A Strategy for Combatting Childhood Obesity and Physical Inactivity in British Columbia

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November 29, 2006

To the Honourable
Legislative Assembly of the
Province of British Columbia

Honourable Members:

I have the honour to present herewith the First Report of the Select Standing Committee on Health, titled *A Strategy for Combatting Childhood Obesity and Physical Inactivity in British Columbia*.

The First Report covers the work of the Committee from November 24, 2005 to November 30, 2006.

Respectfully submitted on behalf of the Committee,

Ralph Sultan, MLA
Chair

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Composition of the Committee

Members

Chair:
Ralph Sultan, MLA
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Deputy Chair:
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Saanich South

Katrine Conroy, MLA
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Clerk to the Committee

Kate Ryan-Lloyd, Clerk Assistant and Committee Clerk

Committee Researchers

Jonathan Fershau, Research Analyst

Mary Storzer, Committee Researcher

Geneviève Murray, Committee Researcher

Simon Gray-Schleihauf, Committee Researcher

Media Consultant to the Committee

Carla S. Shore, C-Shore Communications Inc.

Terms of Reference

On February 20, 2006, the Legislative Assembly agreed that the Select Standing Committee on Health be empowered to examine, inquire into and make recommendations with respect to finding effective strategies to change behaviour and encourage children and youth to adopt lifelong health habits that will improve their health and curb the growing rate of obesity to achieve the great goal of leading the way in North America in healthy living and physical fitness.

The Committee is also empowered to conduct consultations and to:

1. Report on recommendations from the Select Standing Committee on Health Report from 2004 titled *The Path to Health and Wellness: Making British Columbians Healthier by 2010*.
2. Conduct research into other successful childhood health and wellness promotion campaigns in other jurisdictions to analyze their potential effectiveness in B.C.
3. Undertake discussions on how to promote childhood health and wellness including the appropriate use of incentives and disincentives to help influence behaviour, particularly as it relates to healthy nutrition and physical activity.
4. Undertake discussions with experts and, if necessary, undertake research into the factors contributing to unhealthy eating and physical inactivity in youth of today.

In addition to the powers previously conferred upon the Select Standing Committee on Health, the Committee shall be empowered:

(a) to appoint of their number, one or more subcommittees and to refer such subcommittees any of the matters referred to the Committee;

(b) to sit during a period in which the House is adjourned and during any sitting of the House;

(c) to adjourn from place to place as may be convenient; and

(d) to retain such personnel as required to assist the Committee,

and shall report to the House no later than November 30, 2006, to deposit the original of its reports with the Clerk of the Legislative Assembly during a period of adjournment and upon resumption of the sittings of the House, the Chair shall present all reports to the Legislative Assembly.

Dedication

This report is dedicated to the children and youth of British Columbia.

Tatyanna, Age 11, Port Alberni

Introduction

Childhood obesity is a problem our province can no longer afford to ignore. The health costs to our children and the financial costs to our health system are reaching a crisis point and all leaders need to act. The problem of poor eating habits and physical inactivity in children requires bold leadership and strong action to turn the tide.

This report results from comprehensive research, extensive consultations, and thorough consideration by ten legislators who have worked intensively for almost a year to better understand how to most effectively combat the problem of childhood obesity. To demonize eating is not an option, and we cannot command children to embrace sports or go for a long walk every day.

In its need to address this issue, British Columbia is hardly unique; the problem is global. Furthermore, we appreciate that it took society decades to reach this crisis point, and solutions are hardly going to be implemented overnight.

Since the middle of the last century, we have been gearing down our physical activity, driving more, and designing communities around the convenience of a vehicle. Busy lifestyles have encouraged the development of convenience in the food industry, where more of what we eat is processed, packaged, and consumed "on the go." These things must change to solve the problem.

Some may say, to paraphrase a former prime minister, that "the state has no place in the kitchens of British Columbia." They may criticize any attempt to tell people how to travel to work or school. But in the last century no one thought government could regulate away smoking. Today, smoking has become, through concerted social marketing campaigns, taxes and regulation, essentially taboo. It took bold visionaries to launch those campaigns to change societal attitudes, but social mores were indeed changed. So too can current attitudes around healthy eating and physical activity.

As a leader in health, wellness, and physical fitness, we believe British Columbia should now take up the visionary torch with respect to childhood obesity. With this report, we hope to lead the province on a path that reverses the alarming trend of poor eating and inactivity among our children and youth. We can show the way, and society, over time, can be changed – starting with our children.

Thea, Age 10, Parksville

One of many excellent presentations by students at Carihi Secondary School, Campbell River, B.C.

Summary of Consultation Process

On November 24, 2005, the Legislative Assembly of British Columbia approved a motion instructing the Select Standing Committee on Health (the Committee or the Health Committee) to recommend effective strategies to change behaviour and encourage children and youth to adopt lifelong health habits that will improve their health and curb the growing rate of obesity in order to achieve the great goal of leading the way in North America in healthy living and physical fitness. In addition, the Committee was instructed to conduct consultations with both experts in the field of childhood obesity and the public; conduct research on other successful childhood health and wellness campaigns; undertake discussions on how to promote childhood health and wellness through the use of incentives and disincentives to influence behaviour; and undertake research into the factors contributing to unhealthy eating and physical inactivity in the youth of today.

Briefings

In carrying out its mandate, the Committee conducted eight public hearings from late April to early June listening to physicians, academics, health and wellness practitioners, representatives from various ministries, officials from the Office of the Provincial Health Officer, and experts in the field of social marketing. On May 4, 2006, then deputy health minister, Dr. Penny Ballem, provided the Committee with an update on the Ministry of Health's response to the Select Standing Committee on Health's 2004 report, *The Path to Health and Wellness: Making British Columbians Healthier by 2010*. The Committee received an additional update on the status of the Committee's 2004 report from the new deputy minister of health, Gordon Macatee, on November 15, 2006. A summary of the information prepared by the Ministry of Health is provided in Appendix A.

