

Health Assessment of School-Aged Children 2008-09

Feedback Report for All Schools



Prepared for Dr. John Millar and Lydia Drasic by:
University of Waterloo, Centre for Behavioural Research and Program Evaluation
Dr. Steve Manske, Ed.D Scientist
Lisa Stockton, SHAPES Project Coordinator
Christina Kroeker, SHAPES Senior Project Manager

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The Health Assessment of School-Aged Children makes use of the School Health Action, Planning and Evaluation System (SHAPES). SHAPES is a data collection and feedback system designed to support population-based intervention planning, evaluation, and field research related to youth. SHAPES is developed by the Centre for Behavioural Research & Program Evaluation (CBRPE) at the University of Waterloo.

The development of report content was a collaborative effort between several groups including:

- The Population Health Research Group (PHR) at the University of Waterloo
- The Centre for Behavioural Research and Program Evaluation at the University of Waterloo
- The Provincial Health Services Authority (PHSA)
- The Ministry of Healthy Living and Sport
- The Ministry of Education

The Population Health Research Group at the University of Waterloo generates individual school reports from survey data. Through a largely automated system with quality control and editing procedures we can ensure that the data you receive are accurate and can be returned to your school in a timely manner.

Support for development of SHAPES provided by:



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Introduction

The Health Assessment of School-Aged Children is a project to help BC schools gather information on the nutrition, physical activity, smoking behaviour, and self-perception of grade six students to help BC schools plan their health improvement activities.

The health assessment process consists of two parts, both focused on grade six students:

- A student questionnaire, in collaboration with the Centre for Behavioural Research and Program Evaluation at the University of Waterloo
- Height and weight measurements

During the 2008-09 school year the Health Assessment of School Age Children Project operated in nineteen schools, 15 Elementary Schools and 4 Middle Schools, throughout BC. We are pleased to provide you with the results of the health assessment of grade six students.

The results – provided in this feedback report – are intended for your use in planning and evaluation on health-improvement initiatives.

We hope you find the feedback report useful, and we encourage you to share the results with staff, students, parents, and the community.

The Health Assessment of School-Aged Children project is managed by the Provincial Health Services Authority (PHSA), implemented in partnerships with participating schools, and endorsed by BC's regional health authorities. It is funded by the BC Ministry of Healthy Living and Sport, PHSA and Child Health BC.

Any results that are published or otherwise disseminated provincially will maintain the anonymity of schools that participated.

If the number of students responding is small enough that it might be possible to identify individual student responses, findings are not reported. In some cases, results in table columns or rows and charts may not add to 100% due to rounding.

For more information on this report, please contact:

Lydia Drasic
(604) 675-7425
ldrasic@phsa.ca

Dr. John Millar
(604) 675-7494
jmillar@phsa.ca

How to Use this Report

Use this report to identify areas of strength to build on or areas that can be addressed concerning student health and health promotional activities. Share the results with students, school staff, parents and community members. Overall student wellness can be improved through contributions at many levels. For example:

Students can:

- Explore ways to take action on areas of concern through student government and other student-led groups
- Engage teachers and administrators in dialogue about the results to better understand the issues, seek solutions and create student-driven action plans
- Join a school-based action team or student club dedicated to healthy living
- Organize new initiatives at school (e.g. intramural sports program, recognition/awards program for people who have made a difference in promoting healthy living, initiate student/staff healthy living challenge, organize a health fair)

School Staff can use the report data to:

- Support recommendations within school improvement plans
- Plan and deliver health, physical education or other related curricula
- Develop opportunities for staff to model healthy behaviours
- Initiate new partnerships with parents/community resources to promote healthy living
- Support requests for funding (e.g. grant programs)
- Advocate for new community programs or resources
- Enhance implementation of health policies
- Enhance delivery of services or programs for students (e.g. counselling, school cafeteria)
- Follow-up and evaluate implemented actions
- Share data with local public health units and/or school boards to identify potential areas for collective action among schools
- Look for opportunities to engage students in problem solving and planning
- Advocate for increased emphasis on health as a priority in school activities and curricula.
- Connect students to other schools in the district to share what has been done and explore partnership opportunities

Parents/Families and the Community can:

- Plan activities with school council or parent advisory council
- Consider hosting a forum or approaching media to gain support for healthy living initiatives
- Create opportunities to model healthy behaviours at home
- Support the school! Share skills, talents or resources to help address the issues identified in the report
- Participate in an open house where community groups can share health and wellness programs

Change is more likely to succeed when schools...

- Engage all stakeholders, especially students. By genuinely considering various perspectives and voices in your planning, you can expect increased support for solutions. You will also build capacity and improve your ability to achieve your main objective. Consider adding parents, community and health organizations.
- Use a comprehensive school health approach to promote healthy behaviours. This includes activities that address all of the following: (1) *A healthy physical environment*, (2) *Instruction and programs* (3) *A supportive social environment and* (4) *Community partnerships*. Communication through education is necessary but not sufficient for achieving change. To facilitate healthy behaviours, consider all components of a comprehensive school health approach. Promote environments that make the healthy choice the easy choice.
- Link with other resources (people and/or programs in the community).
- Communicate, coordinate, and collaborate.
- Evaluate results.

Part A: Healthy Eating

Healthy Eating: The Issue

Healthy Eating is a School Issue

- Schools are an ideal setting to establish and promote healthy eating amongst children and youth.¹
- Well-nourished children and adolescents are more likely to be better prepared to learn, to be active, and to maintain their health as adults.²
- There is a growing body of evidence demonstrating that children who eat poorly do not perform as well as they could academically, and that improvements in nutrition can result in improvements in academic performance.³

Healthy Eating is a Student Issue

- In the past 25 years there has been a dramatic increase in the percentage of Canadian adolescents who are overweight or obese. Overweight/obesity in adolescence often persists into adulthood.⁴
- In 2004, 62% of boys and 68% of girls aged 9-13 ate less than 5 servings of vegetables and fruit per day.⁵
- During adolescence, youth become more responsible for making choices about what they eat.

Healthy Eating is a Community Issue

- Home, family and community environments have a significant impact on a child's nutrition and health. Children who eat home-prepared meals are more likely to include more milk and milk-alternatives, vegetables, fruits and other fibre- and nutrient-dense foods. Of equal importance, they also eat fewer fried foods and soft drinks than children who eat out.⁶
- Both fast food consumption and food portion sizes have increased significantly in the past 20 years, coinciding with increases in the incidence of childhood overweight and obesity.⁷

Healthy Eating with Canada's Food Guide

Canada's Food Guide provides a practical pattern of eating to help Canadians make healthy food choices and reduce their risk of obesity and chronic diseases. For more information on the food guide go to: www.healthcanada.gc.ca/foodguide. The recommended number of **servings** per day for each food group for children aged 9-13 years are:

Vegetables & Fruit	6 servings
Grain Products	6 servings
Milk and Alternatives	3 – 4 servings
Meat and Alternatives	1 – 2 servings

Schools Can Make a Difference...

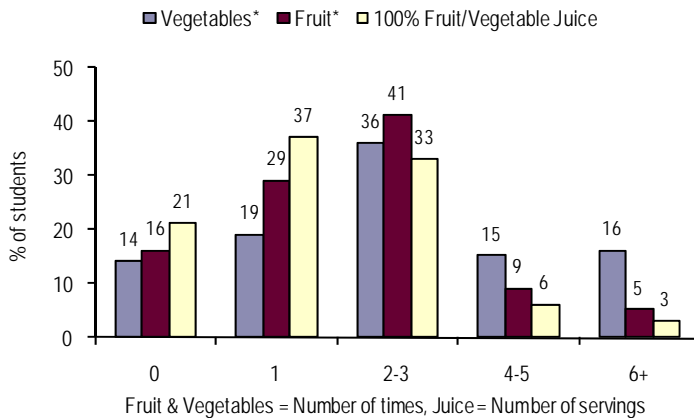
Health and learning go hand in hand. When schools, families and the broader community work together to make healthy choices easy, student health and academic achievement improve.⁸ Currently, schools in Canada are involved in promoting healthy eating through activities such as providing breakfast, lunch and snack programs; hosting student forums to discuss healthy eating; inviting chefs to teach about healthy cooking; promoting a fruit or vegetable of the month; and partnering with local food producers to help students learn about locally-grown foods.

Food Intake

The results presented in this section capture largely weekday eating. Students were asked about the number of *times* they consumed various food items, and the number of *servings* they drank of various liquids. Please use caution in comparing the food results to Canada’s Food Guide as times do not necessarily equal servings.

Fruit & Vegetables

Vegetable and Fruit Consumption Yesterday



*Please note: Times are not equal to servings. Serving size is not accounted for.

When asked about last weekend, 50% of students said they consumed vegetables and fruit at least six times, while 6% reported not eating any vegetables or fruit during that period. Among the students who did not eat any vegetables or fruit last weekend, 61% also reported zero consumption of fruit or vegetable juice. Note that weekend consumption is based on two days.

