomas • Haldimand-Norfolk 	<p>develop food skills.</p> <p><i>Supportive environment:</i> Increases access to healthy foods including vegetables and fruit</p> <p><i>Peer support/student involvement:</i> Cooking with friends and classmates promotes social engagement and was identified as a program benefit of the program</p> <p><i>Parent, family, caregiver partnerships:</i> Parents receive a newsletter describing the program, recipes and handouts designed to promote vegetable and fruit consumption; parents/caregivers are also invited to be trained to lead the program</p> <p><i>Community engagement:</i> Community and parent volunteers can be trained to run the program; school personnel and leaders participate in the program evaluation</p>	<p>evaluations; to provide insight and recommendations for potential changes to the program. Feedback was collected from students, leaders and school personnel (primarily via questionnaires) following implementation of the program during Nutrition Month.</p> <p>Results suggest that the YTC objectives were met, and that the program was a positive experience for all involved.</p> <p>The majority of student respondents consistently reported that they had prepared a YTC recipe at home using vegetables and fruit.</p>



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<p>Adventures in Cooking Leaders Manual</p> <p>Community (after school program)</p>	<p>- Adventures in Cooking (AIC) is a cooking program designed for use with children aged 8 – 12 years (or Grade 4 – 7).</p> <p>- Includes two sets of five comprehensive lessons that are intended for groups of five children per leader.</p> <p>- Each lesson is structured to take about two hours and provides participants with a complete well-balanced meal. Two lessons focus on vegetables and fruit:</p> <ul style="list-style-type: none"> • Lesson 2: Veggies and Fruit • Lesson 7: Colour it up <p>- This program is currently offered by Thunder Bay District Health Unit and North Bay Parry Sound District Health Unit.</p> <p>- The health unit trains community groups to lead the program.</p> <p>- Manual includes an Adventures in Cooking Menu.</p>	<p><i>Education and awareness:</i> Increases knowledge about healthy eating, food labels, and increases food preparation and cooking skills. Provides opportunity to learn experientially in the kitchen to develop food skills.</p> <p><i>Supportive environment:</i> Increases access to healthy food, vegetables and fruit.</p> <p><i>Peer support/student involvement:</i> Follows the “High Five” framework to delivering quality programming to children, which encourages children to take the lead. Kids work together to create each recipe.</p> <p><i>Parent, family, caregiver partnerships:</i> During the pilot, parents participated in a pre- and post-survey. Parents were engaged to encourage their children’s interest in food and cooking.</p> <p><i>Community engagement:</i> Encourages community groups to become leaders and implement the program</p>	<p>Thunder Bay District Health Unit (TBDHU) the AIC pilot, which included administration of a survey before and after completing the program. Following the intervention, parents reported that their kids were cooking and helping with food preparation more and had tried new things in the kitchen, such as trying new foods, and eating more vegetables. Leaders reported that they were satisfied with the program and would recommend it to another organization.</p>



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<p>Beyond 3:30 After-School Program</p> <p>Schools (after school)</p>	<ul style="list-style-type: none"> - A free multi-purpose, after-school program offered through the Toronto Foundation for Student Success; operates in 16 schools in Toronto. - Programming includes physical activity, homework support, arts programming and a Junior Chef's Club. - Participants take turns in groups of three or four to assist the Nutrition Staff in preparing easy, healthy and inexpensive meals for their peers in the program. - Also help participants to plan, shop and prepare meals. 	<p><i>Education and awareness:</i> Increases knowledge and reinforces the value of healthy eating. Experiential learning opportunities offered through food tasting and preparation programming.</p> <p><i>Supportive environment:</i> Increases access to healthy meals.</p> <p><i>Peer support/student involvement:</i> Small group of kids make meals together and share with their peers, family and community members.</p> <p><i>Behaviour change strategies:</i> Participation awards are distributed to participants to reinforce positive behaviour.</p>	<p>Beyond 3:30: A Multipurpose After-school Program for Inner-city Middle Schools, Phase III Evaluation, 2014.</p> <p>Nutrition knowledge increased and students reported that they were eating healthier since joining the program and had requested more vegetables and fruit at home. Parents confirmed this improvement, noting that their children were eating more vegetables since attending the program.</p>
<p>Guys can Cook!</p> <p>Community</p>	<ul style="list-style-type: none"> - Guys can Cook! is a community-based afterschool program for male youth (13-24 years of age). - It is an interdisciplinary collaboration between seven Community Health Centres (CHC), Toronto Public Health, and Toronto Employment and Social Services. - Each partnering CHC hosts 28 hour program (seven weekly, 4-hour sessions) per year. 	<p><i>Education and awareness:</i> Increases knowledge about healthy eating, meal planning, food labeling, food preparation and cooking skills. Provides opportunity to learn experientially in the kitchen to develop food skills. Promotes continued education in food handling.</p>	<p>Guys Can Cook! Project Evaluation efforts focused on identifying program impacts and outcomes, as well as describing learning experiences. It was reported that participants' nutrition knowledge and cooking skills improved, as well as showing</p>