The Committee also heard from officials representing associations such as the Concerned Children's Advertisers, Food and Consumer Products of Canada, Refreshments Canada, and the Canadian Food and Restaurant Association.

Youth Consultations

A student panel speaks to the Committee at North Peace Secondary School, Fort St. John, B.C.

For the first time in the history of a parliamentary committee in British Columbia, the Health Committee made special efforts to receive input and submissions from British Columbia's children and youth. The Committee felt that it was important to hear from those who would be directly impacted by any policy decisions recommended by the Committee — kids between the ages of five and 18.

The Committee used five distinct methods of advertising to reach B.C.'s children and youth. These included the creation of a youth-friendly website, *myhealthyspace.ca*; an interactive web log, or blog featuring commentary from various committee members on a variety of subjects pertaining to childhood obesity; and a confidential survey in which children and their parents could provide responses to a series of questions. To reach out to younger students, the Committee also sponsored a drawing contest for elementary school children,

with the winning submissions appearing in this report. Most importantly, the Committee held public hearings to hear directly from B.C.'s youth.

> *"Everyone had a different opinion on youth and health, but it all linked back to one conclusion — that we're not all very healthy."* N. Kupchanko, Fort St. John

The Committee's objectives in conducting youth-focused consultations were threefold. First, committee members felt that it was imperative to hear directly from youth on *their* opinions on the causes of — and solutions to — childhood obesity. It was the Committee's opinion that legislators should engage directly with kids on issues that affected them — their health, their ability to participate in physical activity, and, increasingly, their own wallets and pocketbooks — to enhance the likelihood of successful buy-in to any resulting policy changes. We feel that the time spent in consultation with students has given us a better understanding of what may or may not work in terms of combatting childhood obesity.

Second, the Committee sensed a need to inform youth about the issues relating to childhood obesity. In developing *myhealthyspace.ca*, the Committee sought to raise awareness of childhood obesity's causes and to provide a platform for youth to offer their solutions to this serious health problem.

Third, in reaching out to students, the Committee provided students a glimpse into the workings of parliamentary committees and elected officials. In many cases, it was the students' first experience with speaking "on the record" in a submission to parliamentarians. Members were very impressed by the poise, creativity and confidence shown by the student presenters. It is the Committee's hope that these students will continue to be involved in public issues as a result of this experience.

myhealthyspace.ca

In an effort to reach out to B.C.'s kids, the Committee designed an interactive website under the banner *myhealthyspace.ca*. The Committee adopted a consultation medium familiar to B.C.'s youth: the Internet. Hosted on the Legislative Assembly's own server, *myhealthyspace.ca* was designed to encourage kids to participate in the public consultation process without having to face the daunting task of preparing a formal written or oral submission. In addition, the website provided easy-to-read reviews of the major issues surrounding childhood obesity in British Columbia. Over the course of the Committee's public consultation process (September 11 to October 31, 2006),

myhealthyspace.ca received close to 2,400 unique visits from Canada, United States, Australia, Ireland, Sweden, Switzerland and Belgium.

Unlike other parliamentary committees' websites, *myhealthyspace.ca* was styled in a youthful, playful manner. The website featured an amusing video cartoon asking B.C.'s youth to participate in the process; an interactive quiz designed to get kids thinking about healthy eating and exercise; and a confidential survey that permitted B.C.'s youth to provide formal feedback on what the provincial government and other organizations can do to help B.C.'s kids choose both healthier food options and participate in daily physical activity. In addition, the website featured details on the Committee's drawing contest for younger students, as well as a referral device allowing users to share the website with their friends.

Blogging with the Big Guy

Another component of the Health Committee's website was a blog promoting dialogue between the Committee and the youth of British Columbia. Over the course of two months, the "Big Guy" — committee chair Ralph Sultan, MLA — and guest "Big Guys and Gals" — committee members from both sides of the House — posted brief synopses of issues heard by the Committee during our expert witness hearings. Students were encouraged to think about the topics listed and provide anonymous comments to the blog. In total, "the Big Guy and guests" posted 25 different submissions on aspects of childhood obesity and the consultation process, with hundreds of comments received.

Survey on Childhood Obesity

In conjunction with the youth consultation process, the Committee also designed a survey asking the youth of British Columbia's opinions on a variety of topics pertaining to healthy eating and physical activity. The ten questions asked respondents to provide information on what their schools, parents, governments, and food and beverage companies can do to encourage a healthier lifestyle in youth. In total, the Committee received 232 responses to its on-line survey.

Drawing contest

To reach younger British Columbians (kindergarten to grade seven), the Committee also commissioned a drawing contest aimed at encouraging B.C.'s kids to think about childhood obesity. Our grand prize winner, Daniel Minney of Delta, has his artistic submission included as this report's cover. Other artistic submissions received are highlighted throughout the report.

In total, we received close to 400 artistic submissions from students, including submissions from smaller communities (Atlin, D'Arcy, Procter, and Summerland), and larger cities (Vancouver, Victoria, Richmond, and Cranbrook). The Committee would like to thank the teachers and parents who encouraged children to take part in this process.

Youth-Based Public Hearings and School Visits

Another successful innovation launched by the Committee was to hold public hearings in B.C.'s secondary schools.

We launched our youth consultation process at Hollyburn Elementary School in West Vancouver, followed by a visit to Reynolds Senior Secondary in Saanich — the first high school in Greater Victoria to include healthier food selections in its vending machines. On October 17 and 18, 2006, the Committee held public hearings at Sir Charles Tupper (Vancouver), Carihi (Campbell River), North Peace (Fort St. John) and Williams Lake secondary schools — all of them youth-oriented public hearings.