When vegetables and fruit are added together, 33% of girls and 34% of boys report consuming vegetables and fruit at least six times the day before the survey (this does not include juice consumption). The graph to the left shows the number of times students reported eating vegetables and fruit and the number of servings of 100% fruit or vegetable juice students said they drank the day before the survey.

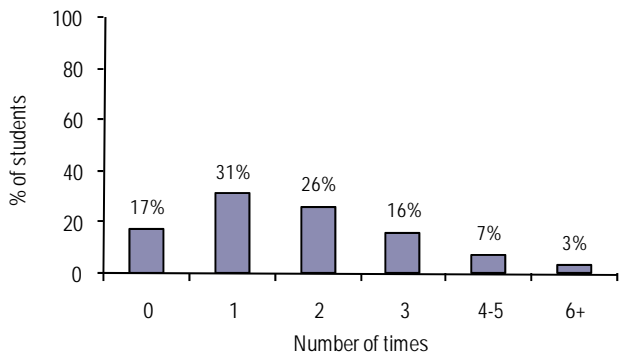
Quick Facts

Canada's Food Guide recommends:
 1) eating at least one dark green and one orange vegetable each day and
 2) having vegetables and fruit more often than juice.

Whole Grain Products

Canada’s Food Guide recommends making at least half of your grain products whole grain each day. Results show that 26% of students reported eating whole grains, such as whole grain bread or pasta, at least three times in the previous day.

Number of Times Eating Whole Grains Yesterday



When asked about last weekend, 10% of students said they consumed whole grains at least six times over the two days, while 18% reported zero consumption of these food items.

Grain products, particularly whole grains, are a source of fibre and typically are low in fat. Fibre rich foods can help people feel full and satisfied. A diet rich in whole grains may also help reduce the risk of cardiovascular disease.⁹

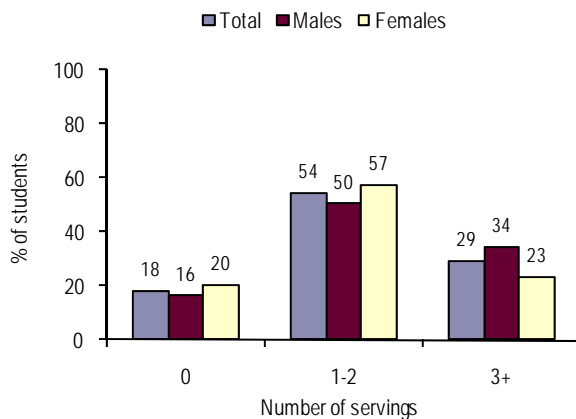
Refer to “Tips and Recipes for School Food Services” for information and ideas for using whole grains to boost fibre and nutrients in schools. You can find these resources at www.healthyeatingatschool.ca.

Milk & Alternatives

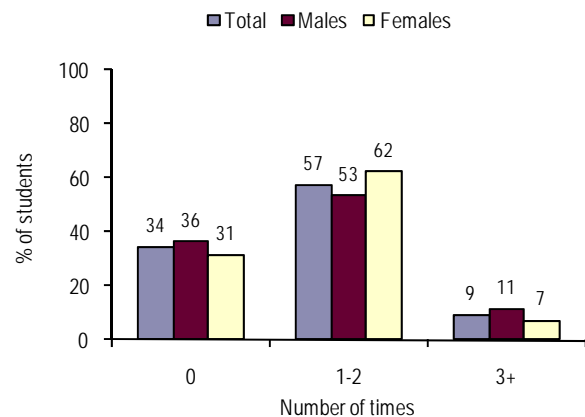
Milk is the primary source of calcium and vitamin D in the diets of adolescents and children. Both are important during adolescence, a time of critical bone growth. In a 2004 national survey, among Canadian youth ages 10 to 16, 61% of boys and 83% of girls were not consuming adequate amounts of milk and milk products⁵, leaving them at risk for osteoporosis later in life.

Students were asked how many *servings* of white or chocolate milk, or soy beverage they drank the previous day. Students were also asked about the number of *times* they ate cheese or yogurt the previous day. The results are reported in the graphs below.

Number of Servings of Milk Students Consumed Yesterday, by Gender



Number of Times Students Consumed Milk Products* Yesterday, by Gender



*Please note: Times are not equal to servings. Serving size is not accounted for.

When asked how many servings of milk they consumed last weekend, 43% of students said they drank 3 or more servings of milk, 38% said they drank 1-2 servings of milk, and 19% said they consumed no milk at all. When consumption of cheese and yogurt is combined, 19% students reported eating these milk products 3 or more times last weekend, while 52% said they eat these products 1-2 times, and 29% reported zero consumption last weekend. Note that weekend consumption is based on two days.

Schools Can Make a Difference...

Schools can impact their students' healthy eating behaviours through:

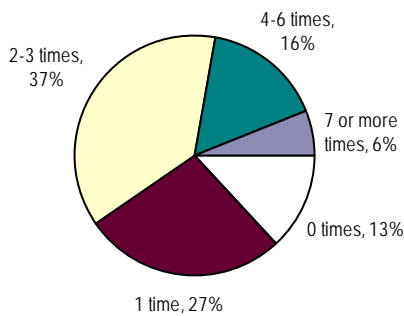
- Providing and promoting foods with maximum nutritional value wherever and whenever food is sold or otherwise offered at school, including vending machines, canteens, cafeterias and hot lunch programs.
- Educating students and the school community about the value of healthy eating. All BC schools have been provided with a set of Healthy Eating and Physical Activity Resources for Grades K-10 that help teachers support students develop knowledge and skills to make lifelong healthy choices.
- Making every effort to include foods with maximum or moderate nutritional value on special occasions, such as in-school celebrations, holidays, and end-of-year events.
- Fundraising with healthy foods or non-food items. Refer to "Healthy Fundraising at School" for creative fundraising ideas (www.dashbc.org/upload/Healthy%20Fundraising%20For%20Schools.pdf).
- Providing opportunities to taste vegetables and fruit by registering with the BC School Fruit and Vegetable Nutritional Program (www.aipc.ca/bc/snacks), or with Action Schools! BC Healthy Eating and applying for the tasting activity grant (www.actionschoolsbc.ca).

Other Foods

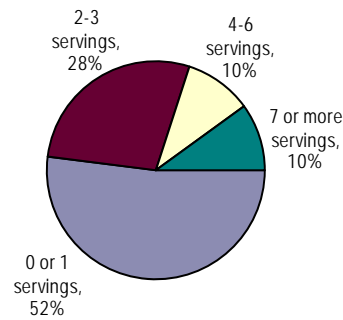
Students were asked about their consumption of foods that provide few nutrients and are generally high in fat, sugar and salt (sodium). The results show 77% of students reported eating candy, baked sweets or frozen desserts, 53% reported eating salty snacks at least once the previous day, and 71% reported drinking at least one serving of a sweetened beverage the day prior to the survey.

The number of times students ate high fat, salty or sugar snacks the previous day was summed to provide a picture of their total daily frequency of consumption of non food-group foods* (shown in graph below left). The graph below to the right shows the number of servings of sweetened beverages** that students reported drinking the previous day.

Combined Number of Times Students Consumed High Fat, Salty or Sugar Snacks Yesterday



Number of Servings of Sweetened Beverages Students Consumed Yesterday



*The following non-food group foods are included in the total: candy and chocolate, cake, pie, cookies, doughnuts, brownies and other baked sweets, ice cream, ice cream bars, frozen yogurt, popsicles®, and salty snacks (including; chips, cheesies, nachos, etc.).

**The following sweetened beverages are included in the total: fruit-flavoured drinks, regular pop, sports drinks, high energy drinks, hot chocolate, cappuccinos, frappaccinos, slurpees, slushies, and snow cones.

Quick Facts

According to the 2004 Canadian Community Health Survey, 25% of all calories consumed by teens come from non-food group foods, which include high fat, sugary and/or salty foods.⁵ A snack of a 600 ml bottle of pop and a chocolate bar provides almost 25 tsp of sugar and 600 calories!

When high fat, salty and sugar snacks were combined, 42% of students reported consuming these items four or more times last weekend, while 11% reported not eating these items at all last weekend. Results indicate that 29% of students reported drinking four or more servings of sweetened beverages last weekend, while 22% reported not drinking any of these beverages last weekend. Note that weekend consumption is based on two days.

Schools Can Make a Difference...

