



Alberta Project Promoting  
active Living & healthy Eating

## Progress Report | JUNE 2010





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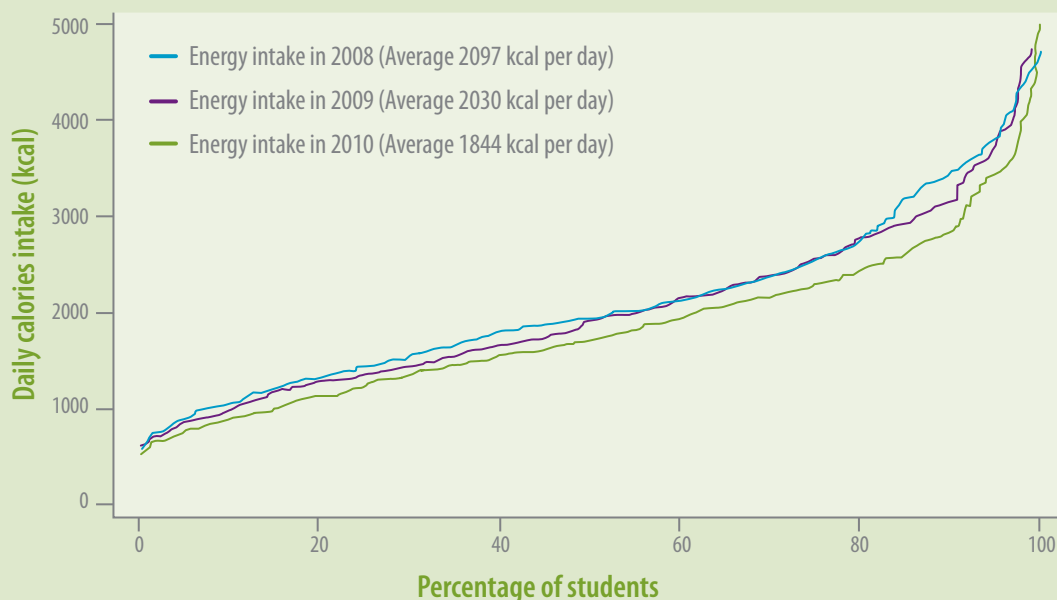
## This progress report...

summarizes our activities of the past three months that relate to the evaluation of changes among students and to the preparation of expanding the APPLE Schools program. This spring we completed our third annual round of data collection. This report will present observations on diet, physical activity and body weights along with those from 2008 and 2009. The observed temporal changes are very promising and in support of our current discussions on program up scaling and expansion. In this respect, this report summarizes the progress in preparing an APPLE Schools expansion in Fort McMurray as well as the interactions we had with government to gain their interest in program support.

## Evaluation of Healthy Eating

School health facilitators aim to change the school environment such that the healthy choice becomes the easy choice. We view this as the most effective way to promote healthy eating and active living with the long term objective of preventing chronic diseases. We educate students to eat according to Canada's food guide and particularly encourage the consumption of vegetables and fruits. With a better compliance with Canada's food guide one expects that nutritious foods take the place of energy dense snacks like chocolate bars, potato chips and fast foods. The Figure shows the energy intake of grade five students in 10 APPLE Schools in 2008 (blue line), in 2009 (purple line) and 2010 (green line). Overall we observed a decrease in average calorie intake from 2097 Kcal per day in 2008, to 2030 Kcal per day in 2009, and 1844 Kcal per day in 2010. Importantly, larger reductions occur where it is mostly needed: the Figure shows that in 2010 substantially fewer students reported energy intakes exceeding 2500 Kcal per day. Temporal declines in energy intake were observed among both boys and girls.