At each school, the Committee listened as students made presentations on topics such as physical fitness in schools, vending machine policies, the root causes of physical inactivity at home, and peer and societal pressures. Many of the presenters also prepared multi-media presentations, ranging from detailed posters, survey results on healthy lifestyles, PowerPoint presentations as well as a documentary-style video. After the student presentations, the Members engaged both the presenters and the audience in a question and answer period on various topics.

In every school, committee members were impressed by the quality of presentations made by all of the students. We would again like to thank all students, teachers and principals for the time and effort they put into the student presentations.

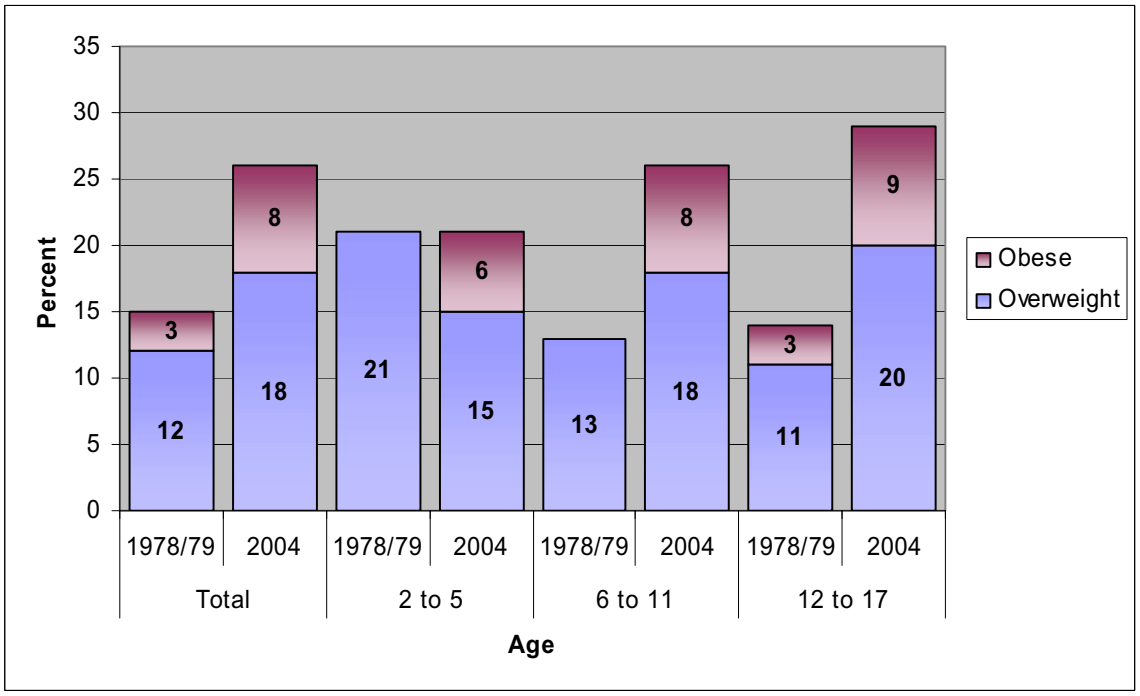
Kendall, Age 11, Cranbrook

Childhood Overweight and Obesity in British Columbia

The Scale of the Problem

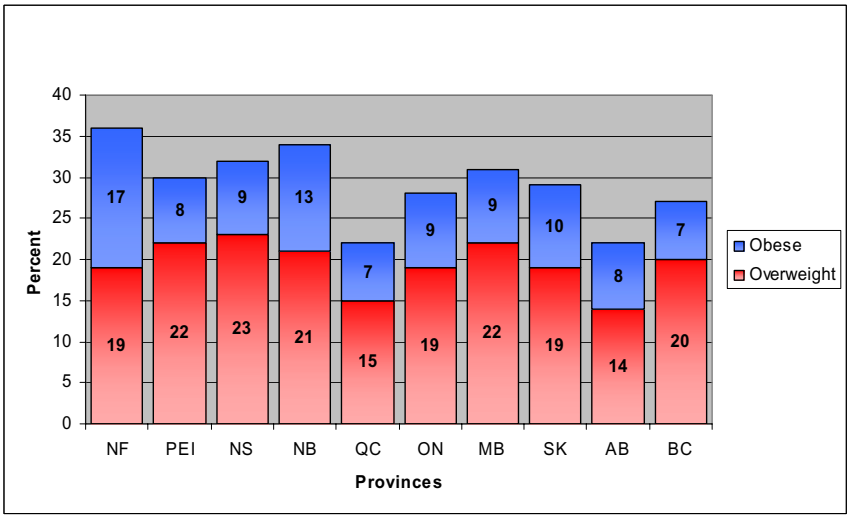
Childhood overweight and obesity in British Columbia is an issue nearing crisis proportions. Over the last 25 years, the percentage of Canadian children measured as either overweight or obese has risen steadily and now approaches 30 percent of teen-aged boys and girls.[1] As Figure 1 shows, a previously unheard of six percent of Canadian children under the age of six are now classified as obese. Furthermore, the numbers of children who are either overweight or obese between the ages 6-to-11 and 12-to-17 have more than doubled over the last 25 years.

Figure 1: Overweight and obesity rates, by age group, household population aged 2 to 17, Canada (excluding territories), 1978/79 and 2004



British Columbia's children and youth have faired somewhat better than their Canadian counterparts in terms of rates childhood overweight and obesity within the population. As indicated in Figure 2, B.C. has the lowest incidence of childhood obesity in the county. However, British Columbia is in the middle of the pack when assessing the levels of overweight children in Canada. Based on this data, B.C.'s children are not (relatively) obese, but they are (relatively) overweight.