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	<p>- Guys Can Cook! is a series of seven workshops where youth learn cooking skills and receive nutrition information. Chef Instructors teach essential knife skills, cutting and slicing techniques and a variety of cooking methods.</p> <p>- Registered Dietitians cover the important aspects of healthy nutrition, such as planning meals according to Canada’s Food Guide, understanding the nutritional information on food labels, nutrition requirements for different physical activities levels, and choosing healthier snacks.</p> <p>- Youth Workers and/or Health Promoters ensure youth engagement and youth friendly learning environment and assist with overall program facilitation.</p> <p>- Program graduates also qualify for a free Food Handler training with Toronto Public Health.</p>	<p><i>Supportive environment:</i> Increases access to healthier foods/meals.</p> <p><i>Peer support/student involvement:</i> Participants work together with youth workers to foster youth engagement</p> <p><i>Community engagement:</i> A collaboration of local chefs, CHCs, RDs, youth workers, Toronto Employment and Social Services.</p>	<p>an increased awareness of healthy food choices.</p>
<p>Colour it Up! Community</p>	<p>- Colour It Up... Go for More Vegetables and Fruit is a community-based behavioural intervention that targets women to increase nutrition/food knowledge, skills and self-efficacy to plan and prepare healthy meals at home for the family. More specifically, it aims to increase consumption of vegetables and fruit. While the program is not, specifically, a cooking program it taches a number of food skills and has resources</p>	<p><i>Education and awareness:</i> Increases awareness of the benefits/importance of vegetables and fruit. Lessons teach healthy eating and nutrition in relation to food preparation, such as strategies to meet Canada’s Food Guide servings for fruits and vegetables, and builds food skills, such a budgeting and health meal planning.</p>	<p>The program (originally as TAKE Five) was pilot tested in 2005 with 12 selected sites from across Ontario - five community health centres and seven public health units. Key results from the pilot evaluation were that total vegetable and fruit consumption increased as a</p>



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	<p>and skill-based lessons that would complement or augment a cooking program or facility that could host cooking classes.</p> <ul style="list-style-type: none"> - The program was originally <i>Take Five: 5-10 a day...your way!</i> and was developed in consultation with a Registered Dietitian and a Behavioural Psychologist and based on the Social Cognitive Theory. - There are two versions of the program: one targets women ages 19 to 50 and the second is aimed at women over age 50. Women are targeted as primary gatekeepers for family eating and they influence their children’s consumption of vegetables and fruit. - The program consists of six interactive sessions, designed to be implemented once a week for six weeks. Each weekly session lasts about two hours. - A group of nine to 15 women participate in each session that includes, group activities, take-home activities, discussions, hands-on skilling building and taste testing of recipes and snacks. - Colour It Up Program was originally coordinated by the Nutrition Resource Centre and then moved to Cancer Care Ontario and is no longer provincially coordinated (for more information, contact caqui@opha.on.ca). However, it is still in use in various communities across Ontario. 	<p><i>Supportive environment:</i> When integrated into a cooking program, increases access to healthy foods/vegetables and fruit.</p> <p><i>Peer support/student involvement:</i> Participants have group discussions and share experiences, engage in group learning exercises and provide social support to one another.</p> <p><i>Parent, family, caregiver partnerships:</i> Women are given activities to take home. Learning and skills are shared/imparted on their family at home.</p> <p><i>Behaviour change strategies:</i> The discussions and activities in the program are based on a set of best practices that stemmed from a review of nutrition interventions for behavioural change strategies that promote behaviour change rather than simply providing nutrition information (e.g., personal reflection, goal setting and self-monitoring).</p>	<p>direct result of participation in the program, behavior change was maintained three months post-program, greater increases in overall vegetable and fruit consumption were observed in participants with lower than average consumption pre-program, and participants showed increased confidence to maintain behaviour in a variety of situations as a direct result of participation in the program. Lastly, program retention and completion rates averaged 76%.</p>



