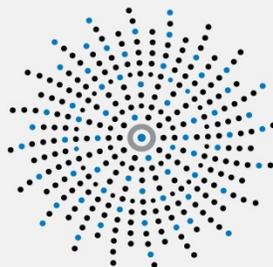CHAMPLAIN SCHOOL FACILITATION

PILOT PROGRAM 2013-14

BASELINE EVALUATION REPORT

JANUARY 2014

PROPEL
CENTRE FOR
POPULATION
HEALTH IMPACT

ACKNOWLEDGEMENTS

The Propel team wishes to acknowledge and thank several people and groups for their contributions to the Champlain School Facilitation Pilot Program baseline evaluation over the last year. Thanks to:

- Champlain Cardiovascular Disease Prevention Network and the Heart and Stroke Foundation with special thanks to Micheline Turnau, Laurie Dojeiji, Natalie Martin, Laura Garton and Mark Holland for collaboration with the Propel team to optimize the design and use of evaluation findings.

- Intervention and comparison school administration and teachers for participating in the evaluation through school surveys or interviews;

- Intervention and comparison school staff who assisted with administration of the online questionnaires to students;

- Intervention and comparison school parents and students who completed consent forms and completed surveys;

Table of Contents

KEY MESSAGES

This report presents baseline findings of evaluation activities in support of the Champlain School Facilitation Pilot Project. The evaluation is intended to inform continuous improvement of the pilot grant program, as broadly conceived, and the program's impact at both school and individual student levels.

School Level Messages

- The Healthy School Communities framework can guide the focus of intervention content, capacities and processes to enhance the potential for impact.

    o Few schools involved a diverse team to plan and implement healthy school initiatives beyond principals and school staff such as students or community members.

    o Most schools have a dedicated leader for driving action, but all schools need a succession plan for leadership to help with sustainability.

    o Most schools have room for improvement when it comes to developing fulsome action plans to address pillars of comprehensive school health.

    o Most schools celebrate success internally but need to be encouraged to share success with the broader community.

    o Schools and their partners need to ensure that healthy eating and physical activity policies are being applied routinely.

    o More supportive social and physical environments for healthy eating and physical activity in the school setting are needed to encourage student behaviour change.

    o Schools can improve their support of students developing life skills by routinely offering "hands on" experiences in healthy eating and active living and by offering the recommended 150 minutes of physical education weekly.

    o More effective partnerships are needed within schools to help sustain momentum in becoming a healthy school

Individual Level Messages

- There is lots of room for improvement of school environments to motivate and encourage children's physical activity.
    o Less than a quarter of students are reporting the recommended 60 minutes of moderate to vigorous physical activity every day.
    o Just over half of those who can, do actively travel to and from school regularly.
    o One third of students spend more than 2 hours in front a screen daily.
- There is lots of room for improvement of school environments to motivate and encourage healthy eating.

- A majority of students report eating and drinking unhealthy food and beverages on the previous day.
  - Less than half of students report drinking at least 3 servings of milk or soy milk per day, as recommended in Canada's Food Guide.
  - About half of students report consuming vegetables and fruit six or more times on the previous day.
  - Over two thirds of students report eating breakfast every day.
- To improve schools' ability to assess impact over the long term (long after the end of this pilot project), self-report assessments of height and weight benefit from home-based objective measures in advance.

Theory of Planned Behaviour

The Theory of Planned Behaviour can guide intervention efforts to change behaviours of students.

Physical Activity

- Students need a **strongly** positive attitude towards playing actively so they are more likely to meet physical activity requirements. The same applies for:
  - student attitudes toward walking / biking to and from school;
  - parental encouragement to play actively or walk / bike to and from school; and
  - having friends who play actively or walk / bike to and from school.
- Students who **believe** they can play actively are more likely do to it. The same applies for walking / biking to school.

Healthy Eating

- Students who **believe** they can eat healthy food when at home with family are more likely to eat healthy food. The same applies for eating at school or social events with friends or at a fast-food restaurant.
- Students who **believe** they can eat healthy food if they want to are more likely to eat healthy food

1. INTRODUCTION

1.1. Purpose and Overview of this Report

This report is written for the Heart and Stroke Foundation and presents the baseline results of evaluation activities in support of the Champlain School Facilitation Pilot Project. The evaluation is intended to inform continuous improvement of the pilot grant program, as broadly conceived, and the program's impact at both school and individual student levels. It is also expected that the results of the evaluation in the first year may inform school-level actions and evaluation priorities in the pilot program. More detailed information on methods and results is available upon request.

2. OVERVIEW OF CHAMPLAIN SCHOOL FACILITATION PILOT PROGRAM 2013-14

2.1. Description of program

The Heart and Stroke Foundation (HSF) in partnership with the Champlain Cardiovascular Disease Prevention Network (CCPN), and the Propel Centre for Population Health Impact at the University of Waterloo, is piloting an initiative called *"Fostering Healthy School Environments: Champlain School Facilitation Pilot Program 2013-14"* to support healthy eating and physical activity among school-aged children. Specifically, funds have been designated from HSF to implement a school facilitation program in which a school facilitator will work with a small cluster of elementary schools (n=16) in developing and executing an action plan related to nutrition and/or physical activity depending on the focus selected by the school in collaboration with the school facilitator. Each school will define, in concert with the facilitator the priority actions and strategies for that school.

Participating intervention schools have a unique opportunity to access dedicated resources aimed at improving the health and well-being of students, and the health of their school environment. Specifically, intervention schools will be provided with seed funding ($1150 for the 2013-14 school year) as well as ongoing support (March 2013 to June 2014) from the school facilitator who will assist schools in developing a 2013-14 School Action Plan in at least one of the following priority areas: school nutrition, school travel planning and/or active play and provide/link schools with tools and resources to support successful implementation of the plan. The three priority areas were chosen to align with the Champlain Healthy Schools 2020 program; the nutrition area built on three 2010-12 nutrition priorities - catered lunch programs, fundraising & classroom rewards. Project partners agreed to expand the intervention focus to address the physical activity portion of the Healthy Schools 2020 mandate; specifically, active play and school travel planning - areas which were aligned with priorities of Champlain health units and other community partners. Baseline findings were shared with schools to provide context regarding how their school and students were doing relative to other schools involved in the initiative. The facilitator utilized this information to support action planning with school stakeholders.

The role of the facilitator in the action plan development is to encourage and offer suggestions to make the activities more comprehensive and address all pillars of the Healthy School Communities Framework while also looking at ways to make their goal(s) sustainable in the

coming years. This will be done through various communication and engagement mechanisms across the school community.

Three schools will serve as a comparison group for the evaluation (with the addition of 3 more comparison schools added in Fall 2013) to provide context for any changes seen in the intervention schools from pre to post intervention. Comparison schools will receive a $200 honorarium for their involvement to support the school in creating a physically active and healthy eating environment at the conclusion of the pilot (June 2014).

2.2.   Framework for implementation

This project has adopted Ontario's Foundation for Healthy Schools (Ontario Ministry of Education, 2006) which is similar to the Healthy School Communities (HSC) Model (Figure 1) which is an internationally recognized, evidence-based framework to promote the health and learning of children and youth (IUHPE, 2009; Kickbush, 1989; Furnée et al, 2011; Suhrcke & de Paz Nieves, 2011). In this comprehensive approach, the inner circles represent five core components or "what" supports a Healthy School Community (Furnée et al., 2011). The outer ring represents the essential principles guiding "how" to support a Healthy School Community. This evidence based framework has led to improvements such as increased learning, increased physical activity, greater consumption of fruits and vegetables, fewer calories consumed and lower likelihood of obesity (Berlot & James, 2011; IUHPE, 2009). The framework must be adopted for application in each new context.

Figure 1: Healthy School Communities Framework
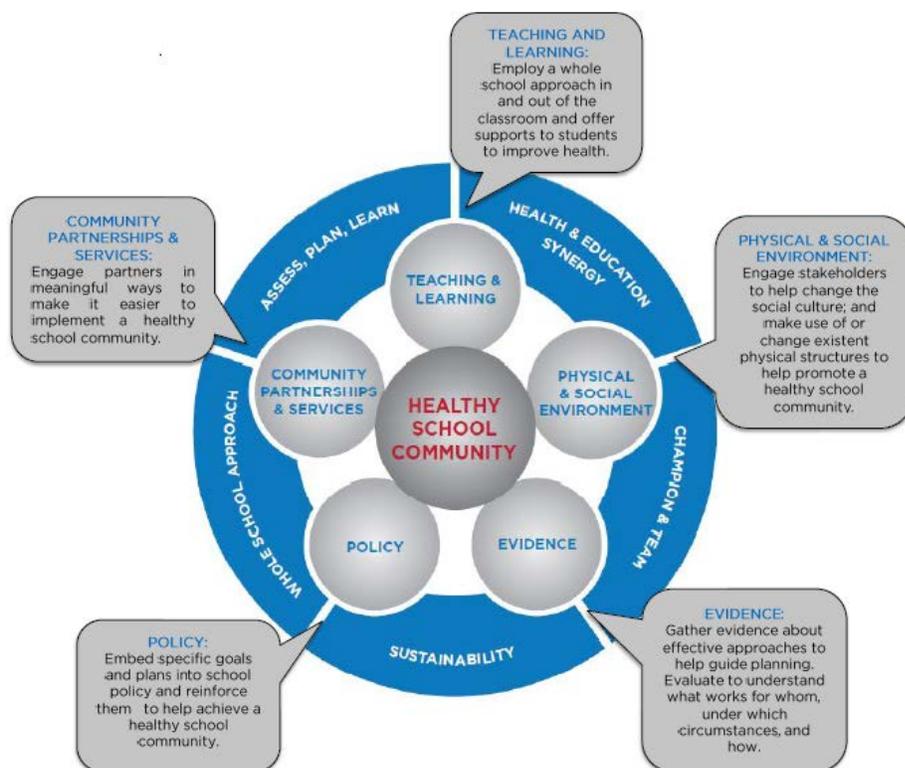
A Propel-led synthesis, with input from policy, practice and research leaders in Canada compiled key elements from two national frameworks (comprehensive school health and health promoting schools) to the five components of a healthy school community contained in Figure 1: teaching and learning, physical and social environment, evidence, policy, community partnerships and services (Bassett-Gunter et al., 2012). Figure 1 contains each of the four elements of *Ontario's Healthy Schools Framework*. It simply draws out Policy and Evidence as separate elements, while considering Social Environment and Physical Environment within the same element.

3. IMPLEMENTATION CONTEXT

Canada has epidemic rates of unhealthy eating, physical inactivity and sedentary living which all contribute to childhood obesity. Unhealthy food environments are a major driver of population weight gain over the last three decades (Swinburn et al., 2011; Swinburn et al., 2009). Dietary factors such as excess sodium, trans fat, saturated fat and sugar consumption have independent and unique impacts on the development of chronic diseases. Only 50% of Canadian children and youth report eating the recommended number of servings of fruit and vegetables per day (which ranges from 5 to 8 servings, depending on age and gender), while 28% are eating French fries 2 or more times per week, and 30% are consuming 1 or more soft drinks per day (Breakfast for Learning, 2007). The Canadian Physical Activity Guidelines for children aged five to eleven recommend a minimum of 60 minutes of moderate to vigorous physical activity daily (MVPA). Based on the Active Healthy Kids Canada Report Card, physical activity levels for children and youth (ages 5 – 17) are extremely low. Just 5% of Canadian children and youth meet this guideline (Active Healthy Kids Canada, 2013). Over one quarter of Canadian children are either overweight or obese and we know that childhood obesity frequently persists into adulthood, leading to increased morbidity and mortality, including cardiovascular disease and other chronic diseases (Shields et al., 2011).

A focus on healthy school communities (HSC) is important for impact. Schools are a well-established setting for population health strategies. Not only do children spend more time in schools than in any other environment away from home (Progress on Preventing Childhood Obesity, 2012), but health and education success are linked: schools achieve their primary mission of education more successfully if students are healthy and fit (Cutler & Lleras-Muney, 2006; Rose & Wu, 1995; IUHPE, 2009). Focusing on HSC is a core part of an internationally recognized and evidence-based framework to promote the health and learning of children and youth (WHO, 2008; WHO, 1996; JCSH, 2008). Demonstrated outcomes using this framework include improvements in learning outcomes (Fung et al., 2012), increased physical activity, lower likelihood of obesity, greater consumption of fruits and vegetables and fewer calories consumed (Veuglers & Fitzgerald, 2005).

Guiding schools with a dedicated facilitator is an effective way to improve school environments and the behaviours of children. Programs in Canada, United States and New Zealand have shown that when schools have dedicated facilitators guiding school wellness efforts, they can improve their environments, and the physical activity and eating behaviours of school-aged children (Squire et al., 2012). A facilitator or coordinator who has training or understanding of the school environment can help guide schools to make school environments healthy and encourage healthy behaviours. Effective facilitators or coordinators supporting healthy school communities often have a background in public health or education. In a targeted

review of these programs, facilitator to school ratios ranged from 1 per school to 1 per school district (Squire et al., 2012). An important role of the facilitator is to link schools to public health and other local organizations to provide support and partnership over the long term after the facilitator is no longer involved.

Support of local governments is needed to engage schools in fostering healthy school environments. Support by local government leaders in health and education is important to achieve a region-wide school commitment and focus on health interventions that foster healthy school environments. In the Champlain region in 2009, the nine Directors of Education and four Medical Officers of Health in the region, in addition to the CCPN Chair signed the Champlain Declaration[1], formalizing a commitment to work together to create physically active, healthy eating environments in schools. The Champlain Declaration was a first of its kind, serving as the foundation from which to foster meaningful working relationships between the health and education sectors in the region. The Champlain Declaration has been brought to life through the Healthy Schools 2020 Program that involves supporting school communities with tools and resources to make important changes to school environments – changes that aim to shift school policies and practices in a way that makes healthy eating and physical activity easy, accessible, and consistent with the classroom lessons we teach our children as part of the health curricula.