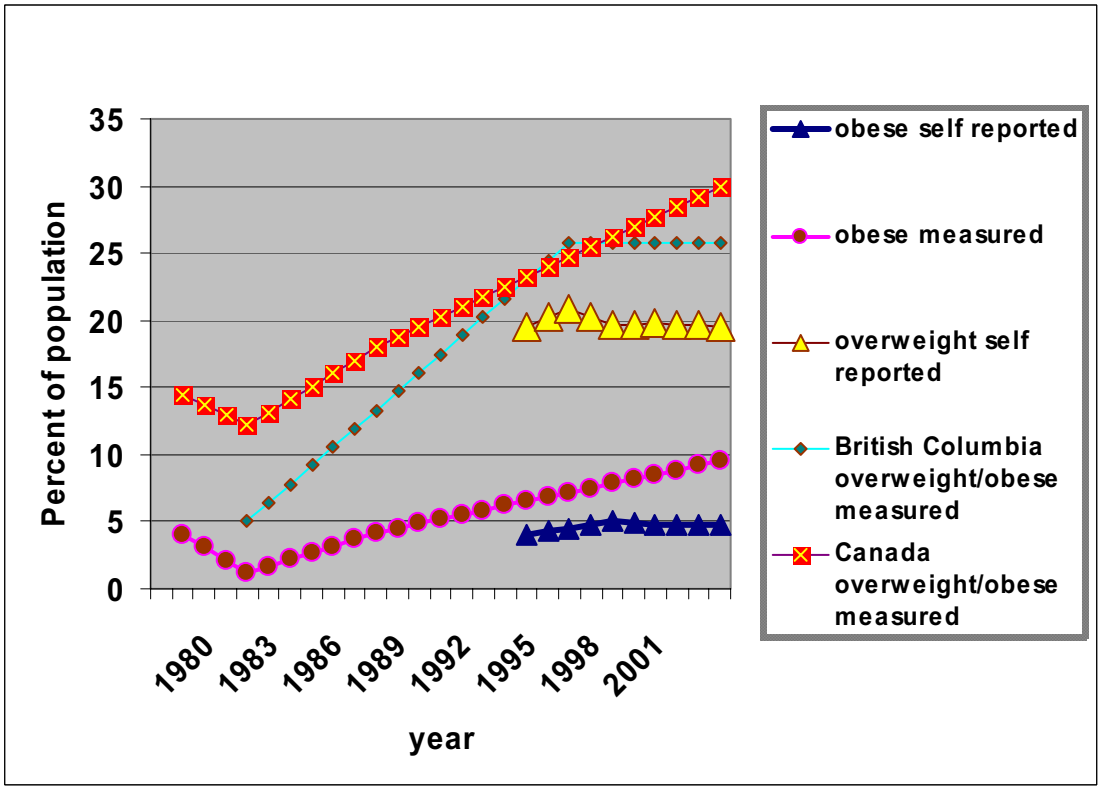
Figure 2: Overweight and obesity rates, by province, household population aged 2 to 17, Canada (excluding territories), 2004



What is also particularly disturbing is the discrepency between measured childhood overweight and obesity rates and the rates that are self-reported. As Figure 3 demonstrates, there exists a clear gap between the levels of overweight and obese reported by parents, and what is actually observed in clinical studies. This difference highlights the importance of raising the profile of childhood obesity in British Columbia. If we continue to deny to ourselves the true extent of the childhood obesity problem, our children will face with serious health consequences in the future.

Figure 3: Measured and Self-Reported Overweight and Obesity Rates, Canada and British Columbia, 1978-2003 (Observations between turning points linearly interpolated)

Source: Provincial Health Services Authority



What is the cost of obesity and inactivity?

In Appendix B, we highlight several recent surveys that estimate the costs of overweight and obesity in British Columbia. In summary, there are three sources of cost pressures.

First, there is the *direct cost* to the health system of treating the myriad of medical ills brought on by obesity and inactivity, ranging from cardiovascular disease to diabetes that may potentially lead to blindness and amputation.

Second, there is the *indirect cost* of premature death, as a result of these medical illnesses and shortened longevity, which has a second tier of economic cost through the loss of future economic output.

If one adds together the combination of societal costs of reduced well being, one can derive the broader societal cost through reductions in well-being not measured in the economic accounts.

While our survey shows a range of estimates, depending on methodology and scope, it appears that the direct and indirect cost of obesity and inactivity combined in British Columbia is likely in the range of one billion dollars a year. If one adds together the combination of societal costs of reduced productivity with increased susceptibility to illness and disease, one can derive total cost estimates two or three times larger in magnitude.

And the situation may only get worse. According to the American Centers for Disease Control and Prevention, overweight school-aged children are 50 percent more likely to become obese adults, with overweight adolescents 70 to 80 percent more likely to become overweight adults. As obese adults, today's overweight children will display much higher rates of hypertension, diabetes, heart disease, renal failure, amputations, blindness, cancer, and mental health problems. It is not surprising that unless immediate and strategic actions are taken, British Columbia's kids, the Committee was told, may be the first generation to have a shorter life span than their parents.

The costs of obesity and inactivity to the health system, to the economy, and to societal well-being, are truly significant.