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	For example: <ul style="list-style-type: none"> • Davenport-Perth Community Health Centre • LAMP Community Health Centre (2012) • Flemmingdon Health Centre • Black Creek Community Centre http://www.bcchc.com/ 		
<p>Peer Nutrition Program</p> <p>Community</p>	<ul style="list-style-type: none"> - The Peer Nutrition Program (PNP) is a free nutrition education program offered by Toronto Public Health (TPH) for parents and caregivers of children six years old and under. It has been running since 2000. - The program includes healthy eating workshops, food skills activities, nutrition screening and nutritional risk assessment, as well as a community garden component. - The program is led by Registered Dietitians and Community Nutrition Educators (paraprofessionals, who have received training from Registered Dietitians) who facilitate the workshops and support program site activities and community gardens. - The nutrition workshops are offered in 18 different languages, are culturally specific and are offered city-wide. - Workshops last for six to ten sessions. Lessons include topics, such as how to improve food 	<p><i>Education and awareness:</i> Workshops include culturally-tailored information about healthy eating, with a focus on vegetables and fruit. Education targets an increase food/nutrition knowledge and building food skills through experiential learning opportunities.</p> <p><i>Supportive environment:</i> Increases access to healthy meals, including vegetables and fruit. Food skills/kitchen-based and garden-based programming provides a supportive environment for experiential learning and skill building.</p> <p><i>Peer support/student involvement:</i> Workshops led by Community Nutrition Educators; food provides a non-threatening, culturally acceptable</p>	<p>TPH was contacted and reported that they have completed a survey on the consumption of vegetables and fruit with program participants; however, the evaluation report is not yet available.</p> <p>In 2015, the PNP was part of a pilot for a Client Satisfaction Survey at TPH. Participants reported that were highly satisfied with the program, with 85% recommending the program to others.</p>



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	<p>selection and healthful purchases and building/ developing basic food skills through hands-on learning. During the workshop, participants learn to prepare baby- and/or child-friendly dishes, where they are also able to sample the dish after making it.</p> <ul style="list-style-type: none"> - PNP also Includes an Indigenous strategy component, which includes nutrition workshops specifically targeted and tailored to Indigenous communities. - Support sites are locations where those who have participated in the workshops can go and get further health and nutrition-related support and information. 	<p>forum for participants to share their experiences and challenges.</p> <p><i>Parent, family, caregiver partnerships:</i> Parents and caregivers apply knowledge/skills in the home setting to influence eating behaviours of the family. Families grow, harvest and share their own cultural-specific vegetables and fruit from the garden.</p> <p><i>Community engagement:</i> Program works in collaboration with many community partners (public health, community health centres, Toronto District School Board, Ontario Early Years Centres, churches, settlement agencies) to promote and deliver their services.</p>	
<p>Good Food Box Community</p>	<ul style="list-style-type: none"> - The Good Food Box (GFB) is a non-profit fresh vegetable and fruit distribution program. There is potential for other communities to adopt this model program to increase access to and intake of vegetables and fruit in families with children. - FoodShare (Toronto) runs one of the largest GFB programs in the province. FoodShare is like a large buying club, with centralized purchasing and co-ordination. Individuals place orders for 	<p><i>Education and awareness:</i> Increases awareness of the availability of local vegetables and fruit; GFBs typically include a newsletter that gives nutrition information about the vegetables and fruit in the box as well as cooking instructions/recipes; food preparation and cooking skills.</p> <p>Educational programming, such as</p>	<p>Reducing Food Security in Kingston: An Evaluation of the Good Food Box, 1997. It was concluded that the program increased access to affordable, fresh produce and survey respondents indicated a change in household-level food insecurity status from</p>

