



**JUNE 2009 PROGRESS REPORT**



Alberta Project Promoting  
active Living & healthy Eating







## APPLE Schools, June 2009 Report

A year of promotion of healthy eating and active living

The APPLE School project has had an outstanding year. This report provides an overview of the exceptional work done in each of our 10 APPLE Schools. As well, the report includes early research results showing promising changes towards healthy eating and active living over the durations of the first full year of the intervention.

APPLE Schools, as a project, has quickly matured and is already being seen as a model project for the promotion of healthy eating and active living in schools. It is receiving national and international interest for the approach to change school environments in such a way that the healthy choice becomes the easy choice. For example, the interest has led to invitations to present at conferences such as the School Health network of Europe (SHE) being held in Latvia, and the International Society for Behaviour, Nutrition, and Physical Activity being held in Portugal. Also, inquiries and requests related to program details have arrived from Wales to Australia and from all across Canada. The demands of delivering the APPLE Schools program make it challenging to accept all these invitations and requests to travel and speak. As the project advances we will seek ways to accommodate this.

## More Measurements

Objective measures of physical activity in children have shown to have higher validity in accurately quantifying physical activity levels compared to self-reported activities that are currently used. Pedometers have become increasingly popular as an objective measurement tool for children's physical activity levels. Pedometers are relatively inexpensive, re-usable, small, light-weight motion sensors that measure ambulatory activities. Pedometers record raw output of steps taken. Step counts have intuitive utility and allow for direct comparison with the recommendation by the Canadian Fitness and Lifestyle Research Institute that children need 16,500 steps per day. We have expanded our measurements with the use of time-stamped pedometers which contain software functions enabling the recording of steps per hour. These devices are more costly though do provide the opportunity to discriminate between physical activities during school hours and physical activities outside of school hours. Another advantage is that the steps are electronically stored which avoids error-prone manual recording. We have begun recording physical activity in all of the APPLE Schools and some compatible control schools. We have also developed a Pedometer Log to record activities when the pedometer cannot be used, such as swimming and hockey. A computer readout of the students' activity levels has been provided to every student after they have worn the pedometer for one week. The processing of pedometer information is computational and requires some mathematical modeling. We hope to report some early findings in the next report.



## APPLE Schools Logic Model

The following logic model has been provided to assist others to understand the project. A logic model provides an overview of the process evaluation which can enhance health promotion interventions by improving the quality of their delivery. A process evaluation gives a clear picture of how well a program is implemented as well as a view of the context in which it is being delivered. In addition, the information provided in the logic model allows for distinctions to be made between a program that is ineffective, or a program that was only ineffective due to poor delivery. A process evaluation can determine if a program is feasible, acceptable and sustainable, and thus the evaluation can be designed around the following four constructs:

- **Fidelity** - the quality of the program delivery and the extent to which the program was delivered as planned
- **Dose delivered** - the number of interventions received by the target
- **Dose received** - to what extent is the target audience actively engaged in the intervention activities
- **Reach** - how much does the target audience participate in the intervention and are there any larger environmental factors that may influence the intervention

The model is built upon those factors that input the direction the project is taking, the visible activities and indicators of change, the immediate outcomes of the activities/indicators and the ultimate impact the project will achieve. The project is built upon the following goals:

- 60% of students in 5 out of 10 APPLE schools will meet the requirements of Canada's Food Guide to Healthy Eating.
- 60% of students in 5 out of 10 APPLE schools will be physically active in accordance with Canada's Physical Activity Guides for Children and Youth (April 2002)
- School Health Facilitators demonstrate the knowledge, skills and attitudes necessary to plan, implement and execute a three year intervention
- Schools are able to implement a health promoting school model.