The Champlain Declaration has served as an important lever in mobilizing the region to work together to take action on a common vision for schools. Efforts in 2010-12 focused primarily on nutrition environments; specifically: (1) catered lunch programs, (2) fundraising, and (3) classroom rewards. To continue this work, the Healthy Schools 2020 Program expanded from school nutrition to include physical activity – specifically: School Travel Planning and Active Play in the Champlain School Facilitation Pilot Program.

The Champlain School Facilitation Program involved all partners in planning, designing and implementing the intervention and evaluation for greater cohesion across functions. CCPN, HSF and Propel all played an active role in the application process and in selecting schools for the intervention. School board and public health partners also had the opportunity to provide feedback on the application process to ensure that it would enable all schools to be able to apply if they were interested. Once applications were received, the three project partners used selection criteria to select intervention and comparison schools.

Schools selected for the intervention were from five school boards in the Champlain region, with the exception of one private school. This is important contextual information when reviewing the results by school board since the private school may have different policies and supports for healthy school initiatives.

---

[1] http://www.healthyschools2020.ca/en_the_champlain_declaration.php

4. OVERVIEW OF EVALUATION

The evaluation of the Champlain School Facilitation Pilot Program has two purposes. First, its purpose is to guide ongoing refinements and improvements to the program, given that implementation of evidence-based interventions in new, complex settings like schools always requires adaptation to the new setting. Second, the evaluation will determine the impact of the program on students and schools. The results of the evaluation will also be used for knowledge exchange and capacity building and may result in expansion within Champlain Region and scaling up to other school communities across Canada.

The evaluation questions included the following:

- How do school level factors influence the implementation of the intervention?

- What factors engaged parents and community partners to support the intervention?

- What are the eating and activity behaviours of students at intervention schools and how do these change after implementation of intervention?

- How might the existing program design and partnership support scaling up/expansion for future implementation within the Champlain region and across jurisdictions?

Evaluation procedures were developed to answer the evaluation questions. Procedures included:

School-level data collection

Healthy School Planner

Healthy School Planner (HSP) is an online, free tool co-developed by the Pan-Canadian Joint Consortium for School Health and Propel to assess the capacity and performance of schools to support healthy environments. Schools completed HSP between April 8, 2013 and June 28, 2013. School teams were asked to complete three modules of the Healthy School Planner: Foundational; Physical Activity Express; and Healthy Eating Express.

Table 1: Completion Rates for the Healthy School Planner

	Foundational Module	Physical Activity Express Module	Healthy Eating Express Module
Intervention	16 schools (100%)	15 schools (94%)	15 schools (94%)
Comparison	3 school (100%)	2 schools (67%)	2 schools (67%)

Principal interviews

All school principals (or designated school contact) involved as part of the intervention were invited to participate in a 30 minute telephone interview. The interviewer followed an interview guide that included questions related to the application process, the intervention focus selected by the school, and plans to ensure the success of the project at the school. Interviews were completed between April 4, 2013 and July 2, 2013.

Individual-level data collection

Students were asked to complete a survey that included questions about attitudes, and behaviours related to physical activity, healthy eating and positive mental health, and student height and weight. Student data collection was completed between April 16, 2013 and June 25, 2013[2]. Student participation rates for intervention and comparison schools are shown in Table 2. While it would have been desirable to have more children participate in the survey, these rates of completion are similar to other surveys we have conducted using the same method (50%) (i.e., active consent - permissions forms signed by parents and returned to school to enable student participation).

Student responses to the survey questions may have some bias (e.g., underestimate of weight and negative behaviours, overestimate of height) compared to observational (regarding behaviours) or objective measures (measuring height and weight directly); however, a similar study comparing the same self-report questions to objective measures in grade 9 students were found to have reliable estimates of height, weight and dietary intake (Leatherdale and Laxer, 2013). Compared to ninth grade students, our participating grades 5, 7 and 8 students are younger and may provide less reliable self-reports.

Table 2: Completion rates for student baseline survey, by intervention and comparison schools

	Total Student Population in Eligible Grades	Permission Forms (Yes / Total Received)	Completed Questionnaires	% of Total Eligible Population with Data	% of Total Population with Permission with Data
Intervention	1495	828/914	763	56%	93%
Comparison	119	74/79	74	60%	100%

Demographics

Table 3 contains the basic demographic information to characterize the student participants in the intervention and comparison conditions. It should be noted that there were only three comparison schools compared to 16 intervention schools. There were no significant differences between intervention and comparison schools on any characteristics with the exception of grade where a higher proportion of grade 5 students were in comparison schools.

---

[2] Three schools completed data collection during the Fall 2013 as comparison schools. These data will be combined with other comparison schools and used as part of the aggregate baseline data in the Final Report.

Table 3: Demographic characteristics of participants in Champlain District School Facilitation Pilot Program, by Condition

	Intervention Schools (n=763)	Comparison Schools (n=74)
Percent in Grade 5*	58.9%	79.7%
Percent 12 years of age or younger	72.9%	96.0%
Percent males	48.7%	52.7%
Percent achieving "mostly A's" or "mostly A's and B's"	76.9%	83.8%
Percent missing no days due to illness in the past 4 weeks	57.0%	70.3%
Percent going on a vacation with their family at least once in the past year**	68.1%	68.9%

*refers to significant differences p<.05
** indicator of family income

5. MAIN FINDINGS

5.1. School Level Main Messages

The Healthy School Communities framework can guide the focus of intervention content, capacities and processes to enhance the potential for impact.

The intervention and evaluation incorporate Ontario's Foundation for Healthy Schools which is aligned with the Healthy School Communities framework, illustrated in Figure 1. Evidence has shown that schools will be more successful in their efforts to create healthy school communities if they focus actions in five areas: 1) teaching and learning, 2) the physical and social environment, 3) policy, 4) community partnerships & services, and 5) gathering evidence for learning and accountability. At baseline schools were asked about their progress in these areas. The Healthy School Communities framework (Figure 1) also identifies the processes needed to support schools in enabling them to realize the outcomes of their efforts. For example, having a team in place with a dedicated leader encourages action and vision for healthy school communities. The whole school approach identified in Figure 1 points to the key role students can play in planning and implementing activities in addition to school staff and community partners. Figure 1 also notes that schools need an action plan (assessment, planning, action) that addresses each element of a comprehensive approach. Finally, celebration of successful initiatives encourages sustainability of actions. At baseline, we assessed several of these "capacities" in participating schools.

Few schools involved a diverse team to plan and implement healthy school initiatives beyond principals and school staff such as students or community members. Healthy School Planner is intended to be completed by a broad team of committed individuals who will assist a school in taking action on healthy school initiatives. Breadth on a team refers to inclusion of students, school staff (both teaching and non-teaching staff), parents, and community members (e.g., health nurse, local businesses).

At baseline, the majority of intervention and comparison schools included teaching staff members and the principal / vice principal as well as school council on their team when completing the Healthy Schools Planner. Few schools included community organizations, students, or other staff members.

A key finding from the principal interviews was that most schools intended to involve a wide variety of stakeholders such as community partners and staff in development of their implementation plans. It is recognized that the addition of these stakeholders will provide a broader perspective of the school environment and will also result in greater support for healthy school initiatives implemented at the school. At baseline, only 25% (4/16) of intervention schools and 0% of comparison schools (0/3) reported that community members volunteer in their school every day which is an indicator of broader school involvement.

Most schools have a dedicated leader for driving action, but all schools need a succession plan for leadership to help with sustainability. A dedicated leader is essential for driving actions in a school. A dedicated leader is essential for implementing a Healthy School Community framework. Ideally, the leader values a healthy school community approach and is passionate about healthy living. While having the principal / vice principal as the leader is not a requirement, their support is critical for changes in the school to occur. At baseline, 75% of intervention schools (12/16 schools) indicated that they had a leader for healthy school initiatives compared to 100% (3/3) of comparison schools. Having a succession plan (formal or informal) in place for leadership is meant to assist with sustainability of healthy school initiatives over the long term. At baseline, no intervention schools (0/16) reported having a leadership succession plan fully in place, and 33% (1/3) of comparison schools reported having a leadership succession plan fully in place.

Most schools have room for improvement when it comes to developing fulsome action plans to address pillars of comprehensive school health. Baseline findings suggest that most schools have room for improvement when it comes to developing fulsome action plans that address all pillars of the Healthy School Communities framework. See Table 4 for results. To inform these action plans, about half of intervention (8/16) and a third (1/3) of comparison schools gather data from students and teachers, and about a third of intervention (5/16) and two thirds (2/3) of comparison schools gather data from parents or families and formally review policies or practices.

Table 4: Percent of schools with action plans that address Healthy School Community indicators

Indicator	Level of Implementation	Intervention % (n=16)	Comparison % (n=3)
Support students in improving their well-being through teaching and learning (i.e. across the curriculum and inside and outside the curriculum).	Minimally / somewhat	42.9	0
	Fully	57.1	100
Foster a social environment at the school to enhance the well-being of the school community.	Minimally / somewhat	35.7	0
	Fully	64.3	100
Use the physical environment at the school to enhance the well-being of the school community.	Minimally / somewhat	42.9	0
	Fully	57.1	100
Develop or implement healthy school policies.	Minimally / somewhat	57.1	0
	Fully	42.9	100
Involve the broader school community to leverage community partnerships and services.	Minimally / somewhat	71.4	33.3
	Fully	28.6	66.7

Many school principals indicated that they had plans to engage students in both the planning and implementation of action plans. At baseline, only 25% (4/16) of intervention and 33% (1/3) comparison schools involved students with a range of skills and characteristics in a leadership role when organizing school activities.

Most schools celebrate success internally but need to be encouraged to share success with the broader community. Baseline findings documented that schools often celebrate success internally, but are less likely to share those celebrations with others in their community (Table 5). Findings are similar between intervention and comparison groups.

Table 5: Percent of schools reporting celebrating successful healthy school initiatives

Indicator		Frequency of reporting	Intervention % (n=16)	Comparison % (n=3)
How often does your school celebrate successful healthy school initiatives…	…within the school (students and staff)	<1 time /year	25.0	33.3
		1-2 times / year	18.8	0
		>2 times /year	56.3	66.7
	…with the broader community (families, other groups)	<1 time /year	37.5	33.3
		1-2 times / year	31.3	66.7
		>2 times /year	31.3	0

Schools and their partners need to ensure that healthy eating and physical activity policies are being applied routinely.

All schools that completed the Healthy School Planner are aware of nutrition and physical activity policies that apply to their school at various levels. For example, 88% of schools reported awareness of provincial policies, 24% reported awareness of school board policies and 18% reported school level policies; however, not all schools consistently follow the policy/guidelines of which they are aware. For example, schools are aware that Ontario's School Food and Beverage Policy (P/PM 150) covers all food sold at the school; however, in some focused areas, schools do not consistently follow the policy (e.g., tuck shop, vending machine). Some schools may benefit from clarity regarding the policy around cafeteria offerings[3], fundraising, classroom / school celebrations, and rewards for students to enable them to follow the policy consistently.

Local guidelines were reported for classroom celebrations which go above and beyond the provincial policy since the provincial policy does not apply to food and beverages offered in schools to students at no cost. This may be reflective of Healthy Schools 2020 efforts in the Champlain region over the past two years that emphasized nutrition priorities of catered lunches, fundraising and classroom rewards.

More supportive social and physical environments for healthy eating and physical activity in the school setting are needed to encourage student behaviour change.
Free or reduced-price healthy food or beverage programs can support learning outcomes by ensuring that all students are well-nourished and ready to learn. These programs increase students' access to healthy food and beverages, and may introduce new foods to students who do

---

[3] The schools involved in this intervention are elementary schools, and most do not have cafeterias so may not need to understand how the provincial policy affects cafeterias.

not have access to them at home. Table 6 shows the percentage of schools that offer various free/reduced price food or beverage programs with the most common being snack, milk and lunch programs.

Table 6: Percent of schools offering free or reduced price food or beverage programs to students

Type of free or reduced-price food or beverage program offered to students	Percent of schools indicating that the program is offered at their school	
	Intervention % (n=15)	**Comparison % (n=2)**
Snack program	57.1	100
Milk program	50.0	100
Lunch program	46.7	50.0
Vegetable and fruit program	21.4	100
Breakfast program	20.0	100

Schools can create environments that make healthy eating and physical activity easier and more accessible. Table 7 shows that making locally grown food readily available at school, and engaging students in the promotion of healthy eating opportunities are areas that schools may improve the eating environments at their schools. Table 8 shows that recognition of student participation and/or accomplishment in physical activity, developing leadership skills related to physical activity, sport and physical activities are inclusive of all students and embedding physical activities into the daily life and culture of the school are areas that schools may improve the physical activity environments of the school. Interviews with principals emphasized the importance they put on plans for engaging students in planning, and implementing action plans during the upcoming year.