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	<p>boxes with community-based, volunteer, drop-off coordinators in their neighborhood. The GFB costs between \$13 and \$34, depending on the type/size of box selected; vegetables and fruit are provided below market value (estimated at about half the retail price).</p> <ul style="list-style-type: none"> - Vegetables and fruit are purchased from at fair market value from local farmers and vegetable and fruit wholesalers, and in Toronto from the Ontario Food Terminal, - Boxes are packed by volunteers and are delivered once per month. Individuals and families pick up their boxes from a drop box location in their neighborhood (e.g. schools, community centres, faith based organizations, etc.). - Numerous GFB programs operate across Ontario by the same name (KFL&A, Brant County HU, Grey Bruce, Leeds, Glennville & Lanark, Ottawa). - Comparable programs in Ontario also go by different names (e.g., Green Food Box, Halton Fresh Food Box, Huron County Farm to Table Box, Lambton Garden Fresh Box, etc.). - GFB programs have been also been established across Canada and worldwide. - Although the program is not directly targeted to children, it can support families with children by 	<p>“Cooking with the Good Food Box”, can increase food and nutrition literacy among children and families.</p> <p><i>Supportive environment:</i> Increases access and availability to low-cost vegetables and fruit in the community.</p> <p><i>Community engagement:</i> Local growers, school boards, public health units, Community Health Centres, volunteers, community groups (e.g., CAMH, municipalities) work together to help this program to be sustainable. Drop-off sites increase connectivity to the community by providing a hub for community members to access healthy food. Programs are rooted in the community and, as such, address community needs and build on community resources.</p> <p><i>Parent, family, caregiver partnerships:</i> Participants, including parents and caregivers, are able to transfer knowledge and skills gained through GFB-based programming (e.g., Cooking with the Good Food Box) in</p>	<p>"insecure" to "secure".</p> <p>Role of a Food Box Program in Fruit and Vegetable Consumption and Food Security 2012. Reported that participation in a food box program can provide some benefit in terms of increased vegetable and fruit consumption for those who use the program regularly.</p> <p>Each year, FoodShare monitors number GFB delivered, the number of pounds of vegetables and fruit distributed, and the number of Good Food Box drop-offs across Toronto.</p> <p>Thinking Outside the Box - A Review of the Halton Fresh Food Box (HFFB) Program - describes the vast impact that the program has had in the community and illustrates that its value. Overall benefits of the</p>



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	<p>offering a low-cost source for fresh vegetables and fruit, which would be a good resource particularly for communities that work with vulnerable populations (e.g., low income individuals and families).</p> <ul style="list-style-type: none"> - Making the Business Case for Good Food Box Programs – A Planning Guide is guide prepared by Community Voices Consulting Group for the Future of the Good Food Box Project and takes readers through a step by step process to develop their GFB program business plan. - In conjunction with the GFB, Thunder Bay District Health Unit has a Cooking with the Good Food Box - Manual. - The Manual is includes 12 lessons, designed for community agencies or volunteers to offer once per month; with the aim to introduce and build food skills in adults by preparing food and eating together. - Two of the five objectives of this manual focus on vegetables and fruit and one lesson (4) is titled ‘ Singing the Praises of Vegetables and Fruit’. 	<p>the home to influence eating behaviours of the whole family.</p>	<p>HFFB program include, increasing access to affordable and nutritious food, supporting the local economy, increasing consumption and vegetables and fruit, improving community food security, reducing environmental impacts, and community building.</p> <p>The Thunder Bay Cooking with the Good Food Box - Manual contains evaluations administered during the first and last session (pre/post), as well as after each individual workshop.</p>
<p>Great Big Crunch Schools Recreation</p>	<p>- An annual event, started by FoodShare, that invites students, teachers, educators and all food enthusiasts to participate in one great big, coordinated and synchronized “crunch” of an</p>	<p><i>Education and awareness:</i> Education provided regarding apples to promote and celebrate healthy snacking with a You Tube video that describes types of</p>	<p>The Foodshare measures the event in terms of reach but does not specifically measure consumption; however, each</p>