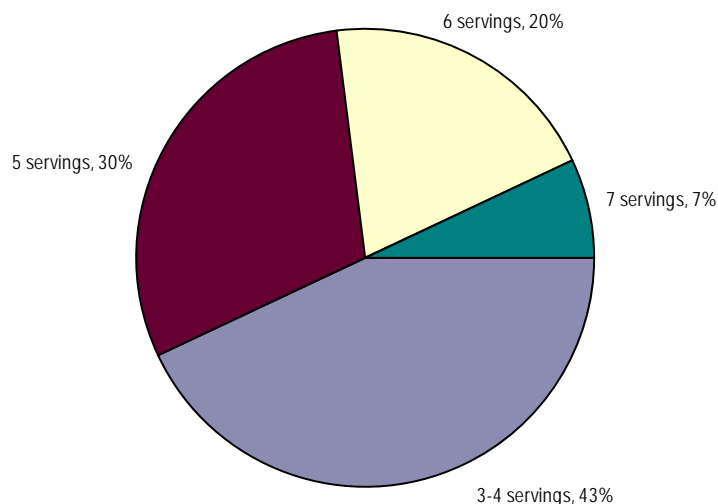
All BC schools are now required to implement the Guidelines for Food and Beverage Sales in BC Schools (2007). The guidelines apply to food and beverages sold in all school locations, including vending machines, school stores and at fundraisers and other special events. Consider using the Choose Most/Choose Sometimes checkmark system found in these guidelines to assist students in making informed choices about nutrition. For a copy of the guidelines see: www.bced.gov.bc.ca/health/guidelines_sales.pdf

Sip Smart! BC is an educational program that aims to raise the awareness of students in Grades 4, 5 and 6 of the negative health effects associated with drinking sugary drinks, and the health benefits of choosing healthy drinks. Sip Smart! BC will be available to all BC elementary schools in September 2009. For registration information visit: www.bcpeds.ca/sipsm.

Fruit & Vegetable Knowledge & Attitudes

Overall, 20% of students correctly identified that people their age (9-13) should eat 6 servings of fruit and vegetables per day.

How many servings of fruit/vegetables should a person of your age eat each day for good health?



Action Schools! BC is a best practices model designed to assist schools in creating individualized action plans to promote healthy living. The Action Schools! BC – Healthy Eating component was developed to increase vegetable and fruit consumption amongst BC’s children. Action Schools! BC – Healthy Eating School Food Grants (\$300 per year) are available to support fruit and vegetable Tasting and Learning Activities in the *Classroom Healthy Eating Action Resource*.

The BC School Fruit and Vegetable Nutritional Program provides students and school staff with a fresh fruit or vegetable snack twice per week every other week. Whenever possible, the fruits and vegetables provided are grown in BC.

We asked students about their attitudes and intentions to eat fruits and vegetables. The table below shows the percentage of students who “agreed a little” or “agreed a lot” that they could or would eat fruits or vegetables in the following situations:

<i>Intention to eat fruits or vegetables</i>	“Agreed a little”	“Agreed a lot”
Could eat 2 or more servings of fruit every day	19%	68%
Could eat 3 or more servings of vegetables every day	32%	39%
Could eat fruit or vegetables for lunch in front of their friends	13%	77%
Would eat a fruit or vegetable they had never tried before	32%	26%
Would try a new fruit or vegetable at a friend’s house	33%	32%

Schools Can Make a Difference...

Provide students with opportunities to learn about and taste vegetables and fruit by registering with:

- 1) Action Schools! BC, www.actionschoolsbc.ca
- 2) BC School Fruit and Vegetable Nutritional Program, www.aitc.ca/bc/snacks

Student Eating Behaviour

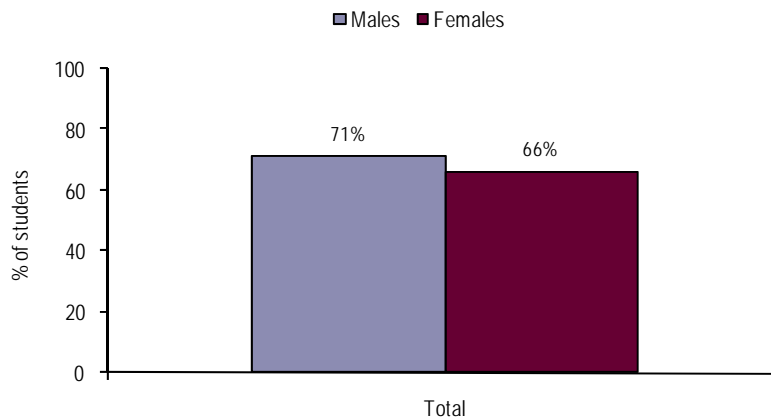
Breakfast Consumption

The results show 71% of boys and 66% of girls report eating breakfast every day in a usual school week (Monday to Friday). Breakfast eating is associated with improved academic performance¹⁰ and has been shown to be associated with lower rates of obesity.¹¹

Breakfast eating usually declines with age.¹² A number of factors including concerns with body weight, and decreases in shared family meals appear to influence the decline in breakfast consumption in adolescents.¹²

The chart below shows students who eat breakfast every day. In contrast, 3% of boys and 4% of girls reported they do not eat breakfast at all in a usual school week.

Percentage of Students Who Eat Breakfast Every Day in a Usual School Week by Gender



Students who reported they do not eat breakfast every day gave the following reasons for skipping breakfast:

<i>If you do not eat breakfast every day, why do you skip breakfast?</i>	% responding “yes”
I don't have time for breakfast	30%
The bus comes too early	5%
I sleep in	14%
I'm not hungry in the morning	39%
I feel sick when I eat breakfast	13%
I'm trying to lose weight	5%
There is nothing to eat at home	7%

Schools Can Make a Difference...

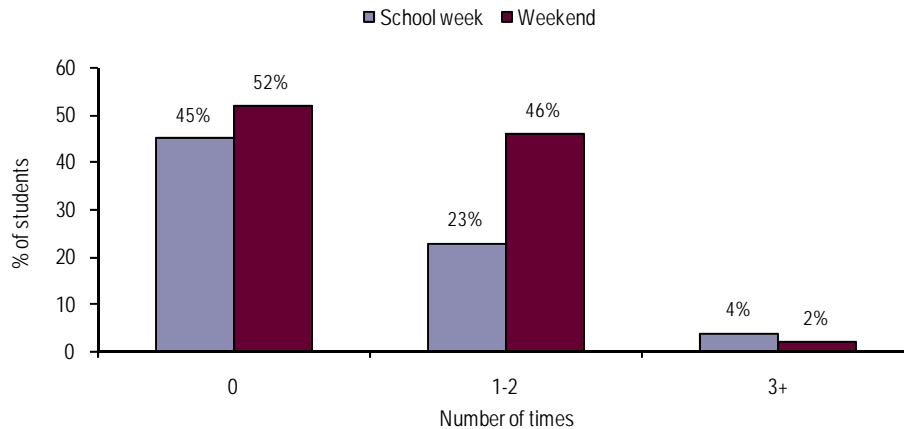
Schools wanting to either start a School Meal Program, or enhance an existing Program, can refer to the School Meal and School Nutrition Program Handbook. This Handbook supports school meal coordinators, school administrators, caterers, and others who are involved in providing healthy food and beverages at school to vulnerable students. It includes general operational information and resources relating to School Meal and School Nutrition Programs, guidelines for serving healthy foods, sample menus, healthy substitutions and promising solutions for feeding vulnerable students. This resource is still in development, but will eventually be posted at www.bced.gov.bc.ca/health.

Eating Out

Away from home foods are higher in fat and energy compared with foods eaten at home.¹² Frequency of fast food restaurant use has been associated with a significantly lower intake of fruits, vegetables, grains and servings of milk.¹³

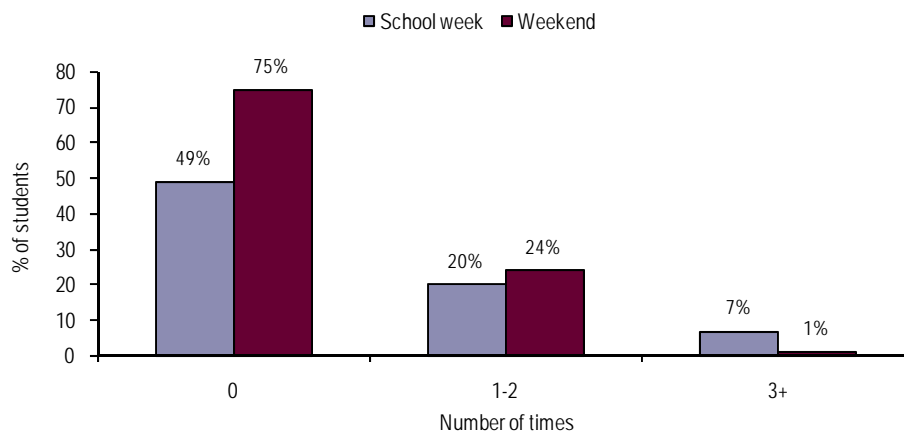
Overall, 27% of students reported eating foods purchased at a fast food place or restaurant at least once in a usual school week, while 28% reported eating these foods less than once per week, and 45% reported not eating these foods at all in a usual school week.

Number of Times Students Eat Foods Purchased at a Fast Food Place or Restaurant during a Usual School Week and Usual Weekend



In addition, 27% of students reported eating snacks purchased from vending machines, corner stores, snack bars or canteens at least once in a usual school week, while 24% reported eating these foods less than once per week, and 49% reported not eating these foods at all in a usual school week.