Table 7: Percent of schools implementing various components of a healthy eating environment

Indicator	Condition	Percent of Schools Responding			
		Fully	**Somewhat / minimally**	**Not at all**	**Don't know**
School ensures an allergy-safe environment, where applicable.	Intervention*	86.7	13.3	0	0
	Comparison±	100	0	0	0
Students have a clean and inviting space to eat.	Intervention*	80.0	20.0	0	0
	Comparison±	100	0	0	0
Students have at least 20 minutes to eat lunch once they are seated.	Intervention*	80.0	13.3	6.7	0
	Comparison±	100	0	0	0
School consciously promotes healthy options when students are purchasing food or beverages (e.g. priced less, greater shelf space, labelling).	Intervention*	73.3	20.0	0	6.7
	Comparison±	100	0	0	0
School does not allow advertising of unhealthy food or beverages.	Intervention*	73.3	20.0	6.7	0
	Comparison±	0	50.0	0	50.0
School staff act as role models for healthy eating (e.g. eating healthy meals and snacks in front of students, providing positive feedback to students about food choices).	Intervention*	53.3	46.7	0	0
	Comparison±	100	0	0	0
School makes offering locally grown and available food a priority.	Intervention*	20.0	26.7	13.3	40.0
	Comparison±	50.0	0	0	50.0
Your school actively engages students in the promotion of healthy eating (e.g. events like healthy eating month, contests, grants, clubs,).	Intervention*	6.7	73.3	20.0	0
	Comparison±	50.0	50.0	0	0

* Number of intervention schools = 15
± Number of comparison schools = 2

Table 8: Percent of schools implementing various components of a physical activity environment

Percent of schools responding…		Fully	Somewhat / minimally
Students have access to a variety of facilities to engage in physical activity (e.g. gymnasiums, multipurpose rooms, outdoor paved areas, playing fields).	Intervention*	73.3	26.7
	Comparison±	100	0
Students have access to a variety of equipment to engage in physical activity (e.g. playground equipment, balls, skipping ropes).	Intervention*	73.3	26.7
	Comparison±	100	0
The social and physical environments of the school assist students in developing the skills they need to lead an active lifestyle through their involvement in physical activity.	Intervention*	66.7	33.3
	Comparison±	100	0
School staff set a tone that supports involvement in physical activity (e.g. not using physical activity as punishment).	Intervention*	66.7	33.3
	Comparison±	100	0
Our school's policies and/or practices related to the social and/or physical environment contribute to physical activity opportunities for students.	Intervention*	66.7	33.3
	Comparison±	100	0
Students' participation and/or accomplishment in physical activity are recognized and celebrated.	Intervention*	60.0	40.0
	Comparison±	100	0
Students have the opportunity to develop leadership skills related to physical activity (e.g. through daily physical activity, intramurals).	Intervention*	53.3	46.7
	Comparison±	100	0
Sport and physical activities offered are designed to be inclusive of all students.	Intervention*	53.3	46.7
	Comparison±	100	0
Physical activities are embedded in the daily life/culture of the school (e.g. school assemblies, fund-raising, staff meetings).	Intervention*	46.7	53.3
	Comparison±	100	0

* Number of intervention schools = 15
± Number of comparison schools = 2

Schools can improve their support of students developing life skills by routinely offering "hands on" experiences in healthy eating and active living and by offering the recommended 150 minutes of physical education weekly.

Schools were asked whether various components were included in healthy eating lessons at their school. Many schools (47.1% - 53% intervention, vs. 0% comparison) reported including skills training into lessons related to healthy eating or active living only "somewhat" or "minimally". Almost a third of all schools (29.4%) failed to routinely integrate healthy eating into other curriculum areas (26.7% of intervention schools did so "somewhat" or "minimally"; 6.7% of intervention schools were unsure). Similarly, only 31.7% of schools were able to offer 150 minutes of physical education (excluding daily physical activity) per week throughout the school year (9.1% intervention and 50% comparison). This is the standard set by Physical Health and Education Canada and other organizations as the minimum for students to develop appropriate active living knowledge and skills.

More effective partnerships are needed within schools to help sustain momentum in becoming a healthy school

Results from the HSP indicate that most schools receive supports from partnerships for both physical activity and healthy eating. However, it is unclear whether these are truly effective partnerships as defined in the HSP (i.e., are based on effective communication and strong interpersonal relationships; fit with the school's focus on learning; building on links between health and learning; have common aims, objectives and goals; value the roles of each member; are flexible; and are developed over time).

Key themes from the principal interviews indicated that some principals felt that they were unclear how partners (e.g., agencies, public health) will support their work to create a healthy school environment. Principals also viewed the Champlain Facilitator as someone who will share ideas, resources and connect with other schools or agencies that have tools to help the school.

5.2.   Individual-Level Main Messages

There is lots of room for improvement of school environments to motivate and encourage children's physical activity.

In the following section, overall results for all schools are reported, and differences by group (i.e., intervention/comparison, gender, school board, grade) are only reported if statistically significant.

Less than a quarter of students are reporting the recommended minimum of 60 minutes of moderate to vigorous physical activity every day.

The Canadian Physical Activity Guidelines recommend that children and youth accumulate at least 60 minutes of moderate to vigorous physical activity every day. According to the 2013 Active Healthy Kids Canada report card, only 5% of Canadian 5- to 17-year-olds meet this guideline (Active Healthy Kids Canada, 2013).

At baseline, 17.7% (n=711) of students in the Champlain pilot reported accumulating the recommended 60 minutes per day, every day (based on self-reported physical activity). Thirty percent (30.4%, n=781) of students accumulated the recommended 60 minutes per day at least five days per week.

Significantly more male respondents (24.1%, n=345) than females (11.8%, n=365) reported meeting the guidelines every day. There were also significant differences in percentages of students who reported meeting the guidelines between school boards4, ranging from 11.3% (n=160) to 29.4% (n=51). Since schools were not randomly selected, this may not reflect a real difference. We observed no difference across grade in percentage of students who report meeting physical activity guidelines.

While there is currently no recommendation for the amount of daily "active play" that is sufficient for children and youth, active play contributes to overall physical activity levels. We also know that peers are key influencers of individual activity choices. At baseline, there were significantly more males (88.2%, n=247) than females (79.7%, n=243) reported having 3 or more (out of 5) friends who like to play actively.

Extra-curricular physical activities at school also contribute to overall physical activity levels through means such as activity breaks, intramurals, and school interschool teams. Significant differences were noted in the percent of students who report participating in extracurricular physical activity at least once per week throughout the school year between school boards, ranging from 21.2% (n=170) to 59.7% (n=57). Since schools were not randomly selected, this may not reflect a real difference.
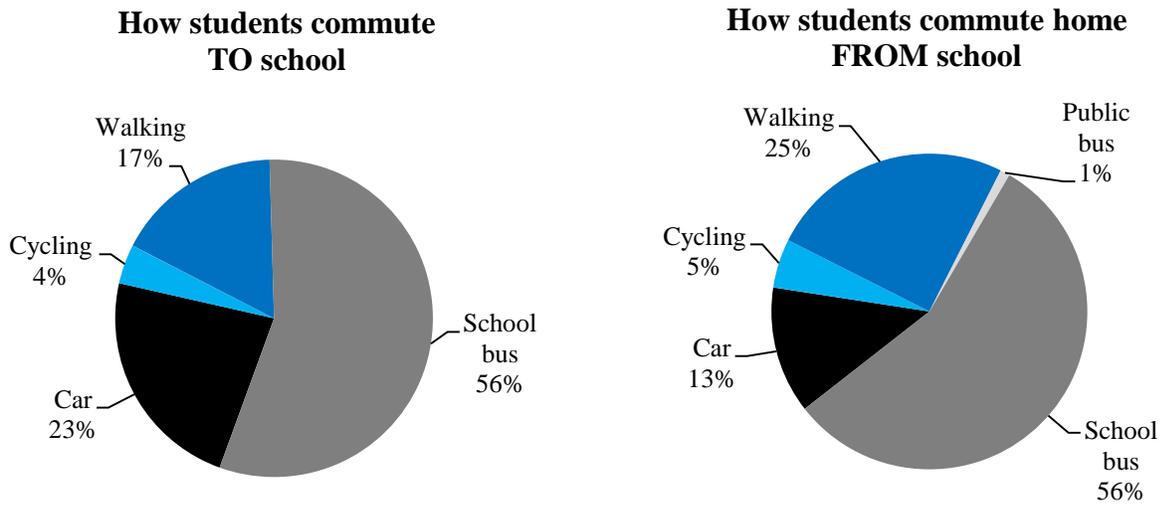
Just over half of students who can, do actively travel to and from school regularly.
The percentage of Canadian children and youth using only inactive modes of transportation to/from school has increased from 51% to 62% between 2000 and 2010. (Canadian Fitness and Lifestyle Research Institute, 2010)

At baseline of all students who could walk or bike to school (excluding those who take a bus), 42.6% of students (n=351) reported being able to walk or cycle to school. Of those who could, 51.5% of students (n=181) reported walking or biking to school and 68.4% of students (n=240) reported walking or biking home from school. Figure 2 reports the modes of transport to and from school.

---

4 School boards refers to the five school boards within the Champlain region that were involved in the initiative, in addition to one private school that is not part of any of the five school boards.

Figure 2: Modes of commuting to and from school

How students commute TO school

Walking 17%
Cycling 4%
Car 23%
School bus 56%

How students commute home FROM school

Walking 25%
Public bus 1%
Cycling 5%
Car 13%
School bus 56%

Significant differences were noted between grades, with younger students more often reporting that they like to walk or cycle to or from school (Table 9).

Table 9: Percent of students reporting that they like to walk or cycle to or from school, by grade

Grade	Percent who report that they like to walk or cycle to or from school *
5	80.3% (n=259)
7	72.8% (n=103)
8	66.7% (n=60)

* Excludes students who selected "I do not walk or bike to school"

One third of students reported spending more than 2 hours in front of a screen daily

The Canadian Sedentary Behaviour Guidelines recommend that children and youth limit screen time to no more than 2 hours per day. According to the Canadian Health Measures Survey in 2009, 69% of Canadian 5- to 11-year olds are meeting the Canadian Sedentary Behaviour Guidelines. This percentage decreases to only 31% of 12-to-17-year olds meeting the guidelines.

At baseline, 66% of students (n=287) responded that they typically spend 2 hours or less per day in front of a screen.

Figure 3: Student reports of hours spent per day in front of a screen
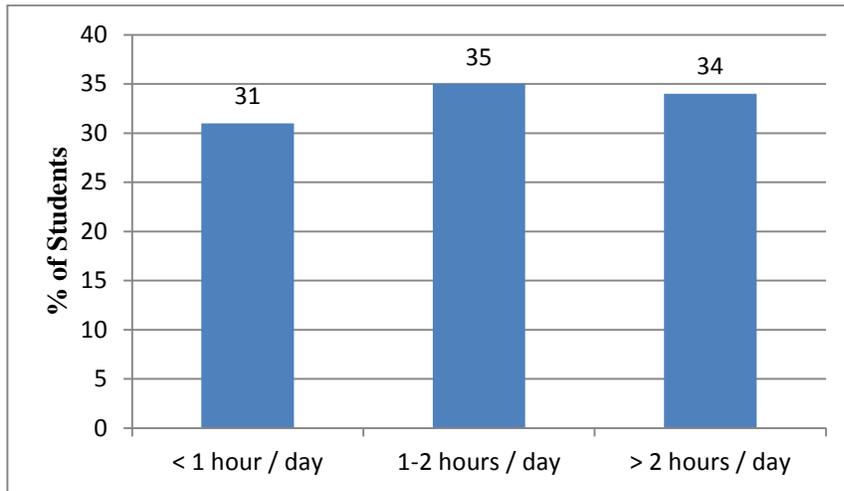
Significant differences in time spent in front of a screen were noted for both gender and grade with males and older students spending more time in front of a screen than females and younger students (Table 10).

Table 10:   Percent of students who report spending more than 2 hours each day in front of a screen

		% of students reporting >2 hours each day in front of a screen
Gender**	Males (n=386)	38.9%
	Females (n=413)	29.8%
Grade***	Grade 5 (n=483)	26.1%
	Grade 7 (n=197)	44.7%
	Grade 8 (n=118)	50.0%

** results significant at p=0.01 | *** results significant at p<0.001

There is lots of room for improvement of school environments to motivate and encourage healthy eating.

A majority of students reported eating and drinking unhealthy food and beverages on the previous day

Canada's Food Guide recommends avoiding snacks high in calories, fat, sugar and salt. In addition, the Ontario School Food and Beverage Policy (PPM 150) does not permit the sale of confectionery products and limits the sale of other high fat, salty or sugar snacks. Despite the recommendations and policy, at baseline 84% of students (n=701) reported eating candy, baked sweets or frozen desserts on the previous day. Of great concern is that half of students report

consuming these calorie-dense and nutritient poor foods and drinks 4 or more times the previous day. Table 11 shows significant differences in consumption of these foods and beverages between gender with males consuming greater high fat, salty or sugar snacks on the previous day.

Table 11: Percent of students who reported consuming high fat, salty or sugar snacks or drinks on the previous day

		% who report consuming high fat, salty or sugar snacks or drinks yesterday…			
		0 times	1-3 times	4-6 times	7 + times
Gender*	Males (n=392)	4.1%	33.4%	28.8%	33.7%
	Females (n-424)	4.3%	48.8%	24.5%	22.4%

*** results significant at p<0.001

Canada's Food Guide recommends avoiding sugary beverages and the Ontario School Food and Beverage Policy (PPM 150) does not permit the sale of sugar-sweetened beverages.

At baseline, 73% of students (n=610) reported drinking at least one sugar-sweetened beverage on the previous day.

Less than one third of students reported drinking at least 3 servings of milk or soy milk the previous day as recommended in Canada's Food Guide

Canada's Food Guide recommends that children (age 9-13) consume at least 3 servings of milk or soy milk per day. Forty-five percent of students (n=357) reported consuming milk one serving or less on the previous day, while 32.3% of students (n=257) met the Canada Food Guide recommendation.