Hayley, Age 6, Abbotsford

Tracking Childhood Obesity in British Columbia

Today there's actually very little information available on the general health of B.C.'s school children. When you look at the data we have, it's often based on small samples or on groupings of children and/or schools. When planning programs designed to change behaviour, you must have a means of evaluating how you are doing. You must also be able to conduct comparisons amongst different regions or communities. We do not have this information now, and if we are going to effectively plan and evaluate how our initiatives are doing, we do need this information. (British Columbia Medical Association)

A key message that the Committee heard from the province's medical practitioners was the need for the creation of a child health registry. Over the course of two 13-year cycles of kindergarten to grade 12 students, the rates of measured childhood overweight or obese have more than quadrupled. Yet, over the same period of time, the amount of data collected showing this disturbing trend is limited at best. Indeed, the current dataset used to calculate the rates of obesity in B.C.'s children is from Statistics Canada's 2004 Canadian Community Health Survey, which collected data in 2002. Updated information on this dataset will likely not even begin to be collected until 2007, with new survey results not released until 2009 or 2010. To underscore how important it is to collect this data in a timely manner, consider that over this time frame, an entire generation of students from grades four to 12 will have gone through the education system.

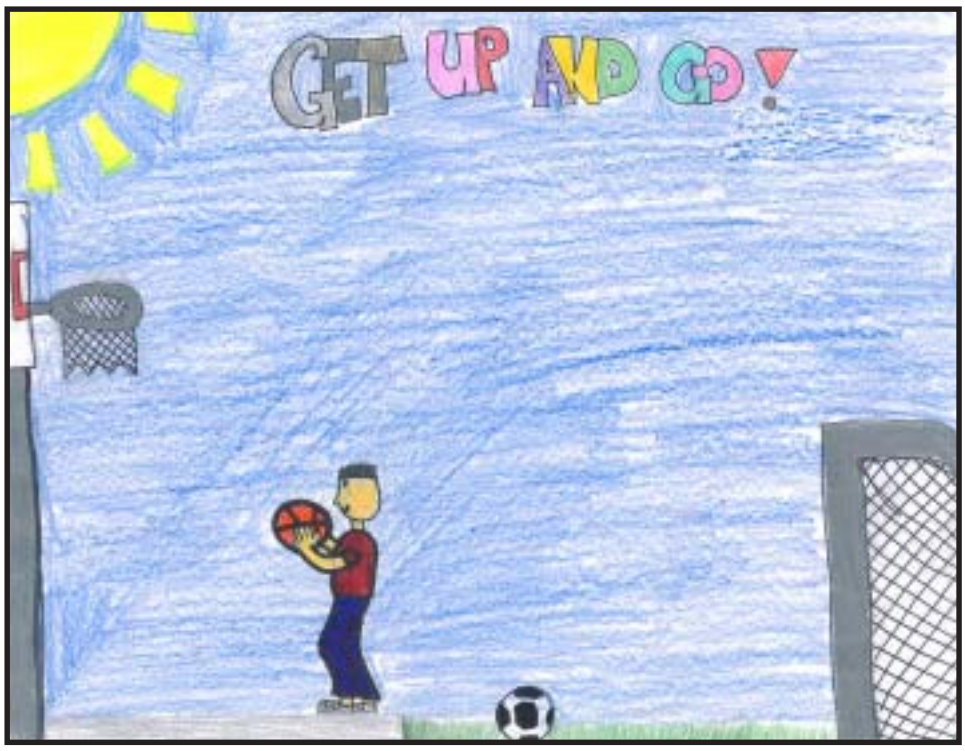
The Committee heard a proposal from the British Columbia Medical Association for a basic child health database that would provide for the collection of basic health data twice a year from school-aged children. The objective of the registry is to collect basic health information (height, weight, and waist-to-hip ratio) from all children enrolled in kindergarten to grade 12 in order to track student physical fitness and health levels across the province. The creation of such a database would allow researchers to track the effectiveness of specific programs and compare health outcomes to other socio-economic statistical databases. Information provided to the registry would require the informed consent of parents with the data collected remaining anonymous.

While the proposal we heard for data collection was strictly related to overweight and obesity levels in B.C.'s schools, the Committee believes that it is also important to collect information on students' levels of physical activity. We note that to some extent, small scale surveys on levels of physical activity are currently being conducted during the ActionSchools! BC program evaluation. However, the sample size used in these studies is still quite small. The Committee believes that continual, large scale monitoring of the rates of physical inactivity will paint a better picture on how B.C. is doing in reducing the levels of childhood obesity and physical inactivity.

It should be noted that our proposed child health registry for British Columbia does not involve parental notification of results. However, some jurisdictions go further than the measures proposed here — requiring notification of a child's body mass index results to parents.[2]

The Committee recommends that:

1. **the government, in consultation with the Information and Privacy Commissioner of British Columbia, school districts, and the British Columbia Medical Association, develop the ways and means of scientifically measuring rates of child overweight and obesity, and physical inactivity in British Columbia — either by random sampling or by census — according to methods devised by competent statisticians and public health experts. *The British Columbia Child Health Registry* must collect information pertaining to childhood obesity anonymously and with parental consent.**



Kelsey, Age 10, Delta

Factors Contributing to Obesity

At the most basic level, the likelihood that a child or adult will be overweight or obese occurs when caloric intake through the meals, drinks and snacks consumed exceeds the level of energy expended. Overweight and obesity in the general child population emerges as a result of the individual consumption and physical activity decisions made by parents and children. However, obesity is also an environmental disease formed by the interaction of a multitude of factors. Such factors range from the media and marketing messages that bombard children daily, to whether a child has access to safe areas to participate in physical activities, to a parent's ability to provide healthy food.

Community and Neighbourhood Design

Community and neighbourhood design can either promote or hinder physical activity. In recent years, the movement of traffic smoothly from the suburbs into the city centre and back again in the evening has come to dominate many aspects of community design. No longer is there simply a car for every family, instead families now own at least two vehicles, if not a car for every driving member of the household. As such, automobile demands take up much of the attention of city planners and engineers.