Number of Times Students Eat Snacks purchased from a Vending Machine, Corner Store or Snack Bar during a Usual School Week and Usual Weekend



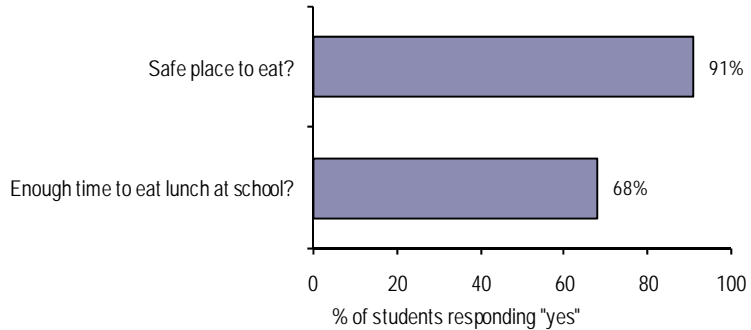
Schools Can Make a Difference...

The Guidelines for Food and Beverage Sales in BC Schools aim to enhance healthy eating at school by providing healthy food and beverage choices in vending machines, canteens and school food programs. See the Healthy Eating at School website (www.healthyeatingatschool.ca) to read about schools' successes in impacting students' food choices by making positive changes to the food and beverages sold in schools.

School Environment

The environment can have a powerful influence on eating behaviour. A pleasant eating area encourages students to pay attention to what they are eating and to enjoy the sensory and social aspects of a healthy meal.¹⁴ Providing students with an adequate amount of time and an appropriate place to eat lunch are key factors in the development of healthy eating habits and send the message that schools value mealtime.¹⁵

The results show that 91% of students feel their school offers a safe place to eat their lunch. Moreover, 68% of students said that they have enough time on most school days to eat their lunch at school.



Offering food as a reward can set up habits and attitudes towards foods that may be unhealthy in the long run. In this survey, 41% of students indicated that they received food as a treat or prize at school this year.

Schools Can Make a Difference...

Schools can provide opportunities for and promote healthy eating among students by acting on the following recommendations:

- ✓ Provide dining areas that are attractive, safe and have sufficient space for seating.
Schools should ensure:
 - All students have access to a table and chair of appropriate height.¹⁴
 - All tables and chairs are cleaned before each meal.
- ✓ Using non-food rewards if you reward your students for good behaviour, for example: free time, extra gym time, extra computer time, homework pass, stickers, erasers.
- ✓ Make amenities to support healthy eating available to students.
Schools should ensure:
 - Drinking fountains are available for students to get water at meals and throughout the day.
- ✓ Provide meal and snack periods that are long enough for students to eat and socialize.
Schools should:
 - Provide students and staff with a minimum of 20 minutes to eat lunch. This provides time for the brain to register that the body is satisfied, provides a break in routine, and restores energy and enthusiasm for afternoon classes.
 - Schedule meals and other activities so they complement each other, rather than compete. For example, implement a “Play Before Lunch” policy that allows the students to have play time before eating lunch. This results in calmer and quieter students that are more focused on eating than on getting outside to play. For more information, refer to the “Play First Lunch Toolkit” that can be accessed on the Healthy Eating at School website (www.healthyeatingatschool.ca).

Social Influences on Healthy Eating

Dietary patterns of children and youth develop largely within the family environment.¹⁶ Some of the familial factors influencing youth include food exposure and availability, parental modeling, meal structure and family meals, parenting style and parental attitudes and knowledge about nutrition.¹⁷

Family meals are perceived positively by both children and parents.¹⁸ In a usual seven-day week, 82% of students report eating meals with at least one adult family member four or more times.

Generally, family presence at the evening meal is positively associated with children's higher consumption of vegetables, fruits and dairy foods.¹⁹

Recognizing and supporting family connectedness is critical to the success of programs aimed at improving the nutrition of children and youth.²⁰

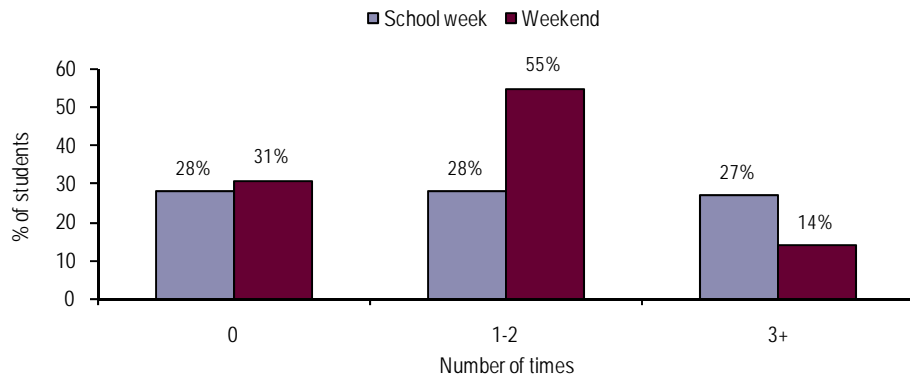
* Juice is not included. Please note: this table contains the number of *times* students ate vegetables & fruit which is different than the number of *servings*.

<i>Meals with adult family member in a usual seven-day week</i>	Percentage of Students	
	Ate vegetables & fruit < 6 times yesterday*	Ate vegetables & fruit ≥6 times yesterday*
Eats 4 or more meals/week with adult family member	66%	34%
Eats less than 4 meals/week with adult family member	67%	33%

Quick Facts

Adolescents who watch television during family meals have been found to have lower intakes of vegetables, calcium-rich foods and grains and higher intakes of soft drinks compared with those not watching television during meals.²¹

Number of Times Students Eat Meals While Watching Television during a Usual School Week and Usual Weekend



In addition, 16% of students reported eating meals while watching television less than once per week during a usual school week.

Schools Can Make a Difference...

Teaching about healthy eating extends beyond the classroom health curriculum into the school environment and the community. Schools can help students learn about the many factors that contribute to food choices, including advertising, media, friends and family. The more students are aware of these influences the better prepared they will be to make healthy choices.

Part B:
Physical Activity

Physical Activity: The Issue

Physical Activity is a School Issue

- Students who participate in school sports are less likely to drop out of school and tend to have higher educational aspirations.²²
- Increased participation in physical education is associated with improved classroom behaviour, as well as increased enthusiasm toward school and school work.²³
- Physical activity is associated with improved behaviour and cognitive functioning among youth with attention-deficit disorders and for youth with problems controlling impulsive actions.²⁴

Physical Activity is a Student Issue

- Over half of Canada's youth are physically inactive; 79% of youth are not active enough for optimal growth and development.²⁵
- 91% of children and youth aged 5 to 19 do not accumulate the 16,500 daily steps associated with Canada's fitness guidelines.²⁶
- Physical activity strengthens the heart, bones and muscles, improves fitness and can help achieve a healthy body weight.²⁷
- Physical activity is associated with increased self-esteem and decreased depression and anxiety.²²

Children today spend 40% less time being physically active than they did 15 years ago.

"If the trend isn't reversed, today's children could become the first generation that dies at a younger age than their parents."

(Dr. Rick Bell, Physical Health & Education Canada)

Physical Activity is a Community Issue

- Behaviours started in childhood and adolescence tend to carry over to adulthood; 56% of Canadian adults 20 years and older are considered physically inactive.²⁸
- Physical inactivity is associated with an increased risk of type 2 diabetes, obesity, coronary heart disease, cancer and osteoporosis, which can lead to decreased quality of life and premature death.²⁹
- In 2001, the economic burden of physical inactivity in Canada was estimated at \$5.3 billion. This represented 2.6% of all health care costs in Canada that year.³⁰

Schools Can Make a Difference...

Effective action to increase youth physical activity will promote healthy lifestyles. Schools, in partnership with municipal, health and community agencies and businesses, can work together to achieve common goals for physical activity. To help BC students achieve their best, the Ministry of Education has announced the introduction of Daily Physical Activity (DPA) for all schools and students in BC. Effective September 2008, all students from K to 12 are required to engage in 30 minutes of physical activity per day. Physical activity may consist of either instructional or non-instructional activities. DPA resources, early leader school highlights and physical activity trackers are available online at www.bced.gov.bc.ca/dpa.