Figure 4:   Number of servings of milk or soy milk students reported consuming on the previous day, by gender
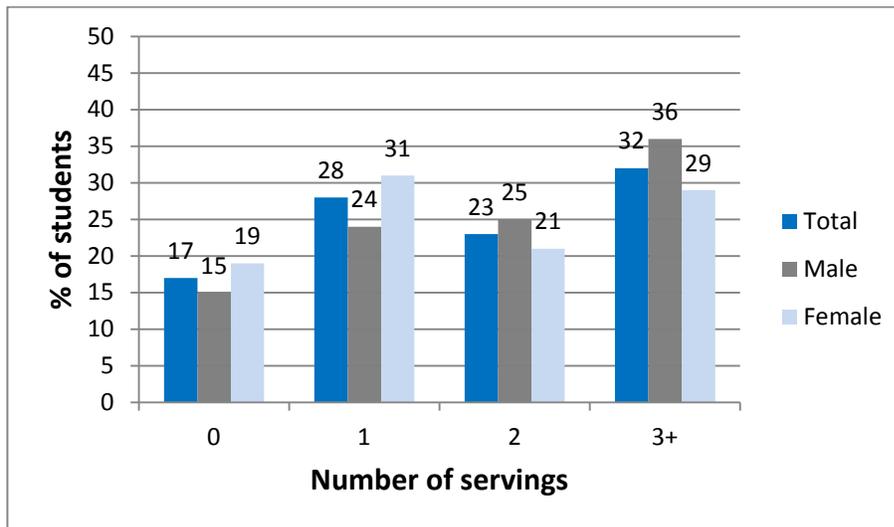
Significant differences in the percent of students who reported consuming milk or soy milk 3 or more times on the previous day were noted for both gender and the school condition (i.e., intervention vs. comparison school). See Table 12.

Table 12: Percent of students who report consuming 3 or more servings of milk or soy milk on the previous day.

Percent who report consuming milk or soy milk yesterday…		3 or more servings
Gender*	Males (n=383)	35.8%
	Females (n=412)	29.1%
Condition*	Intervention (n=722)	33.7%
	Comparison (n=74)	18.9%

* results significant at p=0.05

About half of students report consuming vegetables and fruit six or more times on the previous day as recommended in Canada's Food Guide.

Canada's Food Guide recommends that children (age 9-13) consume at least 6 servings of vegetables and fruit per day.

Fifty percent of students (n=409) reported consuming vegetables and fruit 6 or more times on the previous day. When vegetable and fruit juice is included, 60% of students (n=491) reported consuming vegetables and fruit 6 or more times on the previous day.

Figure 5: Combined number of times youth reported consuming fruit, vegetables and juice on the previous day.
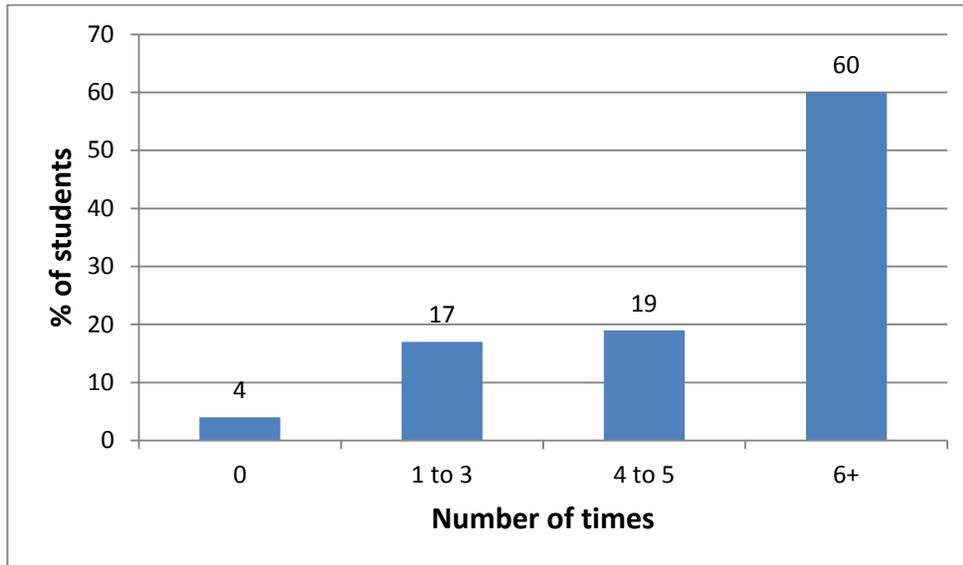
Note: These findings are presented as "number of times" students report consuming vegetables and fruit and not "servings" consumed. This question was developed in consultation with experts in the field and was intentionally worded this way to acknowledge that many students do not have a reliable knowledge of what an appropriate serving size is. The number of times a student consumes vegetables and fruit may not correspond fully with number of servings (McKenna et al., 2012).

Over two thirds of students reported eating breakfast every day.

At baseline, 69% of students (n=813) reported eating breakfast every day in the last 7 days. It is noteworthy that 3% of boys (n=12) and 4% of girls (n=17) reported not eating breakfast at all in the last 7 days. Significant differences between grades were noted as illustrated in Table 13.

Table 13: Percent of students who report eating breakfast every day in the last 7 days

Grade***	Percent who report eating breakfast every day in the last 7 days
5	76.7% (n=493)
7	55.2% (n=203)
8	62.6% (n=115)

*** results significant at p<0.001

To improve schools' ability to assess impact over the long term, self-report assessments of height and weight benefit from home-based objective measures in advance

Height and weight were asked to gauge benchmarks of self-reported BMI of children in intervention and comparison groups. It is not anticipated that the intervention to change school environments will change BMI within one year of implementation, but BMI is recognized as an important marker of both nutrition and physical activity behaviours so it was included on the survey. Self-reported height and weight were assessed using two questions in the student survey. The self-reported height and weight items were consistent to those used and tested in the School Health Action, Planning and Evaluation System (SHAPES) (Wong et al., 2006). In the data collection protocols, teachers were asked to request that students measure their height and weight the day before data collection so that they would be able to answer the questions. When students measured their height and weight in advance, 96% provided height data, and 99% provided weight data. If students did not measure their height and weight in advance, only 61% provided height data and 59% provided weight data. Protocols asking teachers to remind students to measure their height and weight before data collection are important in order to reduce missing and likely inaccurate data.

The BMI categories used in this report are based on the World Health Organization (WHO) Child Growth Standards[5]. Seventy percent of those who completed the questions were in the healthy weight category (n=457), 4% underweight (n=26), 16% overweight (n=106) and 10% obese (n=66). A significantly greater percentage of females reported a healthy BMI (75%, n=252) than males (64%, n=205). There were no significant differences for intervention or comparison schools.
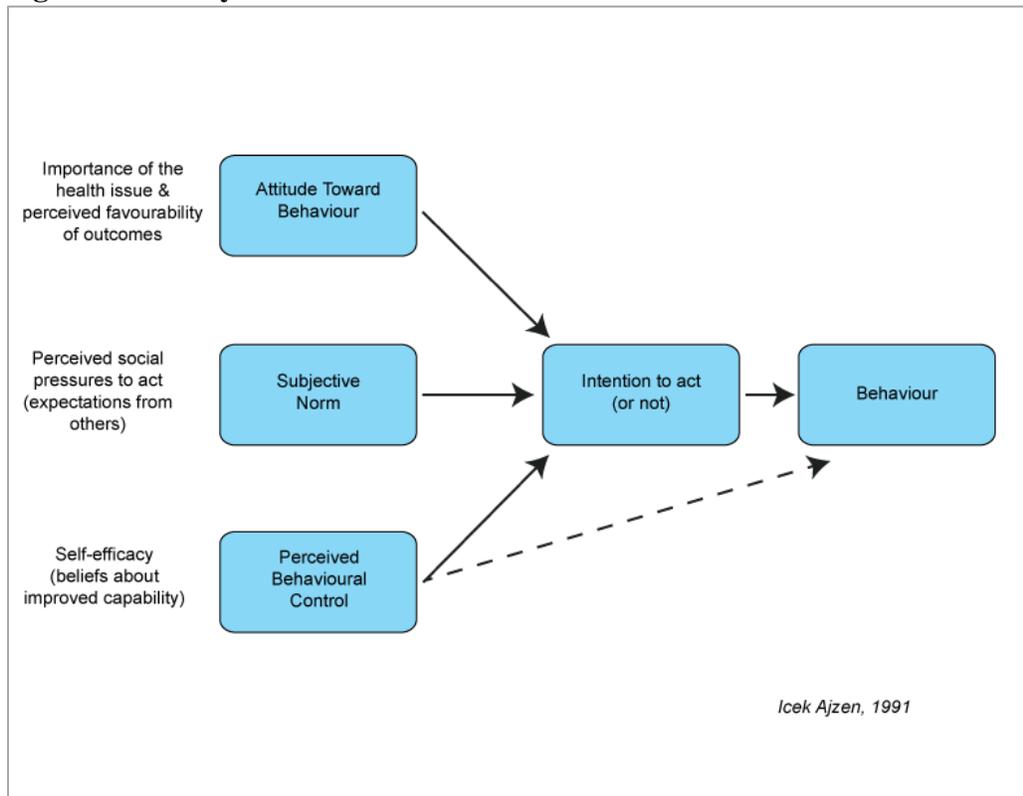
5.3. Theory of Planned Behaviour

The Theory of Planned Behaviour can guide intervention efforts to change behaviour of students.

According to the Theory of Planned behaviour, human behaviour is guided by attitudes towards a particular behaviour to be changed, subjective norms which refers to social pressures and expectations from others related to a behaviour to be changed, and perceptions of behavioural control referring to beliefs about the ability to perform a particular behaviour. Interventions designed to change behaviour may change an individual's intention to act if the behavioural determinants of attitudes, subjective norms and behavioural control are modified as well (Ajzen, 1991). Intentions to act lead to behaviour change. Students were asked questions related to the determinants of behaviour as conceived in the Theory of Planned Behaviour to more fully understand their perspective related to each of the behaviours to be changed and their determinants.

---

[5] These guidelines have been widely adopted throughout Canada. The categories include underweight (less than the 5th percentile), healthy weight (5th to 85th percentile), overweight (85th to less than 95th percentile) and obese (greater than or equal to the 95th percentile).

Figure 2: Theory of Planned Behaviour model

Physical Activity:

Students who have a <u>strongly</u> positive attitude towards playing actively are more likely to meet physical activity guidelines

The theory of planned behaviour asserts that a student's attitude toward a behaviour influences whether or not they take action on the behaviour through intentions. Table 14 illustrates that a strongly positive attitude toward playing actively is associated with an increased likelihood to meet physical activity requirements.

Table 14: Attitude toward playing actively

Attitude toward the behaviour	% of students who report meeting physical activity guidelines every day of the week
Playing actively	
Strongly dislike, somewhat dislike, I neither like nor dislike playing actively, somewhat like (n=202)**	8.3%
Strongly like (n=573)**	18.9%

** differences significant at p=0.005

There are similar patterns observed for attitudes towards walking / biking to and from school and the percentages of students who walk to school. Table 15 presents results for students who were able to walk to school (i.e., students that take a school bus in both directions were not included).

Table 15: Attitude toward walking / biking to school

	Percent walking to schools	Percent walking home from school
I somewhat dislike walking or biking to school OR I strongly dislike walking or biking to school (n=11)	27.3%	72.7%
I neither like nor dislike walking or biking to school (n=39)	33.3%	73.7%
I somewhat like walking or biking to school (n=80)	60.0%	76.9%
I strongly like walking or biking to school (n=148)	73.7%	85.7%

The Theory of Planned Behaviour also emphasizes that perceived social pressures and expectations from others (subjective norms) determine whether or not students take action on the behaviour. Table 16 illustrates that strong parental encouragement toward playing actively is associated with an increased percentage of students meeting the physical activity guidelines.

Table 16: Parental encouragement for active play

Parental encouragement for active play	Percent meeting physical activity requirements
Discourage or strongly discourage (n=27) [#]	11.1%
Do not encourage or discourage (n=73)	9.6%
Encourage (n=245)	11.4%
Strongly encourage (n=439)	19.4%

[#] these two categories were grouped together since one of the categories only had one response
** differences significant at p=0.02

Strong parental encouragement is also associated with more students walking / biking to school as illustrated in Table 17 below.

Table 17: Parental encouragement to walk / bike to and from school

Parental encouragement for walking / biking to and from school	Percent walking to school	Percent walking home from school
Discourage or strongly discourage [#]	37.5% ** (n=8)	62.5% * (n=8)
Do not encourage or discourage	50.0% ** (n=92)	72.2% * (n=90)
Encourage	61.3% ** (n=93)	79.4% * (n=92)
Strongly encourage	78.1% ** (n=82)	90.1% * (n=81)

[#] two categories were grouped together because of low numbers
* differences significant at p < 0.05 |** differences significant at p < 0.01

Similarly, having a greater number of friends who like to play actively is associated with more students meeting the physical activity requirements (Table 18).

Table 18: Relation of number of friends who play actively to self-report on meeting physical activity guideline every day

How many of your best friends play actively?	Percent meeting physical activity requirements
0 (n=15)	0%
1 (n=41)	2.4%
2 (n=66)	10.6%
3 (n=92)	6.5%
4 (n=73)	12.3%
5 or more (n=495)	20.2%

** differences significant at p=0.0003

Having more friends who play actively is also generally associated with more students walking to school See Table 19 for results.

Table 19: Friends who walk to school

How many of your best friends walk or bike to school?	Percent walking to school	Percent walking home from school
0	46.4% (n=56)	56.6% (n=53)
1	45.6% (n=57)	60.0% (n=55)
2	42.2% (n=64)	63.5% (n=63)
3	53.6% (n=69)	76.5% (n=68)
4	67.7% (n=31)	76.7% (n=30)
5	59.4% (n=64)	75.8% (n=66)

Students who <u>believe</u> they can play actively are more likely to do it.

Finally, the Theory of Planned Behaviour suggests that perceived behavioural control determines whether or not students take action on the behaviour through behavioural intentions. Table 20 illustrates that believing in their choice to partake in the activity is associated with an increased likelihood to act on the behaviour (i.e., more likely to be physically active or walk / bike to school). Students believing they can play actively or walk / bike to school if they wanted to is associated with meeting physical activity requirements or walking / biking to school.

Table 20: Perceived control over active play

I could play actively if I wanted to.	Percent meeting physical activity requirements
Really false for me, sort of false for me, sort of true for me (n=199)	7.5%
Really true for me (n=568)	18.3%

** differences significant at p=0.002

Healthy Eating

Students who believe they can eat healthy food when at home with family are more likely to eat healthy food.