What is compromised in this design are attributes that promote fitness within communities: sidewalks, bike paths, green spaces, and central community areas. As a result, residents are guided away from daily activity in their communities. Children are driven to school and other locations within their neighbourhoods, rather than walking or riding a bike. Activities occur less outside within the community, and more inside individual homes or in designated recreation centres. Correspondingly, studies find that residents of neighbourhoods with abundant green space tend, on average, to enjoy better general health.[3]

The majority of suburban commuters rely on their cars for most of their trip to work, while an increasing availability of "drive-through" services such as fast-food, coffee, banking, and video drop-off means people have less of a need to get out of their cars. This convenience and habitual reliance on personal vehicles results in most errands being done by car, even if it is only a few blocks to the grocery store.

Suburban sprawl is associated with higher body mass index scores and an increased occurrence of chronic diseases. In contrast to the lifestyles of their counterparts in the suburbs, those who live in dense urban centres are more likely to walk, and are therefore less likely to suffer from the same illnesses.[4]

Screen Time

The variety of screen time pursuits has increased exponentially over the past decade. Children now have access to an abundance of electronic devices from television, videos and DVDs, to computer and video games, to the Internet. It is widely believed that excessive screen time in children causes obesity. In many Western countries, children now spend one quarter of their waking lives in front of screens of some sort.[5] This sedentary behaviour competes with the time that children are physically active and creates a caloric imbalance. In addition to encouraging inactivity, television viewing also exposes youth to countless commercials for high-calorie, low-nutrition foods.[6]

The *Provincial Health Officer's Annual Report 2005* cited increased screen time as one of seven changes in the pattern of physical activity that contributes to obesity. The report asserted that the amount of time spent in front of a television or computer screen is directly related to increased body mass index rates in both children and adults. This is supported by research from the 2002 McCreary Centre Society Adolescent Health Survey, which found that overweight and obese adolescents in British Columbia watch an additional six hours or more of TV per week than those of a normal weight. Similar findings were noted by Statistics

Canada in its 2005 report *Overweight Canadian Children and Adolescents.* Of children aged six to 11, those who had more than two hours of screen time a day were twice as likely to be obese.[7]

Changes to Children's Play

The previously mentioned changes in community design have further curbed children's activity through the safety concerns of their parents. With unknown neighbours, no sidewalks, and fewer green spaces, parents are less likely to send their children outdoors for unstructured play. Because more parents are working and commuting, a greater number of children are enrolled in after-school programs and more structured, organized play. In addition, the lack of community infrastructure in many of the suburbs often means that these programs and activities are only offered outside the community.

Despite the vigorous activity levels that some of these organized activities provide, the fitness value of unorganized play is actually higher than that of organized sport. In the latter type of play, a child benefits from a limited, scheduled session of exercise as opposed to an extended, reoccurring session.[8] As a result, unorganized play is more strongly related to decreased obesity.

Hailey, Age 9, Nelson

Decline in School Activities

To what extent youth are active is influenced, in part, by the opportunities they have to engage in regular physical activity. Schools provide an environment where all youth can have the opportunity to be physically active. Province-wide initiatives, such as ActionSchools! BC, have been undertaken to encourage schools to integrate more physical activity into the daily lives of students.

Physical education is a mandatory curriculum component from kindergarten through to the tenth grade. The province *recommends* that 10 percent of instructional time be allocated to physical education in these grades. However, facilities, equipment, and time allocation vary widely. This time must also compete with "the basics" of the curriculum.

In addition, the level of participation varies between students. While innovative physical education programs and intramurals may be offered to encourage students to become active, participation is voluntary. By grade 11, physical education is no longer a mandatory component and the majority of Canadian students no longer take those classes at school.

Convenience of Packaged Foods

Today's children and adolescents are more likely to eat foods that are available and easily accessible, and they tend to eat greater quantities when larger portions are provided. The former issue is evidenced by the long-term trend towards making food readily available in more places and more quickly. Whether it is pre-packaged microwaveable food, convenience store items like chips and candy, or the ubiquitous fast-food restaurant, unhealthy items are remarkably accessible. The option of packaged food is made more appealing by the fact that many families consist of two working parents, or single parents, who may turn to unhealthy convenience foods in order to put a meal on the table when they come home.[9] The increasing trend toward convenience with food preparation is also reflected by the popularity of eating out and fast-food restaurants, as well as by the popularity of frozen/microwaveable foods and quick-cooking devices such as microwaves.[10]

Another contributing factor to unhealthy eating among youth is that the meal as a family event has become decentralized. Whereas eating dinner was once a primary activity that involved all members of the family, over the past 30 years the family meal has been in decline. Conversely, snacking and the secondary consumption of food, which often has fewer nutrients and more calories has increased.[11] This trend leads to overeating because snack food is not usually considered a full meal. Since chips, pretzels, and popcorn rarely satisfy one's hunger, people may still consume regular meals on top of snacks, resulting in excess caloric consumption. In determining one's meal, nutritional considerations are in an increasingly fierce battle with taste, cost and convenience; factors that unhealthy packaged foods offer in well-researched profusion.

More High Calorie Drinks

Since the mid-1970s, soft drink consumption among North Americans has doubled.[12] For example, a 355 milliliter serving of pop may contain between ten to 12 teaspoons of sugar and between 140 to 160 calories, numbers that are similar for other, non-carbonated, soft drinks. The rise of soft drink consumption is particularly acute among children. Sugary beverages like pop, iced tea, and calorie-laden "sport" drinks are replacing milk, fruit and vegetable juice and water in the minds and bellies of today's children. The consequence of continually choosing soft drinks over more balanced alternatives is simple: more calories for children who are doing increasingly less to work off the excess energy.