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Centres Workplaces Community	<p>apple.</p> <ul style="list-style-type: none"> - The intervention distributes an apple to each participant and all participants consume the apple simultaneously. - Beyond consuming a fruit, the intervention seeks to increase awareness of healthy eating, promote and celebrate healthy snacking and highlight availability of local grown apples year round. Apples form the basis for a range of potential healthy eating activities that can complement the event (e.g., taste testing, cooking, gardening etc.) - Halton Food for Thought partnered with the Healthy Kids Community Challenge to implement this challenge in October 2016. - Ontario Student Nutrition Program Southwest Region (OSNPSW) participated October 20, 2016 - Hamilton Tastebuds student nutrition collaborative organized an event on March 10, 2016. - Promoted by Sustain Ontario and Food Secure Canada. 	<p>Ontario apples, how they are grown and information related to buying local fruits and vegetables. OSNPSW Activity Guide provides curriculum linked activities by subject (science, math and art).</p> <p><i>Peer support/student involvement:</i> Challenge your friends, family and co-workers to ‘crunch’ and share event pictures.</p> <p><i>Community engagement:</i> A number of groups, such as Ontario apple growers and distributors, school boards, public health units, educators, community organizations, and workplaces, make the event happen in different regions across Ontario and beyond.</p>	<p>participant has eaten at least one apple during the event.</p> <ul style="list-style-type: none"> - FoodShare provides data on the number of participants per year, the number of total participants since the start of the program (2006) and the number of ‘crunch sites’ involved. - OSNPSW provides data on the number of schools that have participated (286) and the number of participants. - The Great Big Crunch was highlighted by OMAFRA in its Local Food Report 2014-15 as an example of current food literacy efforts.
The Super Snackables Recreation Centres	<ul style="list-style-type: none"> - Multi-strategic intervention, including social marketing, education and awareness building, and creating supportive environment. - Recreation centre based-setting and social marketing campaign to promote vegetable and 	<p><i>Education and awareness:</i> Provides education to food vendors and raised awareness of community’s desire for healthier food choices to work towards increasing access to healthier</p>	<p>2015 Systematic review reported that cartoon media character branding can positively increase children’s fruit or vegetable intake</p>



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	<p>fruit intake using cartoon character animations on a variety of promotional materials and clear, simple, actionable messaging about vegetables, fruit and water.</p> <ul style="list-style-type: none"> - Initiated by Kingston, Frontenac and Lennox & Addington (KFL&A) Public Health in four municipalities following a baseline assessment that included a patron survey to assess purchasing behaviours, perceptions and acceptability of healthier alternatives in recreation centres and an audit of food available in vending machines and canteens at recreation centres, using an adapted audit tool from British Columbia's Stay Active, Eat Healthy Toolkit . - In response to the survey, KFL&A Public Health has worked with local recreation centres to raise awareness and provide education to managers and food service providers to increase access and availability of healthier options, such as fruit, vegetables, or yogurt. - During development of campaign, an evidence review was completed and campaign characters were pilot tested with children (target of intervention) and other recreation centre patrons. - KFL&A Public Health launched the Super Snackables campaign, which included the promotion of fruit and vegetables in canteens 	<p>food options.</p> <p><i>Supportive environment:</i> Increases availability and access to healthy foods and decrease access to unhealthy foods. For sustained environment changes, develop healthy policy and revise vending contracts to set limits around the amounts and types of foods that can be sold, based on nutrition criteria/standards that support health.</p> <p><i>Community engagement:</i> Engages community to assess readiness and preferences for healthier foods. Engages target group in the development of intervention components, such as social marketing messaging/characters. Collaborates with food service providers to implement interventions that increase access and availability of healthy foods.</p> <p><i>Social marketing campaign:</i> Promotes vegetables and fruit in recreation centres using simple, clear messaging</p>	<p>compared with no character branding.</p> <p>KFL&A Recreation Centre – Food and Beverage Survey Report</p> <p>The three objectives of the survey were to determine: 1. food and beverage purchasing behaviours of recreation centre patrons, 2. patron perceptions on food and beverages available in recreation centres, and 3. patron acceptability of healthier alternatives that could be sold in recreation centres.</p> <p>Also conducted an audit of food available in vending machines and canteens at recreation centres, prior to implementing the intervention, using an adapted audit tool from British Columbia's Stay Active, Eat Healthy Toolkit. This provides baseline measures to assess changes made to the food</p>



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	<p>through a range of branded social marketing materials and prize vouchers to win vegetables and fruit from the canteen.</p> <p>- Recreation centre vending contract in one (City of Kingston) of the four municipalities has been revised to include threshold limits for proportion of foods sold in vending machine by healthfulness/nutritional composition (e.g., vending machines must contain a minimum of 25% of foods from the “sell most” category, a minimum of 25% from the “sell less” category, and no more than 50% of foods can come from the “not recommended” category) to increase availability of healthier food choices and sustained changes to food environment through contractual obligation.</p>	<p>focused on vegetables, fruit and water. Uses a range of promotional materials and incentives that as part of the campaign reinforce the campaign messaging and augment other intervention strategies (e.g., incentives for participation/prizes, such as free vegetables and fruit from canteen or a campaign branded water bottle). Pilot tested characters and messaging with target population to maximize preference, acceptability and impact of campaign.</p> <p><i>Behaviour change strategies:</i> Uses contingent/positive reinforcement, such as incentives to patrons to select healthy foods or to food service operators to offer healthy foods.</p>	<p>environment as a result.</p>
<p>A Healthier Recreation Concession Pilot Project</p> <p>Recreation Centres</p>	<p>- Multi-strategic intervention, including social marketing, education and awareness building, and creating supportive environment.</p> <p>-The objective of this 2015/2016 pilot project was to introduce, promote and evaluate healthier food and beverage sales at local recreation food service facilities in Oxford County and to improve healthy eating behaviours of county residents.</p>	<p><i>Education and awareness:</i> Stakeholder and community engagement helped to raise awareness with the community prior to the launch of the initiative. Public health launched a webpage for nutrition education developed by a registered dietitian.</p>	<p>Pilot project first conducted pre-intervention survey with local residents to assess attitudes towards potential changes in the food environment in recreation facilities as well as stakeholder engagement/focus groups to</p>