As outlined in the Theory of Planned Behaviour (Figure 2), social pressures and expectations from family (subjective norms) influence whether or not students are likely to consume healthy food through behavioural intentions. Table 21 illustrates that when students more strongly believe they will be able to eat healthy when at home with family, there is a higher percentage that:

- Consumed fruit, vegetables or fruit juice 6 or more times in the previous day

- Ate fruit or vegetables 6 or more times in the previous day

- Ate breakfast on all of the previous 7 days

- Had 3 or more milk servings in the previous day

- Had no sweet drinks in the previous day

The vast majority of students reported eating candy or other sweets (84%) and drinking at least one sugar-sweetened beverage (73%) on the previous day. For this reason there was little variation in eating patterns based on ability to eat healthy when at home with family as shown in Table 21.

Table 21: Belief in ability to eat healthy when at home with family by eating behaviours

Strength of belief in ability to eat healthy when at home	Ate fruit or veg. 6 or more times yesterday ***	Ate fruit, veg. or fruit juice 6 or more times yesterday ***	No candy yesterday	No sugar-sweetened drinks yesterday **	No junk food yesterday [1]	3 or more milk servings yesterday *	Ate breakfast on all of the last 7 days**
1 – Not sure (n=34)	3.0%	21.2%	6.1%	18.2%	3.0%	21.9%	63.6%
2 (n=82)	12.5%	45.1%	15.9%	13.2%	1.2%	18.4%	65.4%
3 (n=147)	25.0%	57.5%	16.4%	18.6%	3.4%	35.4%	65.8%
4 (n=161)	22.4%	57.2%	17.3%	30.8%	5.7%	35.3%	60.9%
5 – Very sure (n=371)	34.9%	68.4%	17.3%	33.3%	4.6%	33.5%	75.9%

* differences significant at p < 0.05 |** differences significant at p < 0.01 | *** differences significant at p < 0.0001|[1]Junk food refers to eating salty snacks (chips, cheesies, nachos, butter popcorn), candy/chocolate bar, cake/pie/cookies/doughnut/brownie/baked sweets, ice cream/ice cream bar

Similar findings apply when students more strongly believe they can choose healthy foods when eating at school, and when at social events with friends. The data for these tables are found in Appendix F.

Students who believe they can eat healthy food if they want to are more likely to eat healthy food.

Perceived behavioural control determines whether or not students take action on the healthy eating behaviour through behavioural intentions. Table 22 illustrates that when students believe in their choice to eat healthy food, a higher percentage report that they:

- Consumed fruit, vegetables or fruit juice 6 or more times in the previous day

- Consumed no sweet drinks yesterday

- Ate breakfast on all of the last 7 days

Table 22: I could eat healthy food if I wanted to.

Strength of belief that "I can eat healthy food"	Ate fruit or veg. 6 or more times yesterday	Ate fruit, veg. or fruit juice 6 or more times yesterday ***	No candy yesterday	No sugar-sweetened drinks yesterday *	No junk food yesterday	3 or more milk servings yesterday	Ate breakfast on all of the last 7 days*
Really false for me (n=25)	20.8%	36.0%	21.7%	16.7%	0%	37.5%	66.7%
Sort of false for me (n=43)	23.8%	44.2%	14.0%	14.6%	0%	35.0%	69.8%
Sort of true for me (n=182)	20.8%	50.6%	18.4%	23.5%	5.0%	33.9%	60.6%
Really true for me (n=548)	29.9%	65.6%	15.4%	30.2%	4.2%	30.9%	72.8%

* differences significant at p < 0.05 |** differences significant at p < 0.01 | *** differences significant at p < 0.0001

6. CONSIDERATIONS FOR IMPLEMENTATION AND EVALUATION

Implications of the baseline evaluation findings are organized into next steps for Champlain Pilot Program implementation and evaluation priorities.

Intervention implementation

Theoretical frameworks can be instructive to guide intervention strategy and actions. The way schools make change happen needs to be emphasized and may be just as important as the actions taken for the sustainability and impact of healthy school initiatives. Changing the culture of a school and making healthy choices easier for students will be more likely to happen through systematic change and engagement of an entire school community. Areas for improvement across all schools include:

- having a leader in place along with succession plans for leaders
- celebrating success with the whole school community,
- inclusively engaging students in planning, actions and celebrations which also gives student leadership opportunities,
- nurturing improvements in student skill development related specifically to healthy eating and physical activity,
- engagement of parents to make school change and encourage student behaviour change
- engaging community partners for greater support, links to evidence-informed interventions and likelihood of sustainability.

The role of the facilitator in action plan development is to encourage and offer suggestions to make school activities more comprehensive and address all pillars of the Healthy School Communities Framework while also looking at ways to make school plans sustainable in the coming years.

Baseline evaluation results indicate that there is lots of room for improvement related to physical activity and eating behaviours of students. To foster environmental changes at the school, staff support to adopt healthy behaviours may in turn empower them to act as role models and champions for students. Tailored activities may be important for males and females due to the different findings by gender.

Physical activity

- The quality of activities offered and taught to students related to physical activities are important to ensure that students enjoy them. It is not enough just to "check off" that schools offer DPA, but the quality of activities offered are critical for impact, as well. Ensuring that teachers have the skills they need to instruct students will help ensure high quality DPA is provided to students daily.
- Systematic opportunities that include organized and active play (unstructured) at school will ensure the school environment provides greater access to physical activity through active play.

- Tailored activities may be needed for females to more systematically engage them in activities that they enjoy.
- The determinants of behaviours identified in the Theory of Planned Behaviour can provide insight into behaviours as well. Parents and teachers can support a positive and healthy environment at home and school, and can model by example the behaviours they hope to see in students.

Healthy eating

- Environments that support healthy breakfast consumption may be provided at school for all students. Educating children during these types of programs about healthy foods may also benefit students.
- Ensure that snack and lunch programs support a healthy nutrition environment for children at school as much as is possible. Provision or reduced price opportunities to reduce disparities may also be a consideration.
- Encouraging participation in healthy eating initiatives at school or tailoring messages to boys is important to encourage healthy eating of all students, but also recognizing that boys may need a new message/initiative to change their behaviour.
- Sharing baseline evaluation findings of eating behaviours with families along with suggestions or tips for healthy eating at home may serve as a reminder about the importance of healthy nutrition at home and school.
- Engaging students in nutrition and media literacy may be important to ensure their awareness of nutrition topics and how nutrition is communicated on products and through the media. For example, students may be taught how to read nutrition labels, how industry markets food products to children (e.g., through a grocery store tour, etc.).

Evaluation priorities

The evaluation has been guided by theoretical frameworks at both a system and individual level which has assisted in structuring the content of data collection tools and presentation of results. Focus groups to be conducted in winter 2014 may aid understanding how schools are engaging parents in the intervention to encourage partnerships and healthy eating at home. Greater engagement of students through photovoice and the data gathered as a result of that process will serve to deepen the intervention within individual classrooms and better understand student perceptions of their school environments. Photovoice and student involvement in the evaluation will serve both evaluation needs and may impact the intervention by deepening the commitment of schools and greater engagement of students.

We were initially limited by the schools that agreed to participate as a comparison school (n=3) and recognize the limitations on possible conclusions that may be drawn with such a small number of schools and students. As part of our learnings from the baseline evaluation, we sought to engage more comparison schools during the fall, and have data collected from three more schools to serve as a comparison to the intervention schools.

Although we are unlikely to see differences in BMI as part of the evaluation, we tested a methodology, and found that we get more complete data when students are asked to measure their height and weight at home in advance of the data collection days.

In fall, 2013 and winter and spring 2014 we will continue to collect information on the process of conducting the intervention to better understand the conditions necessary for expanding and scaling up the intervention into more schools and different jurisdictions. We have been gathering information on the resources (e.g., staffing) required to complete the project, barriers and facilitators to success of the implementation of the intervention and acceptability of the intervention in targeted schools. School board partners provide anecdotal feedback through CCPN about feasibility of implementation from their perspective when they have been given the opportunity throughout the project.

7. SUMMARY AND NEXT STEPS

Evaluation findings have been invaluable for informing both school actions and evaluation priorities for the second year of the intervention. The school profiles and rubrics that presented baseline evaluation findings of student and school-level data have resulted in tailored actions of individual schools for the second year of the intervention. The CCPN facilitator has continued to guide schools in taking action using the Healthy School Communities framework. In the second year additional evaluation data will be collected to gather more depth through qualitative methods including interviews with CCPN staff, the CCPN facilitator, focus groups with principals, parents and a photovoice consultation with students. Final quantitative data will be collected from students and the school in the spring of this year. A final evaluation report will document changes and impact of the intervention compared to baseline findings presented in this report.

REFERENCES

Active Healthy Kids Canada. (2013). Are we driving our kids to unhealthy habits. The 2013 Active Healthy Kids Canada report card on physical activity for children and youth. Toronto: Active Healthy Kids Canada.

Bassett-Gunter, R, Yessis, J, & Manske, S, Stockton, L. (2012). *Healthy school communities concept paper*. Waterloo, Ontario: Propel Centre for Population Health Impact, University of Waterloo.

Berlot M, James J. (2011). Healthy school meals and educational outcomes. *Journal of Health Economics*. 30(3):489-504.

Breakfast for Learning. (2007) Report card on nutrition for school children. Accessed: 12 April 2012 http://www.breakfastforlearning.ca/images/pdfs/Services_and_Information/reportcard_nutritionschoolchildren2007.pdf

Canadian Fitness and Lifestyle Research Institute. (2010). 2010 Physical activity monitor. Bulletin 12: Transportation among children and youth. Ottawa: Canadian Fitness and Lifestyle Research Institute. www.cflri.ca/node/961.

Cutler, D,M, Lleras-Muney, A. (2006). Education and health: Evaluating theories and evidence. Cambridge, MA: National Bureau of Economic Research.

Fung, C, Lu, C, Kuhle, S, Purcell, M, Schwartz, M, Storey, K, et al. (2012). From "best practice" to "next practice": The effectiveness of school-based health promotion in improving healthy eating and physical activity and preventing childhood obesity. *International Journal of Behavioral Nutrition and Physical Activity.* 9:27.

Furnée, C, A, Groot, W, Maassen van den Brink, H. (2008). The health effects of education: A meta-analysis. *European Journal of Public Health*. 18(4):417-421.

International Union Health Promotion and Education. (2009). *Achieving health promoting schools: Guidelines for promoting health in schools*. Saint-Denis Cedex, France: International Union Health Promotion and Education.

Joint Consortium for School Health. (2008). What is comprehensive school health. Accessed June 1, 2012. http://www.jcsh-cces.ca/upload/JCSH%20CSH%20Framework%20FINAL%20Nov%2008.pdf.

Kickbush, I. (1989). Approaches to an ecological base for public health. *Health Promotion International*. 4(4):265-268.

McKenna M, Strange K, Naylor PJ on behalf of *Youth Excel*. (2012) *Core Indicators and Measures of*

Healthy Eating for Youth: Indicators and Questions to use with Youth Respondents and/or School Environment Assessments. Waterloo, Ontario: Propel Centre for Population Health Impact, University of Waterloo.

Ontario Ministry of Education. (2006). Healthy schools: foundations for a healthy school. Accessed September 12, 2013. http://www.edu.gov.on.ca/eng/healthyschools/foundations.html

Progress in Preventing Childhood Obesity: Focus on Schools - Brief Summary: Institute of Medicine Regional Symposium. Accessed May 20, 2012 http://www.nap.edu/catalog/11461.html

Ross, C,E, Wu, C. (1995). The links between education and health. *American Sociological Review*. 60(5):719-745.

Shields, M, Connor, G, S, Janssen, I, Tremblay, M,S, (2011). Obesity estimates for children based on parent-reported versus direct measures. *Health Reports*. 22(3):47-58.

Squire, L., Yessis, J, Manske, S, Baskerville, B. (2012). *Facilitated Approaches to Healthy Eating and Active Living in School Settings: Review of Literature*. Waterloo, Ontario: Propel Centre for Population Health Impact, University of Waterloo.

Suhrcke, M, de Paz Nieves, C. (2011). *The impact of health and health behaviours on educational outcomes in high-income countries: A review of the evidence*. Copenhagen: WHO Regional Office for Europe.

Swinburn, B, A, Sacks, G, Hall, K, D, McPherson, K, Finegood, D, T, Moodie, M, L et al. (2011). The global obesity pandemic: shaped by global drivers and local environments. *Lancet*, 378: 804-814.

Swinburn, B, Sacks, G, Ravussin, E. (2009). Increased food energy supply is more than sufficient to explain the US epidemic of obesity. *American Journal of Clinical Nutrition*. 90: 1453.

Veugelers, P, Fitzgerald, A. (2005). Effectiveness of school programs in preventing childhood obesity: A multilevel comparison. *American Journal of Public Health*. 432-435.

Wong S, Leatherdale ST, Manske S. Reliability and validity of a school-based physical activity questionnaire. Med Sci Sports Exer. 2006;10:1593–1600. doi:

World Health Organization. (2008). *School policy framework: Implementation of the WHO global strategy on diet, physical activity and health*. Geneva, Switzerland: World Health Organization.

WHO Regional Office for the Western Pacific. (1996). *Regional guidelines development of health promoting schools: A framework for action*. Manila, Philippines: WHO Regional Office for the Western Pacific; Health Promoting Schools Series 5.

APPENDIX A: DATA COLLECTION METHODOLOGY

Methodology

School Recruitment and Selection

Schools from 5 school boards in the Champlain region were invited to apply to participate in the Fostering Healthy School Environments: Champlain School Facilitation Pilot Program 2013-14. Three exclusion criteria were applied before identifying schools for either the intervention or comparison conditions:

- school did not contain at least one of grades 5, 7 and 8,
- location: the school was 'geographically isolated' and would put too much strain on travel time and costs for facilitator to reach the school
- school size: school population was less than 20 students in grades 5, 7 or 8 classes

CCPN, HSF and Propel selected 19 schools in February, 2013 after applications had been reviewed for eligibility. We designated 16 intervention schools and 3 comparison schools. Schools were selected for the intervention based on their interest in the intervention, school size, school grades (and number of students within the grades we are evaluating), geographic representation and area of focus for the intervention.