Physical Activity Levels

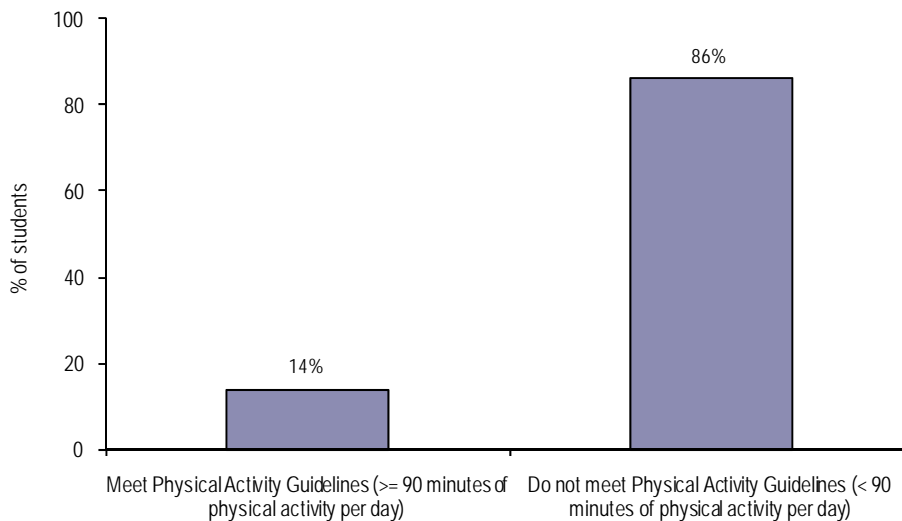
Levels of activity for youth in Canada are low. In fact, only 49% of Canadian youth are physically active, and according to international guidelines, just 21% are considered to be active enough to meet recommendations for optimal growth and development.²⁵

Canada's Physical Activity Guide for Youth (aged 10-14) recommends that youth should increase their physical activities until they reach 90 minutes per day. They also recommend reducing "non-active" time spent on TV, video, computer games in the same amount. For a copy of the guide see: www.paguide.com

Health Assessment Results

Based on student reports, 14% of students were physically active for at least 90 minutes every day of the previous week.

Percent of Students who Meet Canada's Physical Activity Guidelines



Please use caution in assessing these results; our testing of the questionnaire indicates that students tend to over-estimate their time spent being physically active.

For example, time spent waiting in line for a ski lift or at lights to cross a street may be counted as active time on questionnaires.

Schools Can Make a Difference...

Schools can help to increase the number of students who are physically active and who meet the activity guidelines for optimal growth and development by providing opportunities for physical activity at school, beyond physical education class, and by encouraging students to be active outside of school. For a resource guide that teachers can use to lead discussions about the importance of physical activity to achieving health benefits go to: www.phac-aspc.gc.ca/pau-uap/paguide/child_youth/resources.html.

When Students are Active

There are various times and ways that students can be physically active. We asked students questions about the different opportunities they have for physical activity – while going to school, at school, and outside of school.

We asked students about how they usually get to and from school each day.

- 32% of students use active transportation modes, such as cycling, walking, running or skateboarding,
- 38% of students use inactive modes, such as getting a ride or taking a bus, and
- 29% of students use a combination of active and inactive modes of transport.

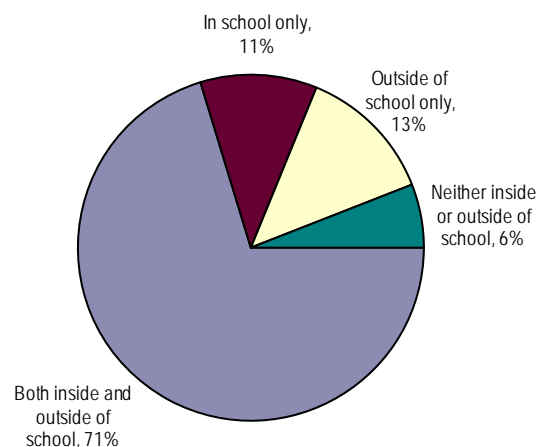
Students were also asked whether they had a chance to be physically active in other classes besides physical education.

- 36% said they did not have a chance to be active in other classes.
- 60% said they were physically active in “*some other classes*”.
- 4% said they had opportunities to be active in “*all other classes*”

Extracurricular activities, both those offered at school and outside of school, are important opportunities for physical activity.

This graph compares the percentage of students who participate in physical activity only in school, only outside of school, both inside and outside of school, and neither. The results show that 71% of students participate in physical activity both in and out of school; this illustrates the importance of school physical activity programs for students. However, 11% of students participate in physical activity in school only and 6% do not participate in physical activity at either time, and could benefit from school programs.

Participation in Extracurricular Activity



Schools Can Make a Difference...

Remind students that **active transportation** - biking or walking to school - can help them to achieve their daily physical activity requirements, and is also environmentally friendly. Schools can encourage active transportation by providing a safe bike lock-up area for students and providing secure areas where students can leave equipment (e.g. in-line skates, skateboards, helmets). **Increasing active time in physical education classes** is a good way for schools to increase student activity levels. One way to increase active time is using small groups to decrease wait times during activities. **Physical activity should not be forced or taken away as a form of punishment**, since this deters youth from participating and getting the health benefit from activity.³¹ In BC, the Province’s Walking School Bus and Bicycle Train Program offer resources and tools to support students in engaging in active transportation to and from school. See www.hastebc.org/walking-school-busbicycletrain.

Physical Activity at School

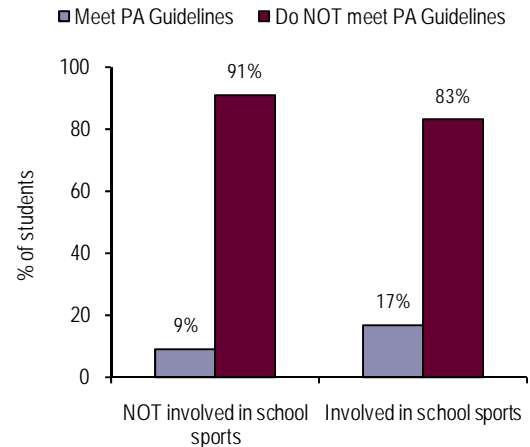
We asked students about their involvement in intramural/ house league sports, school team sports, and “other physical activities” at school (such as playing in the gym or outside). The results show:

- 63% participate in school-organized intramurals/house league sports
- 56% participate in school team sports
- 62% reported participating in “other physical activities” at school

Overall, 72% of students participated in at least one school sport. As the graph to the right shows, students who participate in school sports are more likely to be active.

The majority of grade 6 students report having 3 physical education classes in the last school week and being active for between 31 and 45 minutes of their physical education classes.

Student Physical Activity When Involved in School-Organized Activities



We also asked students what they thought about the number of sports offered at their school:

- 22% said there are too few sports offered
- 52% said the number of sports offered is just right
- 23% said it did not matter to them

Schools Can Make a Difference...

School-sponsored sports/clubs offer a great way for getting more students involved in physical activities. Students who are involved in school sports or clubs are more likely to continue being physically active throughout their adulthood.³² Participation also has social benefits; it offers opportunities to meet new friends and builds camaraderie amongst students, especially if teams are co-ed or represent multiple grades. Focus on broadening **participation** by offering a balance of both competitive and non-competitive opportunities in a **variety** of activities, including individual activities such as dance and walking clubs, as well as team activities. Community groups/experts may be willing to provide a tailored program for students at the school, based on their interests.

Intramural activities are a great way to increase participation, since everyone at school is encouraged to participate and students can have fun taking part regardless of their athletic ability. Ways to increase quality and impact of intramurals include: providing regular evening/weekend intramural programs, including teacher or parent teams, or developing “super teams” where the students play together as a team in a variety of activities for the entire year.

Competitive teams can include more students by having practice squads, which can expand participation in team-based events and develop skilled players for subsequent years. Individual events, like track and field, can include everyone interested, or select students for meets based on performance, or by rotating team members.

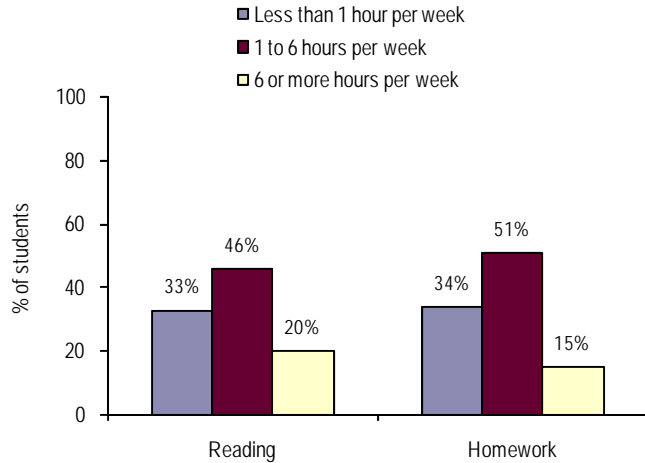
Creative programs that are **relevant and fun** will enhance student interest and participation. Schools can measure student satisfaction regarding physical activity initiatives to ensure ongoing engagement.

Other Activities

Sedentary activities include things such as watching television, playing video games (e.g. Xbox, Wii), using the computer, reading and homework. Some of these activities are counterproductive to physical activity, while others are beneficial. To promote overall health, students should decrease the total amount of time they are inactive while maintaining homework and reading time.