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	<p>-Recreation facilities partnered with Blandford-Blenheim and Zorra Townships and public health to offer healthy options at concession stands.</p> <p>-Some of the healthier options introduced in recreation facilities included fresh smoothies, granola bars, hummus with pretzels and yogurt.</p> <p>- Pilot municipalities also hosted launch events to increase awareness of healthier options among recreation consumers (e.g., free smoothie samples).</p> <p>-Public health launched an education and awareness raising activities that included a website with credible nutrition information provided by a registered dietitian and social marketing materials to support a <i>Food for Thought</i> campaign (e.g., posters).</p> <p>-Registered dietitians worked with operators to discuss menu offerings by nutrient composition/healthfulness, supplying and purchasing processes, food costs and potential for food waste etc. to develop menu changes.</p> <p>-While financial loss and food waste are two commonly identified barriers to adoption of healthier food options among food service facilities in recreation settings, this Ontario-based project found that a healthier recreation food environment is possible and financially feasible.</p> <p>-Components that contributed to intervention</p>	<p><i>Social marketing campaign:</i> A Food for Thought poster campaign was launched to compliment education and awareness rising activities. Communities’ hosted launch events to kick-off the pilot and raise awareness about healthier options on menus in food service facilities. Product placement and promotional strategies were also implemented to raise consumer awareness.</p> <p><i>Supportive environment:</i> Increases availability and access to healthier foods and decreased access to unhealthy foods (e.g., offering fresh fruit smoothies and removing slushies from menu offerings).</p> <p><i>Peer support/student involvement:</i> Consultations were held with youth to learn opinions on how to change the food environment.</p> <p><i>Parent, family, caregiver partnerships:</i> Parents were also consulted for strategies to improve the food environment.</p>	<p>assess readiness and potential barriers to working together to improve the food environment in recreation facilities.</p> <p>Evaluation sought to determine financial feasibility of healthier choices; to identify the most/least popular healthy choices; to track sources of financial loss and strategies to resolve; and make recommendations to improve.</p> <p>Evaluations were conducted in two pilot sites – Zorra and Blandford Blenheim – and reports are available on the Oxford County website: www.oxfordcounty.ca/foodanddsports</p> <p>The evaluation showed that the intervention was both financially feasible, effective in improving the food environment through healthier food options in recreation</p>



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	<p>success included: strategic product purchasing and menu planning to increase availability of healthy food and beverages; decreasing availability of traditional (i.e., unhealthy) food and beverages; ensuring competitive pricing of healthier food and beverages; and effectively using product placement and promotional strategies.</p>	<p><i>Community engagement:</i> In development of the pilot project there was a period of key stakeholder engagement, focus groups and community outreach to assess community attitudes and support for changing the food environment in recreation settings and to present the pilot project proposal to interested stakeholders. Registered dietitians worked with onsite operators to plan changes to menus.</p>	<p>settings and increasing sales of healthier menu items, thus improving healthy eating behaviours of county residents.</p>

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Provincial Programs and Interventions

Highlighted below are two provincially funded programs that focus on increasing vegetable and fruit intake in children and youth. While these programs may not be available in your community, the evaluation of these program show that these types of programs have a positive impact on vegetable and fruit intake in children and youth. If these programs are already offered in a community it may be possible to leverage these as part of a multi-component, comprehensive community intervention to further the reach and impact of the intervention.