Data Collection

The evaluation involves data collection using a mixed methods approach that examines school readiness and intervention expectations, facilitators and barriers to success through interviews and focus groups, and impacts through student and school level surveys (Table 1 below).

Table 1: Data collection for evaluation of the pilot program.

Types of Data Collection

Target	Topics	Time
School principal interviews	School readiness for intervention Intervention expectations	Spring of 2013 & Spring 2014
Student survey (grades 5, 7, 8)	BMI, attitudes, behaviours related to physical activity, healthy eating, positive mental health	Spring 2013 & Spring 2014
School environment survey	Foundations of healthy school community, healthy eating, physical activity	Spring 2013 & Spring 2014

Procedures

Propel arranged for interviews to be conducted with principals in the spring of 2013.

Teachers assisted with the administration of the student-level survey. Each school designated a school contact for the project (e.g., administrative assistant) to coordinate school participation, track permission forms, and distribute questionnaire bundles to classroom teachers.

The school level survey called *Healthy School Planner* (www.healthyschoolplanner.uwaterloo.ca) was completed by a staff member for the project, or a small team from the school.

Data Collection Summary

School Environment Survey: Healthy School Planner

The principal (or school contact) was encouraged to invite other members of the school community to assist with the completion of this survey. We asked school teams to complete three modules of the Healthy School Planner: Foundational; Physical Activity Express; and Healthy Eating Express (see Appendix C for a copy of the questionnaires). The Foundational Module asks questions about the infrastructure and processes in place at the school in order to develop a healthy school community (e.g., Does your school community have a leader for healthy school initiative?). The Foundational Module includes 21 indicators for reporting. The Physical Activity Express and Healthy Eating Express Modules asks questions related to these specific topic areas focused around teaching and learning, the social and physical environments, healthy school policy, and community partnerships. The Physical Activity Module includes 6 indicators and the Healthy Eating module includes 8 indicators.

Both intervention and comparison schools completed the modules between April 8th and June 24th. Once schools completed each module of the Healthy School Planner they receive scores for a variety of indicators. The scores are presented as a rubric, a format familiar to schools since rubrics are used in assessing student achievement. Level 1 in the rubric represents the lowest level, while level 4 is the highest. In general, Healthy School Planner results indicate schools have much room for improvement.

Principal Interview

All school principals (or designated school contact) involved as part of the intervention were invited to participate in a 30 minute telephone interview. The interviewer followed a scripted interview guide which asked questions related to the application process, the area(s) of focus selected by the school for this project, and planning for the success of the school's project. All intervention school principals completed interviews between April 4th and July 2nd.

Student Survey

All students in grades 5, 7 and/or 8[6] (as appropriate for the school population) were invited to participate in an online survey (see Appendix B for a copy of the survey). All participating students did so with parental permission. The survey asked questions related to physical activity (including active play and active transportation), healthy eating, and mental health[7].

Data collection took place between April 16th and June 25th. Both intervention and comparison schools participated.

Table 3 lists student participation rates in the online, baseline survey. Intervention and comparison schools had similar rates of participation. While it would have been desirable to have more children participate in the survey, these rates of completion are similar to other surveys we have conducted using the same method (50%).

Table 3: Baseline survey participation rates

	Participation rate
Intervention Schools	56%
Comparison Schools	67%

Note: Comparison schools had a much lower student population in eligible grades.

---

[6] To accommodate school burden, sixth grade students were not surveyed since they participate in EQAO testing.
[7] Schools in the Upper Canada District School Board did not complete questions that asked about mental health in compliance with a request from the Upper Canada District School Board Planning & Research Department.

Data Analysis
Data analysis included both quantitative and qualitative data analysis.

Quantitative data analysis
School environment data – Data from all schools were aggregated to examine the frequencies of each question. Questions were also grouped by indicator.
Individual level data - Data from all schools were aggregated to examine the frequencies of each question. The frequencies were examined to better understand the range of responses and the questions that had missing information. When questions were not answered by more than 10% of the sample, they were examined more closely to better understand why. Height and weight questions were the only questions with more than 10% of responses missing. Grade 5 classes had higher percentages of missing data. When classes were reminded to measure their height and weight at home, there were fewer missing responses.
Questions were grouped during analysis by indicators and examined. Cross-tabulations were conducted between intervention and comparison group, school board, grade, gender and intervention type.

Qualitative data analysis – Principal interviews were examined for main ideas and themes for each question asked.

Once quantitative and qualitative data were analysed, the findings were integrated according to the Healthy School Communities framework and the Theory of Planned Behaviour.

APPENDIX B: Student Questionnaire

Fostering Healthy School Environments: Champlain School Facilitation Pilot
Program 2013-14

Student Survey

This is a questionnaire about your physical activity, healthy eating and your feelings about activities in and out of school.

Please, use a pencil to complete this questionnaire.

Proper Mark   Improper Mark

- This is NOT a test. All of your answers will be kept confidential. No one, not even your parents or teachers, will ever know what you answered. So, please be honest when you answer the questions.
- Mark only one option per question unless the instructions tell you to do something else.
- Choose the option that is the closest to what you think/feel is true for you.

Hundreds of students across the Champlain region, just like you, have been asked to take part in this survey. This important survey will help the researchers better understand physical activity, healthy eating behaviours and feelings about activities in and out of school among young people in this region. Your help today is very important.

[SERIAL NUMBER]

ABOUT YOU

1. **What grade are you in?**
   ☐ Grade 5
   ☐ Grade 6
   ☐ Grade 7
   ☐ Grade 8

2. **How old are you today?**
   ☐ 10 years or younger
   ☐ 11 years
   ☐ 12 years
   ☐ 13 years
   ☐ 14 years

3. **Are you…**
   ☐ a girl?
   ☐ a boy?

4. **Which of the following best describes your marks during the past year?**
   ☐ Mostly A's / above 85% / level 4
   ☐ Mostly A's and B's / 70 – 84% / level 3-4
   ☐ Mostly B's and C's / 60 – 69% / level 3
   ☐ Mostly C's / 50-59% / level 2
   ☐ Mostly letter grades below C's / below 50% / level 1

5. **In the last 4 weeks, how many days of school did you miss because of your health?**
   ☐ 0 days
   ☐ 1 or 2 days
   ☐ 3 to 5 days
   ☐ 6 to 10 days
   ☐ 11 or more days

6. **During the past year, how many times did you go away on a vacation with your family?**
   ☐ Not at all
   ☐ Once
   ☐ Twice or more

PHYSICAL ACTIVITY

7. **How tall are you without your shoes on?** (Please write your height in feet and inches OR in centimetres, and then fill in the appropriate numbers for your height.)

□ I do not know how tall I am

"My height is ___ feet ___ inches"
OR
"My height is ___ centimetres"

Height			Height		
Feet	Inches		Centimetres		
0	0	0	0	0	0
1	1	1	1	1	1
2		2	2	2	2
3		3		3	3
4		4		4	4
5		5		5	5
6		6		6	6
7		7		7	7
		8		8	8
		9		9	9

8. **How much do you weigh without your shoes on?** (Please write your weight in pounds OR in kilograms, and then fill in the appropriate numbers for your weight.)

□ I do not know how much I weigh
"My weight is ___ pounds"
OR
"My weight is ___ kilograms"

Weight			Weight		
Pounds			Kilograms		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2		2	2
3	3	3		3	3
	4	4		4	4
	5	5		5	5
	6	6		6	6
	7	7		7	7
	8	8		8	8
	9	9		9	9

9. **Did you measure your height and weight at home yesterday?**

□ Yes

□ No, but I already knew my height and weight

□ No

10. Mark how many minutes of physical activity you did on each of the past 7 days that <u>made you breathe hard or be "out of breathe" or sweat.</u> Include physical activity during physical education class, lunch, after school, evenings, and other spare time. Include physical activities like jogging, team sports, fast dancing, jump-rope, walking, leisure biking, and recreational swimming and any other physical activities that made you sweat, breathe hard or be "out of breath."

	None	1 to 14 minutes	15 to 29 minutes	30 to 59 minutes	1 to 2 hours	More than 2 hours
Monday	☐	☐	☐	☐	☐	☐
Tuesday	☐	☐	☐	☐	☐	☐
Wednesday	☐	☐	☐	☐	☐	☐
Thursday	☐	☐	☐	☐	☐	☐
Friday	☐	☐	☐	☐	☐	☐
Saturday	☐	☐	☐	☐	☐	☐
Sunday	☐	☐	☐	☐	☐	☐

11. For each of the past 7 days, mark how many hours (outside of school) you spent sitting or lying down <u>looking at a screen.</u> Think about the time you spent watching TV and movies, playing video and computer games, chatting, text messaging, or surfing internet sites like Facebook, Twitter or YouTube, for example.

For example: If on Monday you watched 1 hour of TV, played video games for 30 minutes, and went on Facebook for 30 minutes, you would mark 2 hours and 0 minutes as shown below:

	Hours									Minutes			
	0	1	2	3	4	5	6	7		0	15	30	45
Monday	☐	☐	■	☐	☐	☐	☐	☐		■	☐	☐	☐

	Hours									Minutes			
	0	1	2	3	4	5	6	7		0	15	30	45
Monday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
Tuesday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
Wednesday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
Thursday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
Friday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
Saturday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
Sunday	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐

12. In the last 7 days, how much time did you usually spend <u>per day</u> doing homework?
☐ None
☐ 1-15 minutes
☐ 16-30 minutes
☐ 31-60 minutes
☐ 1 or more hours

13. During each season in the past 12 months, how often did you participate in before-school, lunch-time, or after-school physical activities that were organized by your school? (For example, dance clubs, intramurals, or school team sports)

	Never	Less than once per week	1 to 3 times per week	4 or more times per week
Fall	☐	☐	☐	☐
Winter	☐	☐	☐	☐
Spring	☐	☐	☐	☐

14. During each season in the past 12 months, how often did you participate in sport or physical activity outside of school for at least 15 minutes <u>with</u> a coach or instructor present? (For example, sports teams, dance lessons, swim clubs, YMCA leagues, tennis or golf lessons).

	Never	Less than once per week	1 to 3 times per week	4 or more times per week
Fall	☐	☐	☐	☐
Winter	☐	☐	☐	☐
Spring	☐	☐	☐	☐

15. During each season in the past 12 months, how often did you participate in sport or physical activity for at least 15 minutes <u>without</u> a coach or instructor present? (For example, biking, skateboarding, skipping, rollerblading, ice or road hockey, hiking, skiing, snowboarding).

	Never	Less than once per week	1 to 3 times per week	4 or more times per week
Fall	☐	☐	☐	☐
Winter	☐	☐	☐	☐
Spring	☐	☐	☐	☐

16. How much do you like or dislike walking or biking to school?

☐ I strongly dislike

☐ I somewhat dislike

☐ I neither like nor dislike

☐ I somewhat like

☐ I strongly like

☐ I do not walk or bike to school

17. During the past 7 days, how did you usually get to and from school?

To school	From school
☐ Car	☐ Car
☐ School bus	☐ School bus
☐ Public bus, subway or street car	☐ Public bus, subway or street car
☐ Walking	☐ Walking
☐ Cycling	☐ Cycling
☐ Other	☐ Other

18. **Do you usually walk part of the way (at least one entire block) to and from school?**
   ☐ Yes
   ☐ No

19. **Your best friends are the friends you like to spend the most time with. How many of your best friends walk or bike to school?**
   ☐ 0
   ☐ 1
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5 or more

20. **How much do your parents, step-parents, or guardians encourage you to walk or bike to school?**
   ☐ Strongly encourage
   ☐ Encourage
   ☐ Do not encourage or discourage
   ☐ Discourage
   ☐ Strongly discourage
   ☐ I do not walk or bike to school

The next 3 questions are about playing actively. Playing actively means being physically active in your free time. Think of activities that make you sweat, breathe hard or "be out of breath" like biking, skateboarding, skipping, rollerblading, ice or road hockey, hiking, skiing, snowshoeing or others of your choice.

21. **How much do you like or dislike playing actively?**
   ☐ I strongly dislike playing actively
   ☐ I somewhat dislike playing actively
   ☐ I neither like nor dislike playing actively
   ☐ I somewhat like playing actively
   ☐ I strongly like playing actively

22. **Your best friends are the friends you like to spend the most time with. How many of your best friends play actively?**
   ☐ 0
   ☐ 1
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5 or more

23. How much do your parents, step-parents, or guardians encourage you to play actively?

☐ Strongly encourage

☐ Encourage

☐ Do not encourage or discourage

☐ Discourage

☐ Strongly discourage

HEALTHY EATING

24. YESTERDAY, from the time you woke up until the time you went to bed, how many times did you eat the following foods?

	Number of times						
	None	1	2	3	4	5	6+
a) Salty snacks (for example, chips, cheesies, nachos, butter popcorn)	☐	☐	☐	☐	☐	☐	☐
b) Breaded/fried chicken or breaded/fried fish (for example, chicken nuggets or fingers, fish sticks)	☐	☐	☐	☐	☐	☐	☐
c) One slice of pizza or a pizza snack (for example, a Pizza Pop®)	☐	☐	☐	☐	☐	☐	☐
d) One hot dog or sausage on a bun	☐	☐	☐	☐	☐	☐	☐
e) One hamburger or cheeseburger	☐	☐	☐	☐	☐	☐	☐
f) One sub or deli sandwich	☐	☐	☐	☐	☐	☐	☐
g) Whole grains (for example, whole grain bread or pasta, brown rice, whole grain cereal; like oatmeal, shredded wheat or Mini-Wheats®)	☐	☐	☐	☐	☐	☐	☐
h) Fruit, not including juice (for example, fresh, diced, canned, or frozen fruit)	☐	☐	☐	☐	☐	☐	☐
i) Dark green vegetables (for example, lettuce, broccoli, green beans)	☐	☐	☐	☐	☐	☐	☐
j) Dark orange vegetables (for example, carrots, squash, sweet potatoes/yams)	☐	☐	☐	☐	☐	☐	☐
k) Other vegetables (for example, other raw or cooked vegetables, like corn)	☐	☐	☐	☐	☐	☐	☐
l) French fries or other fried potatoes (for example, wedges, hash browns, poutine)	☐	☐	☐	☐	☐	☐	☐
m) One package of candy or one chocolate bar	☐	☐	☐	☐	☐	☐	☐
n) One slice of cake or pie, two cookies, one doughnut, one brownie, or other baked sweets	☐	☐	☐	☐	☐	☐	☐
o) Ice cream, an ice cream bar, frozen yogurt, a Popcicle®, etc.	☐	☐	☐	☐	☐	☐	☐

25. YESTERDAY, from the time you woke up until the time you went to bed, how many servings of the following did you drink?