Again, satiety is not achieved by drinking these sugary beverages, prompting a greater likelihood that one will drink a greater amount of them. Some public health officials have noted that the beginning of the obesity epidemic coincides with the beginning of the message to eat a lower fat diet. Although this is generally sound advice, it may have had the unintended consequence of encouraging people to eat proportionally more calories from carbohydrates. Since protein and fat are more satisfying, some speculate that avoiding fats make us hungrier, which then translated into more calories consumed from carbohydrates.[13] While carbohydrates provide energy and are important to any diet, in high calorie beverages the carbohydrates are refined (i.e. sucrose-based) rather than complex (i.e. starch-based). This make soft drinks not only less satiating than nutrient-rich drinks, but also a prime contributor to unhealthy eating in youth.

Larger Portions

Portion size is another major factor negatively effecting people's eating behaviour. Since the 1970s, standard portions have increased in nearly every food group in both restaurants and homes.[14] U.S. research shows that the size of many common foods including soft drinks, hamburgers, salty snacks, and desserts sold in fast-food establishments, convenience stores, and restaurants began to grow in the 1970s, rose sharply in the 1980s and have continued to rise since. For example, between 1977 and 1996, soft drink portions had risen from 387 to 588 millilitres and hamburgers from 162 to 198 grams.[15] This trend parallels the obesity and overweight epidemic around the world. Some current sizes are more than twice that of the original, with fast-food outlets leading the way in large- portioned offerings.

Larger portions can effectively outweigh the benefit presented by otherwise healthy alternatives. People tend to eat more when portions are larger, which can negate any benefit of healthier food choices.[16] However, the most dangerous combination remains the continued overeating of unhealthy foods that is prompted by increased portions. In these cases, cost incentives may outweigh health considerations in a child or adolescent's choice of food, as some opt to increase the amount of food they eat because it is perceived as a better value.

Brooke, Age 9, Victoria

Food Security

The issue of food security, particularly in low-income households, is a matter that has emerged as an area of serious concern. It is apparent from recent research that children living in households with limited financial resources are more likely to suffer from a myriad of health problems, lower education outcomes, and as teenagers, are more susceptible to depression and suicide.[17] Preliminary studies also indicate that children living in poverty are more likely to be overweight or obese.[18] In this section, we explore some programs that may be expanded to ensure that B.C.'s children have access to a safe, affordable, and nutritious food supply.

Food Insecurity

Food insecurity is a term employed when persons confront either economic barriers or physical distribution barriers in fulfilling their dietary needs for a healthy life.

The annual report of the Provincial Health Officer offered the opinion that a significant degree of food insecurity exists in B.C. The report stated that in 2001, 17 percent of British Columbia's population experienced food insecurity. This is evidenced by the fact that over 84,000 people – about a third of them children – use food banks to supplement their dietary needs.[19]

Table 1: 2005 Monthly Cost of Food

Age/Gender Groups	Total Monthly Cost	Age/Gender Groups	Total Monthly Cost
Family Of Four	$652.61	*Pregnancy And Breastfeeding*	
Family Of Three	$476.70	13–15 Trimester 1	$169.35
Child		13–15 Trimester 2	$178.79
1 Year	$75.34	13–15 Trimester 3	$178.79
2–3 Years	$80.93	13–15 Breastfeeding	$185.12
4–6 Years	$108.23		
Boy		16–18 Trimester 1	$169.21
7–9 Years	$130.46	16–18 Trimester 2	$181.89
10–12 Years	$160.22	16–18 Trimester 3	$181.89
13–15 Years	$186.62	16–18 Breastfeeding	$187.35
16–18 Years	$217.75		
Girl		19–24 Trimester 1	$165.38
7–9 Years	$123.67	19–24 Trimester 2	$176.99
10–12 Years	$145.90	19–24 Trimester 3	$176.99
13–15 Years	$156.30	19–24 Breastfeeding	$181.85
16–18 Years	$148.82		
Man		25–49 Trimester 1	$157.68
19–24 Years	$206.44	25–49 Trimester 2	$167.66
25–49 Years	$198.62	25–49 Trimester 3	$167.66
50–74 Years	$178.54	25–49 Breastfeeding	$171.66
75 + Years	$160.95		
Women			
19–24 Years	$151.96		
25–49 Years	$143.71		
50–74 Years	$140.96		
75 + Years	$136.35		
Note: Cost of food for the various age and gender groups is based on living in a family of four.			

Dietitians of Canada, (2006), *The Cost of Eating in B.C.*

The Dieticians of Canada — B.C. Region, estimate that, in 2006, a basket of 66 recommended foods to feed a family of four persons in B.C. for one month costs $653.[20] When costs such as shelter are factored into the equation, many British Columbians must get by on a precariously tight monthly budget. The Committee believes that low-income families require special attention in initiatives that support British Columbians in achieving a healthy diet, as no doubt some are driven to less healthy choices due to financial insecurity.

Committee members believe that it may be instructive for the relevant government ministries — including the Ministry of Employment and Income Assistance and the Ministry of Children and Family Development — to survey actual household budget expenditure patterns, in assessing the affordability of nutritious menus for lower-income families with children.

Nutritious Food Basket Inaccessible for Other Reasons

Some persons believe that knowledge and motivation provide a more common significant barrier than money and that nutritious food is inaccessible for a variety of reasons beyond economic constraints. From this perspective, many are observed to lack the time, the physical access (including transportation), the food selection, the lifestyle, or the motivation that would allow them to purchase the necessary quantities of fresh, healthy food and to have it prepared skillfully. In the absence of such attributes, these individuals are inclined to

purchase convenience foods, frozen foods, junk foods, and other food items that can lead to obesity in the long run.