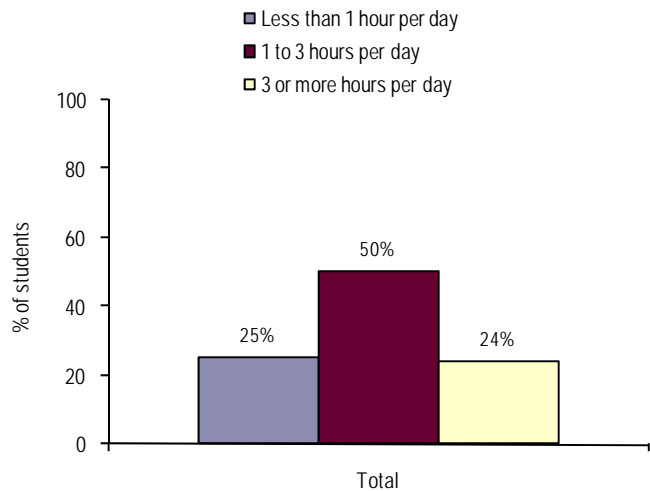
Leisure time reading offers well known benefits to students. We asked students how much time they spend reading (not including for school or work) and doing homework per week. Results are shown in the first graph.

Time Reading and Doing Homework per Week



Sedentary activities, such as watching television, are incompatible with healthier, more active choices for leisure time activities. In addition, watching a lot of television has been linked to increases in smoking uptake in youth.³³ Students should aim to decrease their “screen time”, i.e. time spent in front of the television, playing video games or on the internet.

Time on TV, Computer, and Phone per Day



The graph to the right shows the amount of time per day that students spend watching television/movies, surfing the internet, playing video/computer games, talking on the phone and instant messaging. The results show that 24% of students report typically spending more than 3 hours on these activities per day.

Schools Can Make a Difference...

Help students build awareness of the time they spend inactively by having them keep track of their activities for a period of time. Students can set goals for reducing inactive time and record progress toward their goal. Consider running a personal challenge that has students commit to being active in place of one half-hour TV program for one or two weeks. Offer a discussion in class so students can share their activities with peers to encourage and provide new ideas.

In BC, the ActNow BC World Healthy Living Challenge offers activity pledges for individuals to use. See www.actnowbc.ca/EN/world_healthy_living_challenge/do_you_accept_the_challenge? The BC Daily Physical Activity for Students booklets also contain activity pledges – see www.bced.gov.bc.ca/dpa.

Social Influences on Physical Activity

Peers and family members can influence student behaviours directly (peer pressure) or indirectly (modeling). We asked students a series of questions relating to peer and family physical activity.

All students were asked, “How many of your 5 closest friends are physically active?” Active youth are more likely to report that they have friends who are active compared to inactive students.

Students were asked about how often their parents were physically active. Generally, active youth are more likely to report that they have active parents.

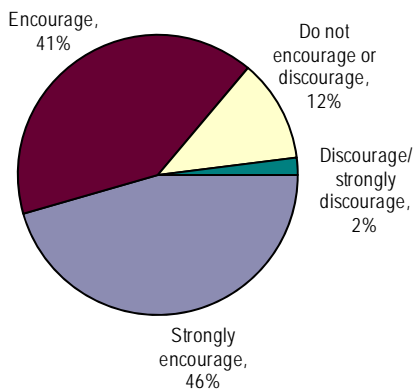
Results may not show inactive students reporting fewer active friends or inactive parents. This may indicate a need to correct perceptions about what “active” actually means. As mentioned on page 16, previous studies have found that students may over-report time spent being physically active.

How many of your 5 closest friends are physically active?	Percentage of Students Responding	
	Do not meet PA Guidelines	Meet PA Guidelines
0	2%	1%
1 or 2	17%	12%
3 or more	81%	87%

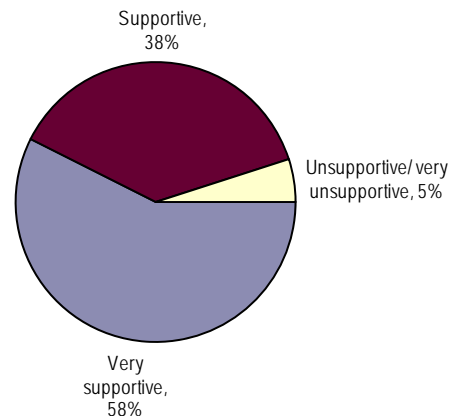
Student reports about parents' activity levels	Percentage of Students Responding	
	Do not meet PA Guidelines	Meet PA Guidelines
At least one parent is active	62%	75%
Parents are inactive	38%	25%

Students were asked how much their parents encouraged them and supported them to be physically active (i.e. driving them to sporting team games, buying equipment). The results show 85% of students had parents who both encouraged and supported them.

Parental Encouragement of Physical Activity



Parental Support for Physical Activity



Schools Can Make a Difference...

Within the BC curriculum, the Health and Career Education Prescribed Learning Outcomes (Health, Healthy Living) analyse factors (media, peers) that influence personal health decisions (including physical activity choices). The PLOs also include analyzing positive and negative peer influences on decision-making related to health.

Physical Activity & Healthy Body Weight

Physical activity and healthy eating are important determinants of a person's body weight. This section focuses primarily on physical activity; however, it is also important to consider healthy eating when interpreting these results. A healthy body weight is only one component of a well-balanced lifestyle.

One way of determining healthy body weight is using the body mass index (BMI).³⁴ BMI is a measure of a person's weight in comparison to their height.

According to the 2004 Canadian Community Health Survey, 26% of Canadian youth (ages 12-17) are considered overweight or obese using measured BMI. Being overweight during childhood can lead to increased illness and risk of chronic diseases such as heart disease, cancer and type-2 diabetes.³⁵ Overweight and obese youth are often stigmatized by peers and adults.³⁶ These youth may experience psychological stress, and have a poor body image, as well as poor self-esteem.³⁷ Although this report does not detail issues related to being underweight, it is also important to be conscious of the risks of excessive exercising, improper dieting and eating disorders such as anorexia and bulimia.

The Health Assessment of School Aged Children consisted of two parts:

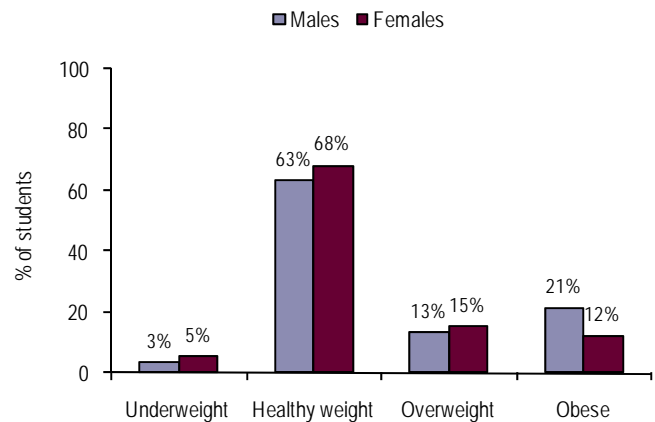
- a student questionnaire
- height and weight measurements

The first graph shows the results from the height and weight measurements.

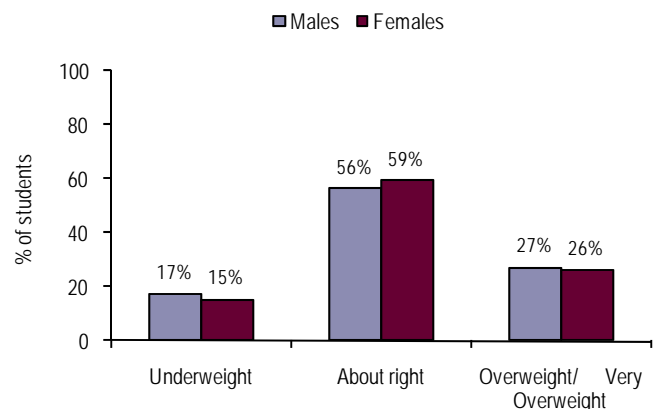
The results show 66% of all students fall within the recommended healthy weight category for their age (upper graph). Fifty-eight percent (58%) of all students feel their body weight is "about right" (lower graph).

It is interesting to note differences in the above graphs between BMI categories and the perceived weight categories, especially gender differences.

Students' BMI Categories
(calculation based on measured height and weight)



Students' Perceived Weight Categories



Schools Can Make a Difference...