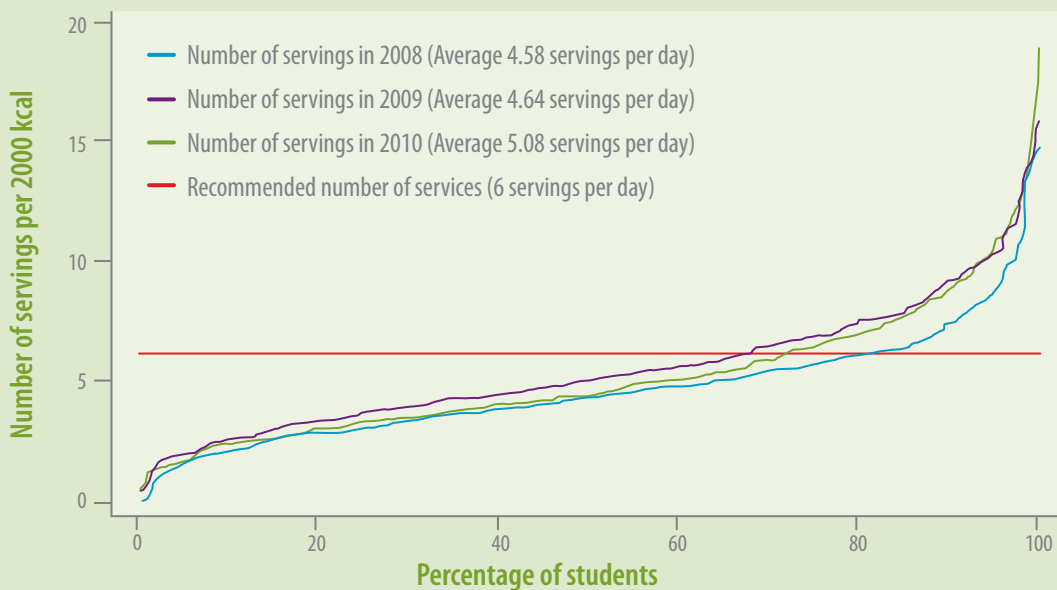
### Energy Intake by Year



A total of 288 grade 5 students were surveyed in 2008, 337 students in 2009 and 385 students in 2010.

Where we observed a reduction in energy intake, the foods consumed included relatively more vegetables and fruits. The Figure shows that the 2010 consumption of vegetables and fruits is higher for all student percentiles. However, those students in higher intake percentiles seem to have improved the most, whereas those in lower intake percentiles, and thus most in need of increasing their consumption, only marginally increased their consumption. This is valuable feedback for the school health facilitators who will adapt their strategies to increase their efforts to reach those students whose consumption is the lowest.

### Intake of Vegetables and Fruits by Year



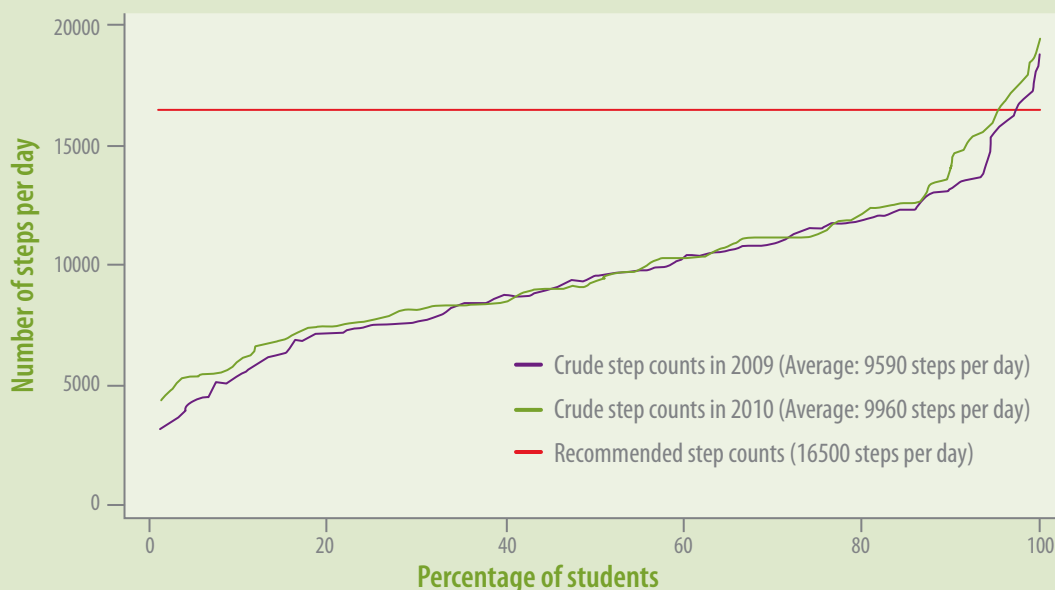
## Evaluation of Physical Activity

In 2009 we started using time-stamped pedometers to objectively measure physical activity and thus not to have to rely on self-report by students and/or parents. Pedometers record the number of steps taken whereas the more sophisticated time-stamped pedometers that we use, record steps taken for each hour of the day. These pedometers also have memory chips for electronic recording of step counts, so the error-prone, manual recording of steps is avoided.