	Number of servings						
	None	1	2	3	4	5	6+
a) White or chocolate milk, or soy beverages (for example, one cup or small carton of milk)	☐	☐	☐	☐	☐	☐	☐
b) 100% fruit juice or vegetable juice (for example, one cup or drinking box-size serving of 100% orange, apple or tomato juice)	☐	☐	☐	☐	☐	☐	☐
c) Fruit-flavoured drinks (for example, one cup or drinking box-size serving of Kool-aid®, Sunny D®, or lemonade)	☐	☐	☐	☐	☐	☐	☐
d) Regular (non-diet) pop or soft drinks (for example, one cup or can of pop)	☐	☐	☐	☐	☐	☐	☐
e) Diet pop or soft drinks (for example, one cup or can of diet pop)	☐	☐	☐	☐	☐	☐	☐
f) Sports drinks (for example, one cup or a small bottle of Gatorade®)	☐	☐	☐	☐	☐	☐	☐
g) High energy drinks (for example, one cup or can of Red Bull®)	☐	☐	☐	☐	☐	☐	☐
h) Hot chocolate, cappuccino, or frappaccino (for example, one mug of hot chocolate)	☐	☐	☐	☐	☐	☐	☐
i) Slurpees, slushies, or snow cones (for example, one small slurpee)	☐	☐	☐	☐	☐	☐	☐
j) Shakes (for example, one small milkshake)	☐	☐	☐	☐	☐	☐	☐
k) Water (for example, one cup or small bottle of water)	☐	☐	☐	☐	☐	☐	☐

26. On how many of the last 7 days did you eat breakfast?

☐ 0 days

☐ 1 day

☐ 2 days

☐ 3 days

☐ 4 days

☐ 5 days

☐ 6 days

☐ 7 days (every day)

27. On a usual day, how many servings of fruits and/or vegetables do you eat? (Include fresh, frozen, canned, and cooked items like apple, banana, carrots, salads, and 100% juice. <u>Do not include chips, French fries, or other fried potatoes</u>)

☐ 0 servings

☐ 1-2 servings

☐ 3-4 servings   1 serving =

☐ 5 servings

☐ 6 servings

☐ 7 servings

☐ 8 or more servings

Some examples of single servings:

½ cup of fresh, frozen or cooked vegetables

1 cup of raw leafy vegetables; like a small salad

1 medium fruit; like an apple, pear or banana

½ cup of 100% fruit or vegetable juice

28. If you wanted to eat healthy foods, how sure are you that you could choose healthy foods when you are eating:

	Not sure - 1	2	3	4	Very sure - 5
At home with your family?	☐	☐	☐	☐	☐
At school with your friends?	☐	☐	☐	☐	☐
At social events with your friends?	☐	☐	☐	☐	☐
At a fast-food restaurant?	☐	☐	☐	☐	☐
Alone?	☐	☐	☐	☐	☐

YOUR FEELINGS

29. We are interested in how you feel about playing actively, walking or biking to school, and eating healthy food. For each item, fill in the circle that best describes how you feel.

	Really false for me	Sort of false for me	Sort of true for me	Really true for me
I could play actively if I wanted to.	☐	☐	☐	☐
I could walk or bike to school if I wanted to.	☐	☐	☐	☐
I could eat healthy food if I wanted to.	☐	☐	☐	☐

30. We are interested in how you feel about yourself and how you think other people see you. For each item, fill in the circle that best describes your feelings and ideas in the past week.

	Really false for me	Sort of false for me	Sort of true for me	Really true for me
I feel I do things well at school.	☐	☐	☐	☐
My teachers like me and care about me.	☐	☐	☐	☐
I feel free to express myself at home.	☐	☐	☐	☐
I feel my teachers think I am good at things.	☐	☐	☐	☐
I like to spend time with my parents.	☐	☐	☐	☐
I feel free to express myself with my friends.	☐	☐	☐	☐
I feel I do things well at home.	☐	☐	☐	☐
My parents like me and care about me.	☐	☐	☐	☐
I feel I have a choice about when and how to do my schoolwork.	☐	☐	☐	☐
I feel my parents think I am good at things.	☐	☐	☐	☐
I like to be with my teachers.	☐	☐	☐	☐
I feel I have a choice about which activities to do with my friends.	☐	☐	☐	☐
I feel I do things well when I am with my friends.	☐	☐	☐	☐
My friends like me and care about me.	☐	☐	☐	☐
I feel free to express myself at school.	☐	☐	☐	☐
I feel my friends think I am good at things.	☐	☐	☐	☐
I like to spend time with my friends.	☐	☐	☐	☐
I feel like I have a choice about when and how to do my household chores.	☐	☐	☐	☐

APPENDIX C: HEALTHY SCHOOL PLANNER FOUNDATIONAL MODULE

STEP 1

Team

Planning for healthy school communities works well if the workload is shared and all key groups are involved. It is essential that students participate and that their ideas are respected.

QUESTION 1

Who is involved in completing this assessment for your school? (Select the number of participants for each group)

		# of participants			
a.	Students	0	1	2	3+
b.	Teaching staff member(s)	0	1	2	3+
c.	Other staff member(s) (e.g., educational assistant, custodian, administrative assistant, etc.)	0	1	2	3+
d.	Principal / Vice Principal	0	1	2	3+
e.	School / parent council representative	0	1	2	3+
f.	Parents / families / guardians	0	1	2	3+
g.	Health services professionals	0	1	2	3+
h.	Community organization / non-profit organization representative	0	1	2	3+
i.	School district / division / board representative	0	1	2	3+
j.	Other	0	1	2	3+

QUESTION 2

Does your school community have a leader for healthy school initiatives?

□ Yes

□ No

□ Don't know

STEP 2

Planning

Planning for a healthy school community involves using data from various sources to assist in identifying goals to work towards planning actions in each of the pillars of comprehensive school health in order to improve health and learning outcomes.

QUESTION 3

Has your school used data (e.g., surveys, attendance records, policy review) from the following to inform your action plan for creating a healthy school community?

		Yes	No	Don't Know
a.	Students	□	□	□
b.	Teachers	□	□	□
c.	Parents / families / guardians	□	□	□
d.	Formal review of policy or practice	□	□	□

QUESTION 4

Does your school develop goals that are specific, measurable, attainable, realistic and time limited within an action plan to create a healthier school community?

- ☐ Yes, we develop goals with all above criteria
- ☐ Yes, we develop goals without meeting all criteria
- ☐ No
- ☐ Don't know
- ☐ Our school does not have an action plan

QUESTION 5

Does your school community communicate that "healthier students are better learners" with the following groups at least once a year?

	Yes	No	Don't know
a. Students	☐	☐	☐
b. Teachers	☐	☐	☐
c. Parents / families / guardians	☐	☐	☐
d. Groups outside the school (e.g., neighbourhood association, local businesses)	☐	☐	☐

QUESTION 6

Does your action plan for a healthy school community include ways to:

	Not at all	Minimally	Somewhat	Fully
a. Support students in improving their well-being through **teaching and learning** (i.e., across the curriculum and inside & outside the classroom)	☐	☐	☐	☐
b. Foster a **social environment** at the school to enhance the well-being of the school community	☐	☐	☐	☐
c. Use the **physical environment** at the school to enhance the well-being of the school community	☐	☐	☐	☐
d. Develop or implement **healthy school policies**	☐	☐	☐	☐
e. Involve the broader school community to leverage **community partnerships and services**	☐	☐	☐	☐

STEP 3

Implementation across the 4 pillars of comprehensive school health
Teaching and Learning - Resources, activities and provincial/territorial curriculum where students gain age-appropriate knowledge and experiences, helping to build the skills to improve their health and wellbeing. Through formal and informal curriculum and associated activities, students gain knowledge, understanding and skills to improve their health and well-being and enhance their learning outcomes.

QUESTION 7

Beyond health and physical education classes, does your school encourage integration of health and well-being... (Select all that apply)

- ☐ during instructional time (e.g., across curriculum)?
- ☐ during non-instructional time (e.g., extra-curricular activities)?

QUESTION 8

Do students with a range of skills and characteristics (e.g., age, gender, ability, culture) play a leadership role in the organization of school activities?

□ In no activities (0-10%)

□ In some activities (11-50%)

□ In most activities (51-80%)

□ In all activities (81-100%)

Physical Environment -

The physical environment is safe and accessible and supports healthy choices for all members of the school community.
The physical environment includes:

- The buildings, grounds, play space, and equipment in and surrounding the school.
- Basic amenities such as sanitation and air cleanliness.

QUESTION 9

How well do the following physical environments promote safety and / or injury prevention:

	Not at all	Minimally	Somewhat	Fully
a. Outdoor spaces (e.g., adequate lighting, car-free zones, shade to promote sun safety)	□	□	□	□
b. Indoor spaces (e.g., facilities, equipment)	□	□	□	□
c. Air quality (e.g., temperature, free from mold)	□	□	□	□
d. Water quality (e.g., free from bacteria, taste, colour)	□	□	□	□

QUESTION 10

Do all members of your school community have equal and inclusive access during school hours to the following spaces?

	None	Some	Most	All
a. Outdoor spaces	□	□	□	□
b. Indoor spaces (e.g., toilets, change rooms, desks, classrooms)	□	□	□	□

Social Environment -

The social environment is:

- The quality of the relationships among and between staff and students in the school.
- The emotional well-being of students.
- Influenced by relationships with families and the wider community.

The school's social environment supports the school community in making healthy choices by building competence, autonomy, and connectedness.

QUESTION 11
Does your school community foster a safe and supportive environment for everyone?

□ Not at all

□ Minimally

□ Somewhat

□ Fully

QUESTION 12
Does your school community foster a respectful environment?

□ Not at all

□ Minimally

□ Somewhat

□ Fully

QUESTION 13
Does your school community foster a sense of connectedness:

	Not at all	Minimally	Somewhat	Fully
a. within the school?	□	□	□	□
b. with the broader community?	□	□	□	□

QUESTION 14
Are staff supported to maintain and improve their personal health and well-being?

□ Not at all

□ Minimally

□ Somewhat

□ Fully

Partnerships & Services -
The school collaborates with partners in the school community (e.g., families, community groups, businesses, non-governmental organizations, schools & school districts/divisions/boards, provincial/local/municipal governments, regional/local health authorities) to create & sustain a healthy school environment.

QUESTION 15
Does your school have at least one effective partnership with the following individuals or groups to promote and sustain a healthy school environment?

	Yes	No
a. Individuals / organizations within the school community (e.g., families, volunteers, parent council)	□	□
b. Other Schools	□	□
c. Community group(s) or non-governmental organization(s)	□	□
d. Business(es)	□	□
e. Government at any level	□	□
f. Health authority/health region	□	□
g. Other	□	□

QUESTION 16

Thinking of the "effective partnerships" identified in the previous question, which of the following supports have your partnerships provided in the last 12 months? (Select all that apply)

□ Funding

□ Services (e.g., health services, volunteer activities, training opportunities, professional development)

□ Material resources (e.g., handouts, signage, computers, equipment)

□ None of the above

□ Other

QUESTION 17

How many of your school community members (staff, students) are engaged in community service through your school (e.g., promoting community events, promoting or coordinating food drives, hosting blood donation clinics, raising money for charities)?

□ None (0-10%)

□ Some (11-50%)

□ Most (51-80%)

□ All (81-100%)

QUESTION 18

In a typical week, how often do community members (including parents) volunteer in your school? *Volunteer activities do not have to be specific to health and well-being (think about all volunteers in your school).*

□ Rarely

□ 1 or 2 days per week

□ Most days

□ Every day

Healthy School Policy - Management practices, decision-making processes, rules, procedures and policies at all levels that promote health and wellbeing, and shape a respectful, welcoming and caring school environment.

All school policies/guidelines and practices support learning outcomes while concurrently addressing healthy school initiatives in a planned, multi-faceted and integrative manner.

QUESTION 19

How frequently does your school engage the school community to review and update implementation of healthy school policies and practices (e.g., healthy eating policies, bullying policies)?

□ Never

□ Less than once a year

□ At least once per year

□ Don't know

QUESTION 20

Does your school use existing information or gather evidence to update implementation of policies and practices to create a healthy school community (e.g., district level reports, school satisfaction surveys, school accountability surveys)?

□ Not at all

□ Minimally

□ Somewhat

□ Fully

STEP 4

Celebrate!

Celebration of healthy school initiatives is an important part of instilling the concept and importance of health promoting schools in the minds of school students and staff, parents, the local community and senior officials.

QUESTION 21

How often does your school celebrate successful healthy school initiatives:

	Less than 1 time/year	1-2 time / year	More than 2 times/year
a. Within the school (students and staff)?	□	□	□
b. With the broader community (families, other groups)?	□	□	□

QUESTION 22

Does your school community recognize, acknowledge and celebrate contributions of volunteers?