A healthy living unit about nutrition and weight should include teaching students about proper weight and false perceptions. BC's Health and Career Education curriculum address physical changes/puberty (grades 4-6) and unrealistic body images (grades 7-8). Also, the Healthy Eating and Physical Activity Resource are a Kindergarten to Grade 10 grade-by-grade set of classroom-based lesson plans for the BC school system. www.bced.gov.bc.ca/health/healthy_eating/physical_activity_learning.htm Having students keep a food diary for a few days can help them become aware of what foods they are eating and where they can improve their dietary habits. The recently updated Canada's Food Guide and additional resources for promoting healthy eating can be found on Health Canada's website: www.hc-sc.gc.ca/fn-an/food-guide-aliment/index_e.html

Part C: Smoking

Smoking: The Issue

Smoking is a School Issue

- Students who take up smoking show a decrease in academic achievement and motivation.³⁸
- Smoking is associated with an increased risk of dropping out of high school; smoking is more predictive of dropping out than marijuana use or alcohol use.³⁹
- Starting smoking at an early age is predictive of a number of other risk behaviours; these include fighting, and drug use.⁴⁰

Smoking is a Student Issue

- 85 percent of current smokers start smoking by the age of 19.⁴¹
- The average age at which students smoke their first whole cigarette is 11.⁴²
- What starts as a bid for independence quickly becomes dependence on tobacco. Only 5% of students who smoke think that they will be smoking in 5 years; 5 years later, 80% of them smoke heavily.⁴³

Smoking is a Community Issue

- 22% of all deaths (or approximately 45,200 deaths) in Canada are attributable to smoking.^{44,45} Smoking causes 4 times as many deaths as car accidents, suicides, homicides, and AIDS combined.⁴⁶

Web Resources

Health Canada:
www.hc-sc.gc.ca/hl-vs/tobac-tabac/index_e.html

Lung Association:
www.lung.ca

Canadian Cancer Society:
www.cancer.ca

Physicians for a Smoke-Free Canada:
www.smoke-free.ca

Canadian Council for Tobacco Control:
www.cctc.ca

Quit Now:
www.quitnow.ca

Ministry of Health Services:
www.healthy.gov.bc.ca/tobacco

Schools Can Make a Difference...

School efforts linked with those of local health and community agencies can reduce problems related to youth smoking. Research has shown that successful efforts include education (coordinated curriculum), a supportive environment (e.g., clear, enforced rules about smoking, chances for youth engagement), services (e.g., cessation), and students who know people care.

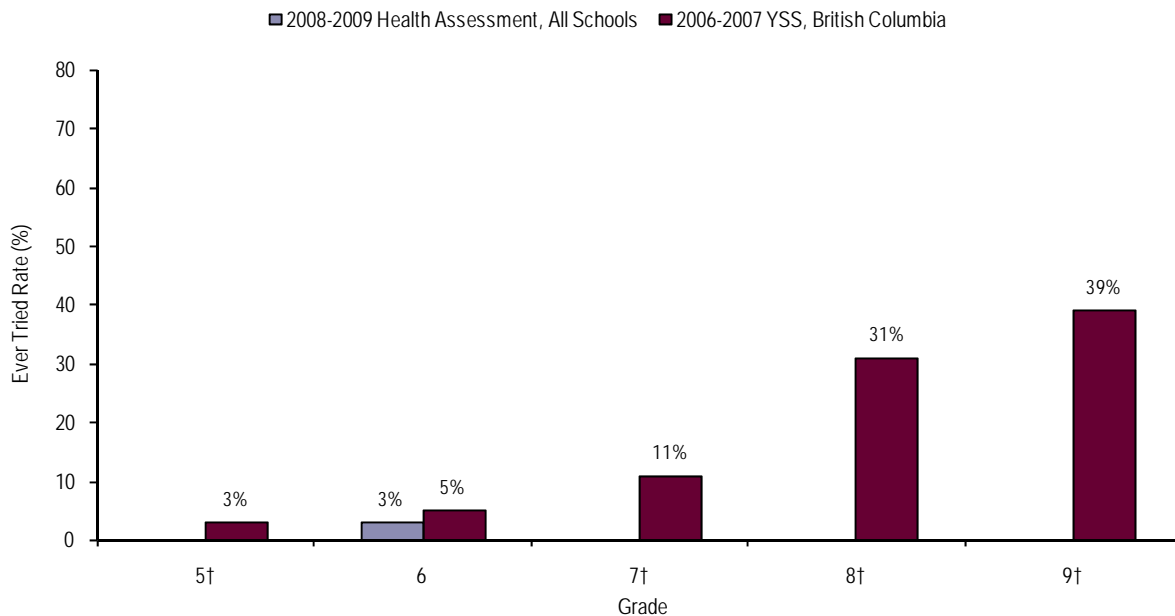
BC's Healthy School Branch released a special edition of the Healthy Schools Newsletter in April, 2008, regarding tobacco free schools. The newsletter includes strategies for implementing tobacco-free school grounds, policy, data on tobacco use among youth, and tobacco cessation resources. See www.bced.gov.bc.ca/health/hsnetwork/newsletter_apr08.pdf for details.

Smoking at All Schools

Students were asked a series of questions about their smoking behaviour. Few students report that they are smokers; however 3% of students surveyed report that they have ever tried smoking, even just a few puffs. Fewer students report having smoked a whole cigarette (1%).

To help you understand how the results compare to the rest of the province, the graph below compares results from the Health Assessment of School-Aged Children with provincial results for British Columbia from the 2006-07 Youth Smoking Survey (YSS).⁴⁷ The Youth Smoking Survey was first conducted by Health Canada in 1994 and repeated in 2002, 2004, 2006 and 2008.

Students Who Have “Ever Tried” Smoking



† 2006-2007 YSS BC data (These grades were not surveyed in the 2008-2009 Health Assessment)

Please note: So that you can see trends for the provincial sample, this graph includes other grades participating in the 2006-07 YSS, even though the Health Assessment included only grade 6 students.

Schools Can Make a Difference...

Early adolescence is a critical time for preventing smoking. Emerging evidence indicates that it is especially important to prevent or even delay smoking uptake in this age group as there are long-term health risks (e.g., lung cancer, breast cancer) associated with smoking during the time of physical maturation. Your school’s efforts to protect the future health of students can take at least two forms: (1) Equip students now with the necessary refusal skills and attitudes to stay smoke-free; (2) Provide an environment that helps students make the smoke-free choice.

Student Susceptibility to Smoking

There is a relatively small window in life when one is susceptible to becoming a smoker. Most established smokers start experimenting with cigarettes between the ages of 10 and 18.⁴⁸ Once one becomes dependent it can be very difficult to quit. Therefore, it is important to intervene before students become dependent.

Quick Facts

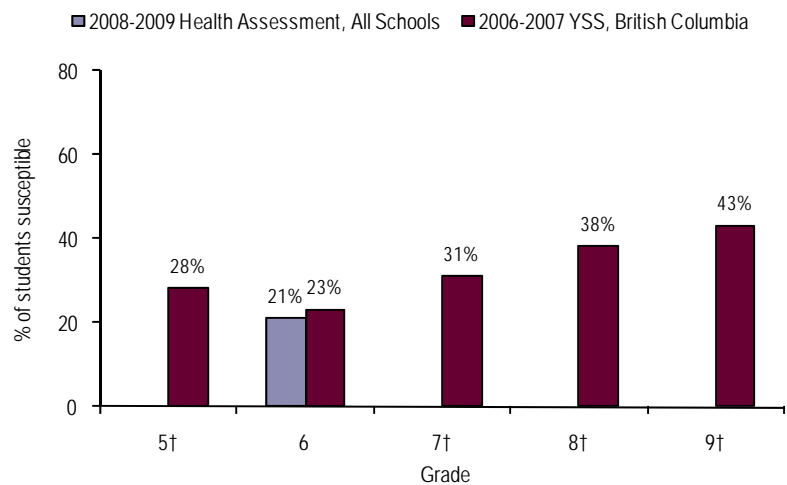
The younger one starts to smoke, the more likely one is to become strongly dependent on nicotine.⁴⁰

Students who feel strongly that they will not try smoking in the future and who feel they can resist peer pressure to smoke are less likely to begin smoking in the future.

We asked students who have never smoked two questions about their intentions to remain smoke-free, “Do you think in the future you might try smoking cigarettes?” and “At any time during the next year do you think that you will smoke a cigarette?” We also asked one question relating to their confidence in resisting peer pressure, “If one of your best friends were to offer you a cigarette, would you smoke it?” From their answers to these questions we determined that 21%

of the students who have never smoked a cigarette have low-confidence in their ability to remain smoke-free in the future, and are thus at high risk to begin smoking. The chart above displays British Columbia data from the 2006-2007 YSS and data from the Health Assessment Survey on the percentage of students deemed susceptible to smoking.

Susceptibility to Smoking of Students Who Have Never Smoked



† 2006-2007 YSS BC data (These grades were not surveyed in the 2008-2009 Health Assessment)

Schools Can Make a Difference...

Many experts agree there are stages to smoking uptake, including: (1) a preparation phase in which intentions and expectations regarding smoking shift, (2) early experimentation, (3) regular but non-daily smoking, and (4) established smoking. Students whose attitudes and beliefs predispose them to smoking may soon start to experiment, or may have already begun. Even when smoking rates are low, smoking control efforts should focus on preventing students from becoming susceptible, preventing susceptible students from experimenting, and encouraging experimenters and established smokers to quit.

bc.tobaccofacts is a school based prevention resource that offers lessons in tobacco prevention for students from kindergarten to grade 12. For more information go to:

www.tobaccofacts.org/teacher/index.html

Peer and Family Influences

Students take up smoking for a variety of reasons. Peers and family members exert a strong influence on youth smoking. These influences are sometimes direct (peer pressure) but more often indirect (modelling). We asked students a series of questions relating to peers and family.