In 2009 and 2010 grade five students had been asked to wear pedometers for seven consecutive days. The Figures show the number of steps for boys and girls taken per day as recorded in 2009 (purple line) and 2010 (green line).

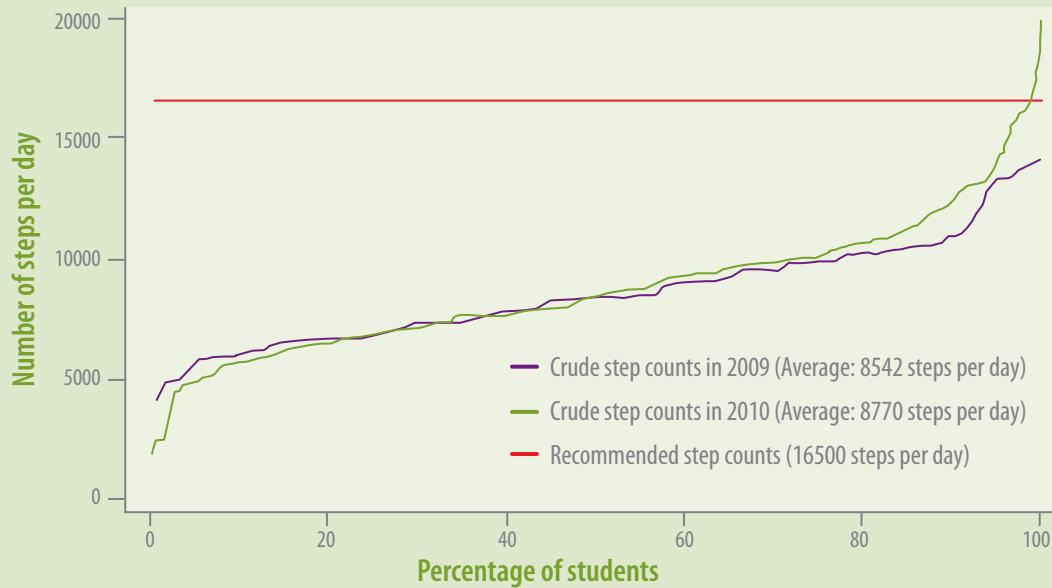
Among boys we observe increased activity levels and particularly in the lower percentiles. Among girls, overall we observe an increase, though not in the lowest 20 percentiles. Again, this is important feedback to the school health facilitators in that they should further emphasize efforts of promoting activity among these girls.