Program Name and Setting(s)	Program Description	Health Promotion and Behaviour Change Strategies	Evaluations
Ontario Student Nutrition Program (SNP) Schools	<ul style="list-style-type: none"> - A SNP offers a healthy breakfast, morning meal, snack and/or lunch to students before, during or after each school day. Depending on the school, SNPs offer children and youth healthy food on 3-5 days per week. - The Ministry of Child and Youth Services provides annual funding for the program which is administered by 14 lead agencies across the province who, in turn, work with over 54 community partnerships across the province of Ontario. - Additional funding for the program comes from a variety of sources, including parental contributions, local fundraising, community donations and private businesses. - The Ontario Student Nutrition Program Network reports that there are over 4,400 SNP programs in Ontario. - SNP promotes consumption of vegetables and fruit (One serving of vegetables and fruit must be 	<p><i>Supportive environment:</i> Increases access to vegetables and fruit to create an environment that supports healthy eating.</p> <p><i>Peer support/student involvement:</i> Encourages child and youth participation.</p> <p><i>Community engagement:</i> Lead agencies, school boards, teachers, public health units, communities, parents and/or caregivers engage in the planning, implementation and administration of the program; programs are tailored to individual needs.</p> <p><i>Parent, family, caregiver partnerships:</i> These groups are encouraged to</p>	<p>Feeding our Future Program: The First and Second Year Evaluation, Toronto District School Board. 2006. Sixty-seven % of students involved indicated that one of the benefits of the morning meal was an increased intake of fresh vegetables and fruit (Pg. 26).</p> <p>An Evaluation of Student Nutrition Programs in Halton, Peel, and Waterloo Regions, 2008. Most programs offered were breakfast or snack programs. Results showed that the SNP increased children's mental alertness, classroom participation, and social</p>



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	offered at the main meal and with each snack).	participate in all aspects of the program.	interaction. The evaluation did not assess eating behaviours. Impact of School Snack Program on Dietary Intake of First Nation students, 2012. Researchers found that students participating in a remote First Nation’s community snack program had significantly higher mean intakes from the ‘Vegetables and Fruit’ food group than students who did not participate in the program.
Northern Fruit and Vegetable Program Schools	<p>- The Northern Fruit and Vegetable Program (NFVP) pilot was a 21-week program for elementary-school children in seven Northern Ontario communities, and consisted of two interventions: (I) Free Fruit and Vegetable Snacks and (II) Enhanced Nutrition Education (using ‘Paint Your Plate! Create a Masterpiece: Vegetables and Fruit Action Guide for Schools’ (control was no intervention).</p> <p>- Originally launched in 2006 and funded through the Ontario Ministry of Healthy and Long-Term Care this program brings healthy, nutritious food to elementary and intermediate school students in northern Ontario including the districts of</p>	<p><i>Education and awareness:</i> Educational materials help increase awareness amongst school-aged children and their families about the importance of vegetables and fruit, and encourages healthy eating and physical activity.</p> <p><i>Supportive environment:</i> Increases access to vegetables and fruit to support healthy eating habits.</p> <p><i>Parent, family, caregiver partnerships:</i> Resources, including a newsletter, are shared with parents so they can help</p>	<p>Impact evaluation of the Northern Fruit and Vegetable Pilot Programme. 2009. While the evaluation of the pilot showed that both interventions (I & II) increased consumption of vegetables and fruit among student participants compared to the control group, a significant increase was only observed in intervention (I), where produce was distributed to children.</p>



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	<p>Algoma, Porcupine and Sudbury. In 2014, Sudbury and five communities on the James Bay coast - Attawapiskat, Kashechewan, Fort Albany, Peawanuk, and Moosonee - joined the program.</p> <ul style="list-style-type: none">- The NFVP supplies 2 servings of fresh produce each week to elementary students, with an emphasis on Ontario-grown produce.- The Ontario Fruit and Vegetable Growers' Association coordinates delivery of vegetables and fruit to approximately 36,000 students in 191 schools at least twice a week from January to June.- The goal is to teach children and their families about that impact that vegetables and fruit, healthy eating and physical activity have on their overall health; and to encourage them to eat more of these healthy foods.	<p>with healthy eating and nutrition education in the home.</p>	<p>With parental/guardian consent, students from Grade 5-8 are asked to complete a short, 15-minute survey at school. The survey measures the change in children's attitude and behaviour, and their vegetable and fruit knowledge. This evaluation component takes place in the spring and is done in partnership with the University of Windsor, Algoma Public Health and Sudbury & District Health Unit. Data is not available.</p>
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