Inputs	Outputs		Outcome Indicators	Impact
	Activities to support goals	Process Indicators (Yearly)		
<p><b>APPLE CORE Committee comprised of:</b></p> <ul style="list-style-type: none"> <li>• Teachers</li> <li>• Community</li> <li>• Student</li> <li>• Staff</li> <li>• Parents</li> <li>• Facilitator</li> </ul> <p>Facilitator – 1 in each school</p> <p>Context:</p> <ul style="list-style-type: none"> <li>• Administrative support</li> <li>• Funding</li> <li>• Offices</li> <li>• School board activities/policies</li> <li>• Existing school programs; e.g., IB</li> </ul> <p>School administration: Principal Vice principal</p> <p>Goals of Project</p>	<ul style="list-style-type: none"> <li>• Equitable opportunities</li> <li>• Community Engagement</li> <li>• Create shared vision</li> <li>• Curriculum implementation</li> <li>• Adult Learning: teachers/parents</li> <li>• Healthy social environments</li> <li>• Healthy Physical Environments</li> <li>• Policies</li> <li>• Healthy School plan for action</li> <li>• Assessment</li> <li>• Research</li> </ul>	<p>Grade 5 students: % of students completing surveys: Harvard Food Frequency, Health Literacy Assessment; heights and weights, pedometer study.</p> <p>Parents: % of Parents completing the survey of perceived child health attitudes and behaviours</p> <p>Teachers: Focus group themes</p> <p># of teachers who attend PD provided by project</p> <p>Administrators: % of principals completing the survey</p> <p>% of meetings administrators attend</p> <p>Core Committee:</p> <ul style="list-style-type: none"> <li>• Comprehensive representation of school community</li> <li>• # of meetings</li> <li>• Three-year APPLE School plan is created and reviewed</li> <li>• Activities in plan address goals of project</li> <li>• Plan is reviewed regularly</li> <li>• Goals of project are integrated in the overall school three-year plans in each school.</li> <li>• KSA of a School Health Facilitator defined and measured</li> </ul>	<p>Immediate indicators:</p> <ul style="list-style-type: none"> <li>• ↑ in healthy eating behaviours of Grade 5 students in each school</li> <li>• ↑ in physical activity levels of Grade 5 students in each school</li> <li>• # of community partnerships created</li> <li>• ↑ in HATS scores for CSH implementation</li> <li>• ↑ in Facilitator knowledge, skills and attitudes</li> <li>• ↑ request for presentations to enhance knowledge exchange</li> </ul>	<p>Improve positive health behaviours</p> <p>Reduced rates of overweight and obesity in children.</p> <p>School boards value and hire school health facilitators.</p> <p>Government develops policy and support for CSH in schools.</p> <p>Strengthened capacity for CSH model to be utilized in schools.</p> <p>International demand for knowledge exchange from project.</p>

The following assumptions are embedded in the APPLE schools logic model:

- Three and a half years is an adequate time frame for the anticipated outcomes to be observed and measured.
- A CSH Model will effectively support achievement of the goals of the APPLE Schools Project.
- Each APPLE School Facilitator can and will affect the intended changes in their school.
- An APPLE School Facilitator can be trained with the appropriate skills attitudes and behaviours to perform their role.
- School administration and teachers will accept and implement activities proposed by the APPLE Core Team.
- The successful results observed in the Annapolis Valley, Nova Scotia may be replicated in other schools with different contexts.
- Healthy food and activity will have a positive effect on overweight and obese children and youth.
- Education, changes to environment and awareness will translate to behaviour change.



## Overview of Activities for the 2008 – 2009 School Year

APPLE Schools are implementing a comprehensive school health (CSH) model in each school and this report provides an overview of the activities in the schools organized by the pillars of the CSH model. Because all APPLE schools will become Ever Active Schools for sustainability purposes, we will organize the activities using the EAS definitions for the pillars of CSH.

**Education:** The following bullets represent a sampling of educational opportunities for students, teachers, administrators and parents to increase their knowledge of healthy eating and active living to support a culture of learning.



- Coordinate monthly themed healthy eating and active living (HEAL) campaigns which include bulletin board displays, newsletters for parents (translated into Punjabi for one school), student activities and daily announcements for all students.
- Create visual displays in all schools to identify the school as an APPLE School including information tables at the entrance to the school to address HEAL.
- Provide education to students in the lunch rooms and classrooms on nutritious food choices including lessons on portion sizes, sugar intake, healthy snacks and healthy lunches.
- Increase support for physical activity by creating fourteen Daily Physical Activity (DPA) bins that are circulated throughout the school.
- Provide educational opportunities on nutrition and physical activity curricula for teachers in a variety of ways including demonstration lessons, half-day in-services, sharing at staff meetings, school-based PD days, bulletin boards in the staff rooms, and resources being displayed.
- Assist teachers in the delivery of activities and programs such as gymnastics, dance, Power to Play, Power 4 Bones, snow shoeing, fitness events,



- Complete physical fitness assessments (Active Body Challenge) for grade 4, 5 and 6 students to increase understanding of fitness.
- Provide education for Facilitators on comprehensive school health, nutrition, gymnastics, large group activities, physical activity, obesity, and working with people/teambuilding. They also participate in mentoring one another, as well as other keen schools in the Edmonton-area.
- Present sessions at the Physical and Health Education of Canada National Conference, Edmonton Public/Edmonton Catholic Schools Wellness Symposium, Ever Active School Symposium, Elk Island School Board PD Day, Elk Island Catholic Schools Health and Wellness Committee.
- Accept invite to speak at the Canadian Population Health Initiative as part of the Canadian Institute for Health Information panel on “Population health intervention research: What works and under what circumstances?” and the National Obesity Summit in Kananaskis, Alberta.
- Work with the City of Edmonton to successfully pilot Incredible Edibles, an after-school cooking program for students.
- Coordinate parent information sessions on healthy lunches and snacks during various events for parents at the school; e.g., meet the teacher, parent/teacher interview evenings.



- Supervise a dietetic intern by one of our dieticians.
- Create a Jeopardy-type game to teach healthy eating and active living concepts to grade 5 students as part of the pedometer study.

**Everyone:** The following bullets include examples of collaboration in a meaningful way with the people involved in the everyday life of the school to provide equal and inclusive opportunities for everyone in the school community to make healthy choices.