### Step Counts of Boys by Year



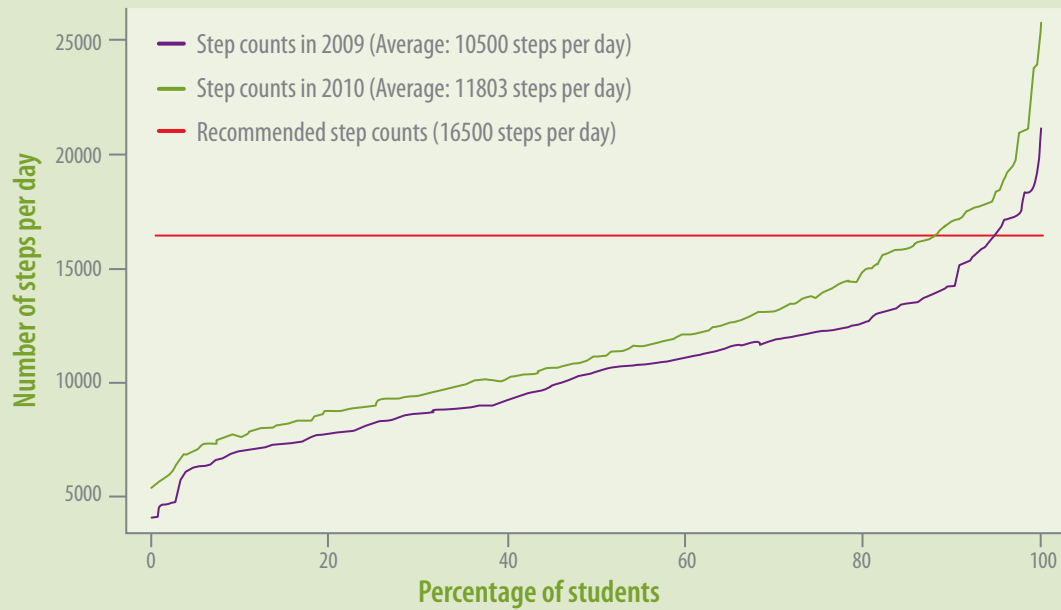


## Step Counts of Girls by Year



The step counts in [the figures on the following page](#) represent 'crude steps' that are all objectively measured. However, pedometers are not good in capturing activities such as cycling and rowing. In addition, activities including hockey, swimming, and martial arts, may be entirely missed as pedometers are generally taken off. To include these activities, students were asked to keep an 'activity diary'. If these reported activities are added to the recorded 'crude steps' we have a better estimate of the total activities of students, though it does rely somewhat on self-report and thus is no longer 100% objective. The figure shows that activity levels in 2010 were substantially higher than in 2009 and that more students met the recommendation of 16,500 daily steps in 2010 relative to 2009.

## Step Counts of Students by Year

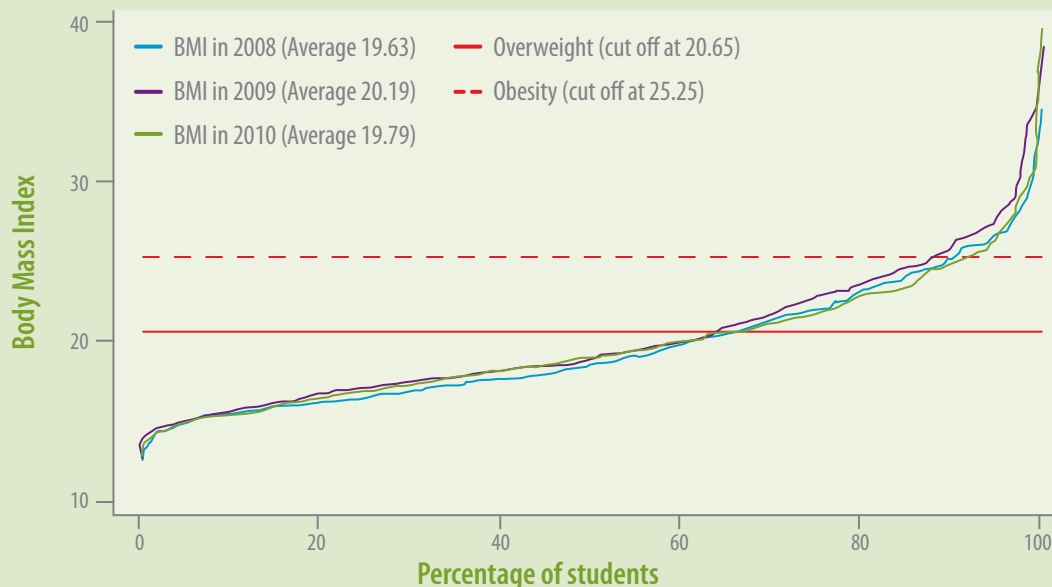




## Evaluation of Body Weights

Given the temporal reductions in energy intake and increases in activity levels, it is not surprising to see this reflected in healthier body weights. The Figure shows the body mass index distributions for 2008 (blue line), 2009 (purple line) and 2010 (green line). Health behaviors and body weights need time to change. The time between 2008 and 2009 was evidently too short to change body weights (see Figure) but we are happily surprised that 2 years of APPLE Schools programming did turn the tide as is reflected in lower body mass indices in the higher body weight percentiles.

### Body Mass Index (BMI) by Year



In 2008, the prevalence of overweight was 36% and the prevalence of obesity 13%. In 2009, these were 38% and 14% respectively. And in 2010, these were 37% and 11% respectively.

## APPLE Schools in Fort McMurray

The enthusiasm for the APPLE Schools program had put us in the position to start thinking in terms of expanding it to other schools and jurisdictions. As requested in March, we began exploring whether we could implement the program in schools in Fort McMurray and have been communicating intensively with various potential partners and collaborators in Fort McMurray. On June 21, Marg Schwartz accompanied by one of the facilitators, Jenn Patrick, travelled to Fort McMurray to meet with the following stakeholders:

- **George McGuigan**, Associate Superintendent, Ft. McMurray Catholic School District
- **Phil Meagher**, Associate Superintendent, Ft. McMurray Public Schools (FMPS)
- **Ray Campbell**, District Curriculum Coordinator (FMPS)
- **Lorraine Demers**, District Partnership Coordinator (FMPS)
- **Richard Thorne**, Principal of Timberlea K-8 School (FMPS)
- **Michelle Kulmatycky**, Teacher at Timberlea K-8 School (FMPS)
- **Dana Schattle**, Teacher at Composite High School (FMPS)
- **Melanie Vance**, Health Promotion Coordinator (Alberta Health Services)
- **Caroline Evanchio**, Health Promotion Coordinator (Alberta Health Services)

All attendees support comprehensive school health and embrace the idea of APPLE Schools in their schools. In fact, Fort McMurray appeared to have some capacity for comprehensive school health (the *Healthy School Communities*) that could facilitate the implementation of the APPLE Schools programs. The meeting further included discussions as to how APPLE Schools programming could start as early as the school year 2010/2011 and that all 15 schools with elementary grades (please see Figure) could be reached within the next 8 years. The reality of an APPLE Schools program in Fort McMurray is that it will be difficult to hire school health facilitators with qualifications in nutrition, physical education and health promotion. A solution that may work for this setting is to hire existing teachers that will deliver the program. This has some implications for the budgeting as their salaries are higher and because program management and professional development will need to be delivered out of Edmonton.

The deliverables of a continued eight-years APPLE Schools program in Edmonton with the expansion to include Fort McMurray schools with elementary grades is summarized as follows:

**Deliverables for 2010 – 2018 APPLE Schools programming in Edmonton and Fort McMurray**

All 15 schools with elementary grades in Fort McMurray will have the APPLE Schools program

The total number of APPLE schools in Alberta will amount to 57

Approximately 28,000 students will be reached

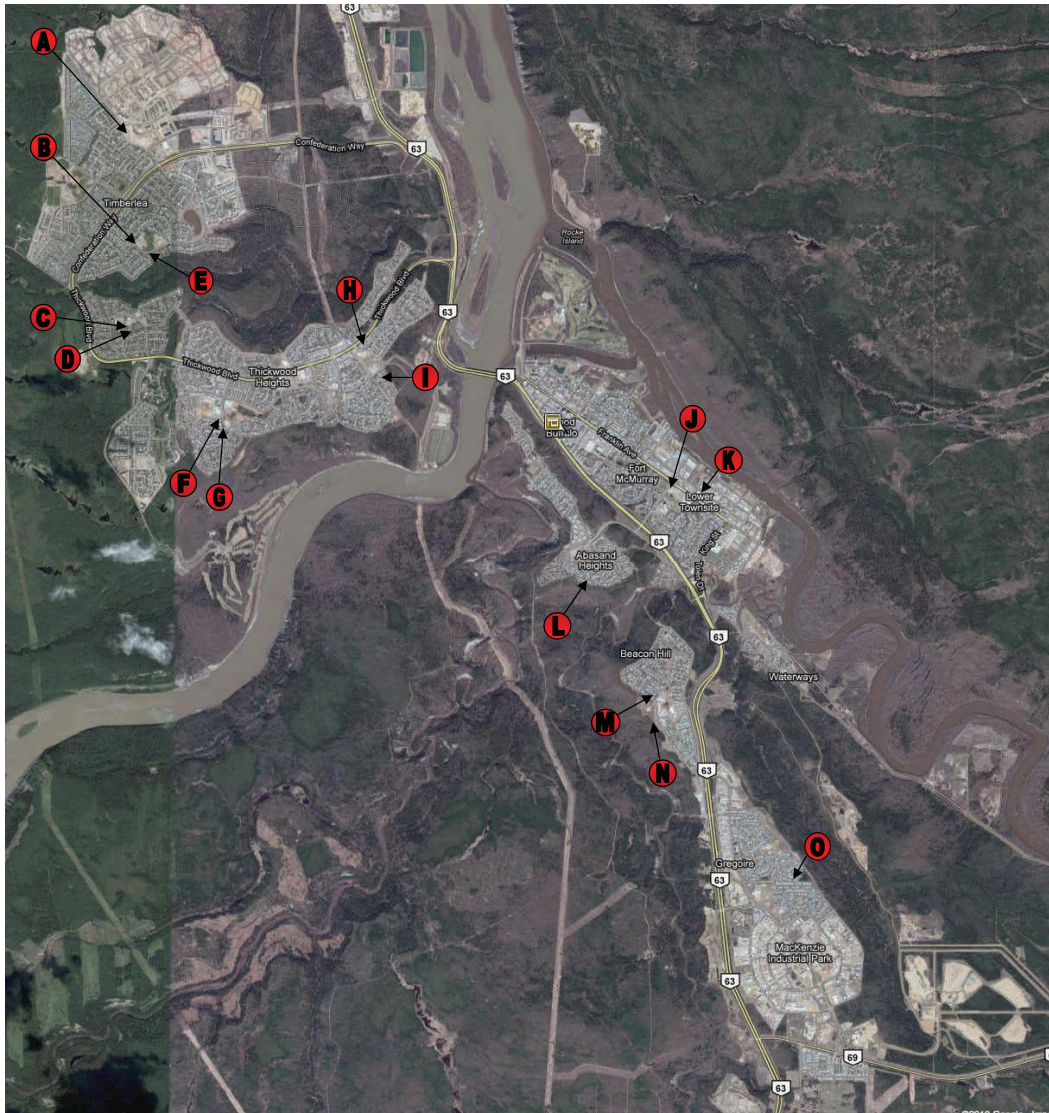
Resources developed by the APPLE Schools program will be made available to the benefit of programs elsewhere