All students were asked, “*How many of your closest friends smoke cigarettes?*” Overall, 5% of respondents reported having at least one friend who smokes. Students who have friends who smoke are the most susceptible to becoming smokers themselves.

Number of Friends who Smoke	Percent of Students
0	95%
1 or 2	4%
3 or more	1%

Students were asked, “*Do any of your parents, step-parents, or guardians smoke cigarettes?*” and “*Do any of your brothers or sisters smoke cigarettes?*” Students who have family members who smoke face a higher risk of becoming smokers themselves.

Family Members who Smoke	Percent of Students Responding “Yes”
Parents, step-parents, or guardians	28%
Sibling(s)	6%

Quick Facts

Even when parents themselves smoke, banning smoking in the home and speaking against smoking reduces the likelihood that youth will smoke.⁴⁹

Among all students, 77% said that their parents, step parents or guardians have talked to them about not smoking.

Talk About It Tips is a brochure for parents providing tips on talking to children about tobacco use. Parents can download the brochure at www.tobaccofacts.org/parents/talkaboutit.html or order a copy from Centre for Addiction Research BC (CARBC) at www.carbc.ca.

Schools Can Make a Difference...

Smoking often occurs in social situations among peers. Programs that help students to develop skills for resisting social influences can be helpful. A good program includes activities to: build self-esteem, train assertiveness, and teach students tactics to help them avoid using tobacco. Ideally, the activities will help students learn how to:

- change the subject;
- move away from the situation;
- ignore the person offering cigarettes; and
- develop and practice a number of refusal responses.⁵⁰

School Environment

The school environment plays an important role in helping students stay smoke-free. Research shows that school-level factors influence smoking rates independent of family, economic and community factors.⁵¹ Schools are uniquely positioned to influence the health and well-being of students, ideally in partnership with home and community, but even independently.

One of the most obvious ways schools can support students to stay smoke-free is through tobacco control education. Considerable research has been done to determine the elements of successful smoking prevention curricula. Compare the curriculum and teaching time devoted to smoking prevention in your school with the elements in the box below and consider ways to improve or maintain your programs.

Quick Facts

Youth who participate in higher levels of physical activity are less likely to smoke, or smoke fewer cigarettes. Team sport participation seems to be especially associated with decreased likelihood of smoking. Some schools have students sign contracts to not smoke while they are representing the school in a sporting event. Increasingly, sports organizations and athletic organizations are taking steps to implement tobacco-free sports policies and initiatives.

School-based smoking prevention programs should:

- Include at least 10 sessions devoted specifically to prevention of tobacco use
- Be delivered in at least two school years (sessions may be blocked or distributed over the year)
- Begin immediately before the age when uptake of tobacco is highest, usually just before the transition to middle or secondary school
- Focus on short-term health and social consequences (e.g., shortness of breath and smelly clothes)
- Include training in refusal skills, including modelling and the practice of resistance skills
- Include information about the social influences on tobacco use, especially peer, parent and media, and demonstrate that smoking is not normal for adolescents
- Involve students in the delivery of the program (teacher-led with student involvement works best)
- Include adequate teacher training and a high level of teacher commitment to the program

Source: Health Canada and the Canadian Cancer Society -- efficacy criteria used in the assessment of smoking prevention programs.⁵²

Part D: Other Findings

Student Perceptions

Student Perceptions: Autonomy, Relatedness and Competency

Well-being is fostered in **environments and relationships** that address important psychological needs. These include the interrelated needs for autonomy, relatedness, and competency. There is considerable evidence that satisfaction of all three needs is associated with emotional well-being or **resilience**, as well as participation in healthy lifestyle choices and actions during middle childhood and adolescence. In contrast, when these needs are not met, youth may be at higher risk for experiencing difficulties related to their emotional, social, and physical growth.

Autonomy refers to our need for personal freedom to make choices or decisions that affect our lives. When this need is satisfied in conjunction with other need areas, freedom and choice are expressed in ways in which respect is demonstrated for self and others.

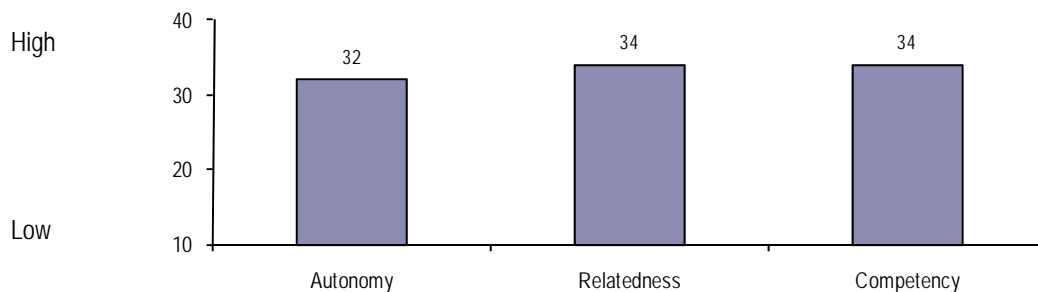
Relatedness refers to our need for connection to and closeness with family, peers, and other significant individuals. Fulfillment of this need is met through interaction with others, our membership in groups, and through the support and encouragement we receive from others.

Competency refers to our need for recognizing and using our personal gifts and strengths in achieving personal goals. Fulfillment of this need provides individuals with a sense of personal achievement and accomplishment.

Health Assessment Results

In the survey we asked students questions about each of these need areas. The following graph provides the results from your school.

Please note that the following results are not percentages, but based on a scale from 10 to 40. A score of 40 indicates “Really True for Me” when students were asked questions related to fulfillment of needs, while a score of 10 indicates “Really False for Me”.



Schools Can Make a Difference...

Schools can contribute to student well-being by:

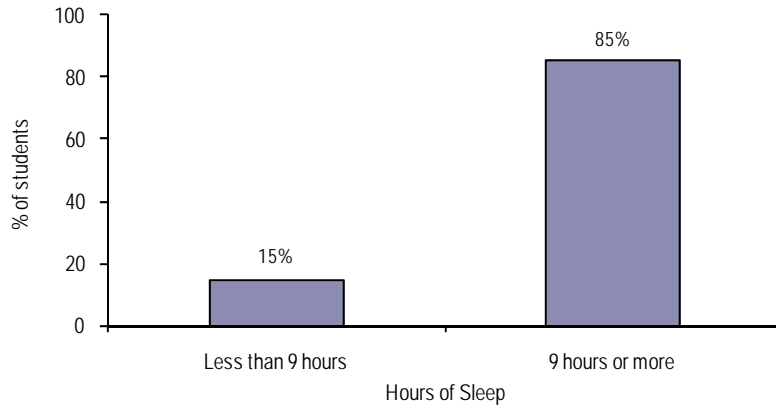
- empowering students to collaborate with their peers in development of their own solutions for specific problems (youth engagement)
- providing opportunities for students to identify and use their strengths in academic work or projects
- encouraging students to be involved in a wide range of activities that include emphasis on their interests and preferences
- emphasizing fairness and social inclusion in small group and school-wide learning activities.
- reaching out and involving students or specific groups who do not feel part of the school
- focusing on developing positive working relationships with parents and members of the community

Sleep

Most children need at least 9 hours of restful sleep each night. Inadequate sleep for adolescents can interfere with their ability to learn in school and perform well in other activities.⁵³

We asked students what time they usually went to bed and woke up on school days. Overall, 85% of students reported they usually get 9 or more hours of sleep each night.

Usual Number of Hours of Sleep on School Days



School Connectedness

In addition to programs and education, a sense of connection to the school and school expectations can support students in making healthy choices. Students who feel an attachment to their school, and who consider their teachers to be supportive, are less likely to smoke or engage in other unhealthy or risky behaviours.^{54,55} Activities to build a positive school community are helpful in reducing and preventing smoking and increasing physical activity.

Here is what students said about their school environment:

<i>How strongly do you agree or disagree with the following statements?</i>	Percentage of Students Responding “Agree” or “Strongly Agree”
I feel close to people at my school.	83%
I feel I am part of my school.	87%
I am happy to be at my school.	85%
I feel the teachers at my school treat me fairly.	89%
I feel safe in my school.	91%

Schools Can Make a Difference...

Ways in which your school can create a sense of school connectedness include supporting extracurricular activities, providing opportunities for student involvement in peer-led activities and buddy programs, advocating a positive classroom atmosphere, and encouraging teacher mentorship. Other suggestions include: making school expectations clear to students, parents and teachers; acknowledging and celebrating positive student behaviours; encouraging and supporting students to ask for help when experiencing problems then taking action to solve problems reported by students, parents and teachers; and, involving students in leadership and decision-making opportunities.

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