□ Not at all

□ Minimally

□ Somewhat

□ Fully

STEP 5

Sustaining your healthy school community

A successful health promoting school takes steps to sustain its efforts and achievements into the medium- and long-term.

QUESTION 23

How many school staff participated in learning opportunities (e.g., professional development, staff meetings, expert consultations) related to creating a healthy school community in the last 12 months?

□ None (0-10%)

□ Some (11-50%)

□ Most (51-80%)

□ All (81-100%)

QUESTION 24

How well has your school community prepared a succession plan (formal or informal) if your leader for healthy school initiatives was to leave (e.g., having shared leadership, vice-chair, mentorship for new leader candidates)?

□ Not at all

□ Minimally

□ Somewhat

□ Fully

□ Our school does not have a leader for healthy school initiatives

QUESTION 25

How many of your healthy school initiatives are implemented school wide?

□ None (0-10%)

□ Some (11-50%)

□ Most (51-80%)

□ All (81-100%)

QUESTION 26

Are your healthy school initiatives embedded within your school's action plan?

□ Yes

□ No

□ Don't know

□ Our school does not have an action plan

STEP 6

Monitoring & Evaluation

A successful health promoting school seeks continuous improvement to its planning and implementation of policies and practices reflecting a comprehensive school health approach through ongoing monitoring and evaluation.

QUESTION 27

How often does your school formally assess its progress on creating a healthy school community?

□ Less than one time per year

□ One time per year

□ More than one time per year

□ Conducted a school assessment but did not use results to plan or monitor progress

APPENDIX D: HEALTHY SCHOOL PLANNER PHYSICAL ACTIVITY EXPRESS MODULE

QUESTION 1a

For each grade taught in your school, please indicate whether students taking physical and/or health education class take it for all or part of the school year.

	All year	Half of school year	Less than half of school year
Kindergarten	□	□	□
Grade 1	□	□	□
Grade 2	□	□	□
Grade 3	□	□	□
Grade 4	□	□	□
Grade 5	□	□	□
Grade 6	□	□	□
Grade 7	□	□	□
Grade 8	□	□	□
Grade 9	□	□	□
Grade 10	□	□	□
Grade 11	□	□	□
Grade 12	□	□	□

QUESTION 1b

For each grade taught in your school, please indicate the number of minutes a typical physical and/or health education **class** period consists of.

Minutes (0-120 minute range)

Kindergarten

Grade 1

Grade 2

Grade 3

Grade 4

Grade 5

Grade 6

Grade 7

Grade 8

Grade 9

Grade 10

Grade 11

Grade 12

QUESTION 1c
For each grade taught in your school, please indicate the number of days physical and/or health education is scheduled for in a typical week (Monday to Friday).

	1 day	2 days	3 days	4 days	5 days
Kindergarten	□	□	□	□	□
Grade 1	□	□	□	□	□
Grade 2	□	□	□	□	□
Grade 3	□	□	□	□	□
Grade 4	□	□	□	□	□
Grade 5	□	□	□	□	□
Grade 6	□	□	□	□	□
Grade 7	□	□	□	□	□
Grade 8	□	□	□	□	□
Grade 9	□	□	□	□	□
Grade 10	□	□	□	□	□
Grade 11	□	□	□	□	□
Grade 12	□	□	□	□	□

QUESTION 2
Is daily physical activity (DPA) for students during instructional time mandated at your school?
(Select all that apply)

□ Yes, this is mandated by our province or territory

□ Yes, this is mandated by our school district or school board

□ Yes, our school has its own guideline and/or policy

□ No, this is not mandated at our school

QUESTION 3
For each grade that daily physical activity (DPA) for students during instructional time is mandatory, please enter the number of minutes per day required.

Minutes (0-120 minute range)

Kindergarten

Grade 1

Grade 2

Grade 3

Grade 4

Grade 5

Grade 6

Grade 7

Grade 8

Grade 9

Grade 10

Grade 11

Grade 12

QUESTION 4

How many teachers at your school have participated in learning opportunities related to physical activity and physical and health education in the last year?

☐ None

☐ Some

☐ Most

☐ All

QUESTION 5

To what extent do each of the following statements apply to your school?

	Not at all	Minimally	Somewhat	Fully
The social and physical environments of the school assist students in developing the skills they need to lead an active lifestyle through their involvement in physical activity	☐	☐	☐	☐
School staff set a tone that supports involvement in physical activity (e.g., not using physical activity as punishment)	☐	☐	☐	☐
Students' participation and/or accomplishment in physical activity are recognized and celebrated	☐	☐	☐	☐
Students have the opportunity to develop leadership skills related to physical activity (e.g., through daily physical activity, intramurals)	☐	☐	☐	☐
Our school's policies and/or practices related to the social and/or physical environment contribute to physical activity opportunities for students	☐	☐	☐	☐
Physical activities are embedded in the daily life/culture of the school (e.g., school assemblies, fund-raising, staff meetings)	☐	☐	☐	☐
Sport and physical activities offered are designed to be inclusive of all students	☐	☐	☐	☐
Students have access to a variety of facilities to engage in physical activity (e.g., gymnasiums, multipurpose rooms, outdoor paved areas, playing fields)	☐	☐	☐	☐
Students have access to a variety of equipment to engage in physical activity (e.g., playground equipment, balls, skipping ropes)	☐	☐	☐	☐

QUESTION 6

Does your school have at least one effective partnership with the following individuals or groups to help students remain or become physically active?

	Yes	No
Families	☐	☐
Community group(s) or non-governmental organization(s)	☐	☐
Business(es)	☐	☐
Government at any level	☐	☐
Health authority/health region	☐	☐

QUESTION 7

Does your school have the following supports to help students remain or become more physically active?

	Yes	No
Funding, grants or donations	□	□
Services (e.g., programs, activities, guest speakers, teacher training)	□	□
Material resources (e.g., handouts, signs, equipment)	□	□
None of the above	□	□

APPENDIX E: HEALTHY SCHOOL PLANNER HEALTHY EATING EXPRESS MODULE

1. Is there a policy or a guideline(s) that contains recommendations or requirements for the types of food and beverages offered at your school? (Check all that apply)

   □ Yes, a province or territory policy or guideline

   □ Yes, our school district, division or board has a policy or guideline

   □ Yes, our school has its own guideline(s) and/or policy

   □ No policy or guidelines for the food and beverages offered at our school

   □ Don't know

2. Does the healthy eating policy or guideline(s) contain recommendations* or requirements** for foods and beverages offered in the following:

	Yes, requirements	Yes, recommendations	No recommendations or requirements for this outlet or activity	Not applicable (e.g., food outlet not available)	Don't know
Cafeteria	□	□	□	□	□
Lunch program	□	□	□	□	□
Breakfast program	□	□	□	□	□
Vending machines	□	□	□	□	□
Canteen/ tuck shop	□	□	□	□	□
Fundraising	□	□	□	□	□
Classroom or school celebrations	□	□	□	□	□
Rewards for students	□	□	□	□	□

3. How often do the foods and beverages offered in the following outlet or activity *follow* the policy or guideline(s)?

	Always	Sometimes	Rarely	Never	Don't know	N/A
Cafeteria	□	□	□	□	□	□
Lunch program	□	□	□	□	□	□
Breakfast program	□	□	□	□	□	□
Vending machines	□	□	□	□	□	□
Canteen/ tuck shop	□	□	□	□	□	□
Fundraising	□	□	□	□	□	□
Classroom or school celebrations	□	□	□	□	□	□
Rewards for students	□	□	□	□	□	□

4. Does your school offer any of the following free or reduced-price school food or beverage programs to students?

	Yes, to all students	Yes, to some students	No program	Don't know
Breakfast program	□	□	□	□
Lunch program	□	□	□	□
Milk program	□	□	□	□
Vegetable and fruit program	□	□	□	□
Snack program	□	□	□	□

5. To what extent do the following statements on food and beverage practices apply to your school?

	Fully	Somewhat	Minimally	Not at all	Don't know
Healthier food and beverages are subsidized, priced close to cost, or priced competitively with less healthy food to promote healthy food and beverage choices.	□	□	□	□	□
School staff model healthy eating (e.g., eating healthy meals and snacks, providing positive feedback to students about their food choices).	□	□	□	□	□
Students have a clean, orderly and inviting space to eat.	□	□	□	□	□
Students have at least 20 minutes to eat lunch once they are seated.	□	□	□	□	□
School ensures an allergy-safe environment, where applicable (e.g., peanut / nut safe).	□	□	□	□	□
School makes offering food grown in this province / territory a priority.	□	□	□	□	□
Advertising unhealthy food or beverages is not permitted in this school.	□	□	□	□	□

6. Does your school actively engage students in the promotion of healthy eating (e.g., events like Healthy Eating month, contests, grants, clubs, student summits)?
   □ Fully
   □ Somewhat
   □ Minimally
   □ Not at all
   □ Don't know

7. How many teachers at your school have participated in learning opportunities related to healthy eating in the past 12 months?
   □ All
   □ Most
   □ Some
   □ None

8. During the past 12 months, to what extent have the following components been included in healthy eating lessons at your school?

	Fully	Somewhat	Minimally	Not at all	Don't know
Influence of healthy eating on growth and development (e.g., health impacts / consequences, body image).	□	□	□	□	□
Decision-making and behaviour change skills to support healthy personal food choices.	□	□	□	□	□
Skills training (e.g., media literacy, planning and preparing healthy meals and snacks).	□	□	□	□	□
Teaching staff use current, reliable Canadian and culturally appropriate healthy eating resources / activities in the classroom (e.g., Eating Well with Canada's Food Guide, Dietitians of Canada).	□	□	□	□	□
Healthy eating is integrated into other curriculum areas (e.g., science, physical education).	□	□	□	□	□

9. Does your school have at least one effective partnership with the following individuals or groups to promote and sustain a school environment that facilitates healthy eating among students?

	Yes	No
Families	□	□
Community group(s) or non-governmental organizations	□	□
Business(es)	□	□
Farmers / food producers (such as community gardens)	□	□
Health authority/health region	□	□
Government at any level	□	□

10. Which of the following supports do your partnerships provide to help facilitate healthy eating within your healthy school community? (Check all that apply)
   □ Funding, grants or donations
   □ Services (e.g., programs, activities, guest speakers, teacher training)
   □ Material resources (e.g., handouts, signs, equipment)
   □ None of the above

APPENDIX F: Theory of Planned Behaviour Detailed Tables

How sure are you that you could choose healthy foods when you are eating at school with your friends?

	Ate fruit or veg. 6 or more times yesterday ***	Ate fruit, veg. or fruit juice 6 or more times yesterday ***	No candy yesterday	No sweet drinks yesterday **	No junk food yesterday	3 or more milk servings yesterday	Ate breakfast on all of the last 7 days**
1 – Not sure (n=81)	17.3%	37.0%	14.8%	16.7%	2.5%	25.6%	64.6%
2 (n=170)	15.8%	50.9%	14.9%	22.0%	2.4%	28.1%	58.0%
3 (n=195)	28.5%	60.8%	15.1%	26.2%	5.2%	36.4%	71.7%
4 (n=196)	34.4%	70.4%	16.8%	38.2%	5.6%	35.6%	77.4%
5 – Very sure (n=139)	33.3%	69.3%	19.1%	27.2%	2.2%	30.9%	71.2%

* differences significant at p < 0.05 |** differences significant at p < 0.01 | *** differences significant at p < 0.0001

How sure are you that you could choose healthy foods when you are eating at social events with your friends?

	Ate fruit or veg. 6 or more times yesterday **	Ate fruit, veg. or fruit juice 6 or more times yesterday ***	No candy yesterday	No sweet drinks yesterday *	No junk food yesterday	3 or more milk servings yesterday	Ate breakfast on all of the last 7 days
1 – Not sure (n=126)	16.8%	47.6%	17.6%	24.0%	4.0%	29.8%	62.1%
2 (n=201)	23.9%	52.3%	21.8%	27.2%	4.0%	28.0%	68.3%
3 (n=205)	28.4%	63.9%	29.8%	22.8%	2.0%	34.5%	71.2%
4 (n=134)	27.7%	67.7%	13.7%	37.2%	6.0%	30.2%	73.7%
5 – Very sure (n=105)	41.8%	72.1%	19.2%	31.1%	4.8%	41.8%	71.4%

* differences significant at p < 0.05 |** differences significant at p < 0.01 | *** differences significant at p < 0.0001

How sure are you that you could choose healthy foods when you are eating at a fast-food restaurant?

	Ate fruit or veg. 6 or more times yesterday *	Ate fruit, veg. or fruit juice 6 or more times yesterday **	No candy yesterday	No sweet drinks yesterday	No junk food yesterday	3 or more milk servings yesterday	Ate breakfast on all of the last 7 days
1 – Not sure (n=317)	22.7%	51.4%	16.9%	38.3%	3.2%	27.8%	67.3%
2 (n=185)	22.7%	62.3%	14.3%	25.3%	2.7%	30.9%	67.6%
3 (n=137)	31.1%	69.1%	16.2%	33.6%	3.7%	39.6%	74.5%
4 (n=62)	30.7%	66.1%	11.3%	26.7%	4.8%	33.3%	72.6%
5 – Very sure (n=73)	40.9%	69.4%	23.6%	31.9%	9.7%	38.9%	71.2%

* differences significant at p < 0.05 |** differences significant at p < 0.01 | *** differences significant at p < 0.0001

Propel Centre for Population Health Impact
Lyle S. Hallman Institute, University of Waterloo
200 University Ave. W., Waterloo, Ontario, Canada N2L 3G1
Telephone: (519) 888-4520 • Fax: (519) 746-8171
E-mail: propel@uwaterloo.ca • www.propel.uwaterloo.ca

The Propel Centre for Population Health Impact was founded by
the Canadian Cancer Society and the University of Waterloo.