Continued evaluations will strengthen the case of broader benefits of the APPLE Schools program

The projected costs for July 2010 to June 2018 for the continued APPLE Schools program in Edmonton and with the expansion in Fort McMurray schools are projected to total to \$16,137,624. The breakdown is as follows:

**Costs for 2010 – 2018 APPLE Schools program in Edmonton and Fort McMurray**

<b>Total costs: July 2010 – June 2018</b>	<b>\$16,137,624</b>
% for school health facilitators	52%
% for management	16%
% for evaluation, knowledge translation and dissemination	12%
% for research	10%
% expendables	4%
% for professional development and travel	4%
% for school supplies	2%



## Apple Schools Fort McMurray Expansion

### LEGEND

- |                                      |                                |                                       |                               |
|--------------------------------------|--------------------------------|---------------------------------------|-------------------------------|
| <b>A</b> St. Martha School           | <b>E</b> Timberlea School      | <b>I</b> Thickwood Heights School     | <b>M</b> Beacon Hill School   |
| <b>B</b> St. Anne School             | <b>F</b> St. Gabriel School    | <b>J</b> Father J.A. Turcotte School  | <b>N</b> Good Shepherd School |
| <b>C</b> Ecole Dickinsfield School   | <b>G</b> Westview School       | <b>K</b> Dr. K.A. Clark School        | <b>O</b> Greely Road School   |
| <b>D</b> Sister Mary Phillips School | <b>H</b> Ecole St. Paul School | <b>L</b> Ecole Father Beaugard School |                               |

## Interactions with Government to gain support for the APPLE Schools program

Conversations about APPLE Schools with Government of Alberta representatives have been on-going and will continue in the coming weeks.

- Minister Alison Redford was briefed on May 25, 2010 in Calgary
- President Indira Samarasekera met Minister Dave Hancock in June and discussed the APPLE Schools program. Minister Hancock is committed to working with the University to address child health. The APPLE Schools program was discussed to spearhead this commitment.
- The Minister Hancock has asked to meet with President Indira Samarasekera at the end of August to show funding options with a phased approach as he feels his ministry could take a lead on a school health strategy.
- We communicated with Neil MacDonald, Executive Director, Alberta Health and Wellness (AHW) and Ellen Hambrook, Assistant Deputy Minister, Alberta Education and agreed to develop a provincial strategy to support comprehensive school health in Alberta.
  - Other ministry personnel have been contacted in order to ensure there is clear understanding of the APPLE school program include:
    - Joan Engel, Director; Michelle Kilborn, Manager; Karen Fetterly, Team Lead, Alberta Education
    - Spence Nichol, Alberta Education
    - Dr. André Corriveau, Chief Medical Officer of Health, Alberta Health and Wellness
    - Jim Gray, member of the Premier's Economic Advisory Council
    - Lloyd Bentz, Executive Director, Sport and Recreation Division, Alberta Tourism, Parks and Recreation
- We continue to engaged in presentations on the APPLE Schools program to both Alberta Health and Wellness and Alberta Education. Various levels of managers, ADM, Executive Directors attended.

Further meetings with partners and stakeholders in comprehensive school health will be established over the summer to produce a provincial strategy based on the knowledge gained by APPLE Schools and other projects currently funded by government. A draft provincial strategy is scheduled to be developed for September 2010.









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## Making the Healthy Choice the Easy Choice