- Collaborate with local community leagues, junior highs and high schools, local recreation centres and organizations to participate in school events and provide leadership to students and staff.
- Work with Community Leagues to increase use of community facility; e.g., opening skating rinks after school, Girl Power.
- Work with School Health Nurses and Regional Health Promotion Coordinators to develop partnerships and projects; School Health Fair, Sugar Shocker displays.
- Work with staff to choose end-of-the-year field trips that would include physical activities and healthy food.
- Increased parent involvement in school events and activities focusing on health and physical activities; e.g., SOS – Save our Snack initiative to have parents help prepare the daily snack program.
- Collaborate and share with APPLE Schools Facilitators and administrators at monthly staff meetings and mentorship opportunities.
- Participate as an integral part of parent councils, staff meetings and other school-related committees.
- Implement contests and competitions to increase vegetable intake, physical activity and staff



wellness; e.g., Caught being active, or Caught being healthy awards, Globetrotting Challenge, students raced staff around the world with after-school activity and fruit and vegetable consumption during lunch hour, Little Big Run, pedometer challenges.

- Demonstrate and model healthy living; e.g., provide healthy snacks and meals at all APPLE events, including a healthy cake alternative for celebrations.
- Coordinate and educate a student leadership group (e.g., Health Busters, Healthy Hoppers) to support student activities related to healthy eating and active living; e.g., taste testing, recess activities, assembly presentation, intramurals.
- Coordinate and implement opportunities for physical activity for all students and staff; clubs for running, skipping, floor hockey and girls-only, Fitness Fridays, snowshoeing, etc.
- Coordinate weekend events to bring families together to participate in physical activities and eat healthy food; e.g., snow shoeing, skating, relays.
- Work with *Lids for Kids* to provide all students at one school with bike/multi-purpose helmets to increase participation in cycling, skiing, etc.



**Environment:** The following bullets provide examples of how APPLE Schools foster safe social and physical environments in the home, school and community and cultivate a school community where everyone knows they belong.



- Supply DPA bins in all schools as well as recess bins to increase daily physical activity in each classroom or during physical education.
- Distribute forty to eighty pounds of apples in each school on a weekly basis
- Implement nutrition policy to address the Alberta Nutrition Guidelines.
- Lead Energizers at assemblies; teacher inservices, during school wide events.
- Provided opportunities to taste test a variety of vegetables and fruits and send messages home to the parents regarding results.
- Repaint tarmac surfaces to include playground games.
- Sell healthy snacks during recess and lunch; e.g., Healthy Snack Shack
- Coordinate Whole school events: Winter Walk Day, 12 days of Fitness & Fun in the Sun Active Living Challenge Day, Jump Rope for Heart, Walk at School (recess walking program).
- Create a 1km track around a school yard and challenge classes to run either 23 times (1/2 marathon for ECS- Gr. 4) or 46 times (full marathon for Gr. 5-9) in honour of the community in Africa that the school supports.
- Influence existing program to be more nutritious; e.g., pancake day now serves whole wheat pancakes and fresh fruit with yogurt, no candy at penny carnivals and Valentine's day events; St. Patrick Day had healthy green snacks of vegetables and fruits; fresh vegetables and fruits now available during breakfast programs, family bbq's and hot lunches.

- Apply for research grants and opportunities for funding to ensure sustainability of programs in schools.
- Grow vegetables all year in several classrooms. Collaboration with the United Nation's *Growing Connections* project , Alberta Agriculture, and the University have now been finalized. Alberta Agriculture has provided funding for 25 Earth boxes to be grown on the roof of Holy Cross School.
- Provide small recognition for students with phone calls home about great lunches in September and October, 2008



**Evidence:** The following bullets identify goals, planning for action and gathering data to indicate the effectiveness of actions and policies to support healthy active lifestyles throughout the school community.

- Organize and operate an APPLE Core Committee dedicated to creating and sustaining a healthy school community environment.
- The Committee creates an action plan for the school community by assessing the health of the school and facilitated discussion to create a vision.
- Coordinate the research done each year in APPLE Schools including the pedometer study.



- Evaluate teachers' use of DPA bins, need for healthy eating and active living PD, and how the facilitators can help them.
- Gather student voices in a variety of ways to help measure impact of program on these stakeholders.
- Conduct qualitative research with focus groups in each school to determine what is changing and how in each school. (Results available fall 2009).
- Conduct focus groups with teachers to demonstrate change in classrooms and school communities



## Summary

The APPLE School project members are about to complete their first full school year of promoting healthy eating and healthy lifestyles in the APPLE Schools. They are all thrilled with the changes that have occurred and are occurring in the school environment. They are further excited that the accomplished changes in the school environment are reflected in promising behavioural changes towards healthy eating and active living. More students now meet the recommendations for vegetable and fruit consumption and for physical activity. With these motivational figures in mind, the School Health Facilitators will reconvene for the summer to plan the next school year.

The next year will be a new challenge as School Health Facilitators will intensify their activities, backed by more experience and increased support. They are all proud to make a difference and to work on a world-class project. The team continues to provide leadership, education and direction to many projects and schools across Alberta, Canada and internationally.

MAKING THE HEALTHY  
CHOICE THE EASY CHOICE



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