In this category one may also find immigrants to Canada who are confused by the bewildering choices, strange foods, and unfamiliar marketing institutions one encounters when shopping North-American style.

There exists a variety of causes, but the end result can be the same: poor nutrition and obesity among children. Regardless of the reasons, young children must be protected from food insecurity. The Committee strongly believes that poor nutrition among children is unacceptable in British Columbia.

In order to address childhood diet inadequacies, which can be an important contributing factor in childhood obesity, the Committee suggests the pursuit of several vigorous actions.

Community Kitchens

Developed to provide cooking and nutritional skill-building programs geared specifically towards low-income adults and families, community kitchens can play an important role in promoting healthy eating among individuals and families facing food insecurity. Community kitchens may take on several roles, including providing community dinners to vulnerable people, teaching food skills to young parents, or reducing the cost of food through bulk purchasing and large-quantity food preparation.

In June 2006, the provincial government announced funding to the Directorate of Agencies for School Health to develop programs pertaining to healthy eating and provided both capital funding for community kitchen appliances and support for the distribution of best practices information. The Committee encourages the government to monitor the demand for start-up funding for community projects and invest in projects that provide learning opportunities for individuals and families seeking to learn more about nutritious, inexpensive, and tasty food preparations.

The Committee recommends that:

2. **the government continue to invest in community kitchen projects in order to assist young families in improving their skills in food preparation and healthy eating. In addition, the Committee encourages the government, communities, and local farmers to further expand Good Food Box programs.**

Support for British Columbia's Agricultural Products

Committee members strongly believe that the healthiest food options for both children and adults can be found in our own backyards. We are fortunate to be blessed with an abundance of agricultural products ranging from fruits and vegetable to meats and grains. There are 20,000 farms in British Columbia, employing 14 percent of the provincial workforce and generating $35 billion a year in revenues. This is an industry that provides healthy food options and works right on the doorstep of many communities.

We have all heard that our children (and adults) need to eat five to ten servings of fruits and vegetables per day as a part of a healthy diet. Committee members believe that some of the healthiest food options for both children and adults can be found within our own province, sourced from British Columbia's own agricultural sector. We believe that both the agricultural sector and government should do more to promote British Columbia's agricultural products to domestic consumers. We would encourage the government and industry to develop social marketing campaigns that actively promote B.C. agriculture products as *the* best source of nutritional fruits and vegetables.

The Committee also endorses efforts to promote British Columbia's farmers' markets and make them accessible to a larger portion of the population. A recent study on farmers' markets indicates they play an important role in community building and creating social networks of people interested in healthy food options. Furthermore, farmers' markets play an important role in the provincial economy, generating $118.5 million annually for the provincial economy in direct and indirect spending.[21]

The Committee believes that farmers' markets provide a critical link between consumers and those individuals who actually grow the food locally. Their presence in the community fosters increased awareness of agricultural issues in urban communities and allows B.C.'s kids the opportunity to learn more about the agriculture process and nutritional value of locally-grown produce.

The Committee also enthusiastically supports the healthy diet, education and community benefits from community gardens, and believes that the Ministry of Agriculture and Lands should not overlook promoting this important local food source in its program planning. The Committee is also of the view that the Ministry could explore the publication of a targeted "How To" cook book to promote low-cost food and diet options.

The Committee recommends that:

3. **the Ministry of Agriculture and Lands, in partnership with the British Columbia Agriculture Council, the BC Association of Farmers' Markets, and grocery stores, engage in an aggressive campaign to promote British Columbia fresh fruits and vegetables.**
4. **local governments, the Ministry of Agriculture and Lands, and local farmers' markets continue to support and expand farmers' markets to ensure their accessibility to a broad range of consumers.**

Throughout the remainder of this report, the Committee provides additional recommendations on programs that may assist children facing food insecurity. These recommendations include:

- **Support for programs aimed at reducing mortality, obesity, and inactivity in First Nations communities (Recommendation #5, p. 24);**
- **The development of culturally-relevant programs to assist British Columbians from different ethnic backgrounds in leading healthier lives (Recommendation #6, p. 26);**
- **Continued development of programs within schools that educate children on healthy eating habits (Recommendation #19, p. 44);**
- **Support for the School Fruit and Vegetables Snack Program (Recommendation #20, p. 46); and**
- **Additional resources for expanding hot, nutritious school lunch programs. (Recommendation #21, p. 47).**

Sydney, Age 9, Summerland

Aboriginal Health

A key area of concern for members of the Committee pertained to growing obesity rates in British Columbia's aboriginal communities. Across Canada, we learned that young people of aboriginal origin (off-reserve) had a significantly high combined overweight/obesity rate of 41 percent, including an obesity rate 2.5 times the national average.[22] According to the *First Nations Regional Longitudinal Health Survey*, 28.1 percent of on-reserve children are overweight and 14.1 percent are obese.[23] Given that the aboriginal population is generally young, with a median age of 24.7 years (compared to 37.7 in non-aboriginal populations),[24] the future health costs associated with diabetes and asthma will only continue to escalate.

In his 2004 Annual Report, the Provincial Health Officer estimated that in 2003/04, First Nations persons had age-standardized rates of obesity approximately 50 percent higher (females) and 20 per cent higher (males) than other British Columbians — and that these rates would continue to rise. He speculated that the significantly higher incidence of diabetes could be attributed to the adoption of a North American diet high in saturated fat and sugars, along with a sedentary lifestyle and reduced physical activity.[25]

First Nations diets have traditionally emphasized proteins (from abundant fish to wild game) and fresh fruits and vegetables, including nuts and berries. The effort of hunting, fishing and gathering contributed to physical fitness. With the arrival of Europeans, these natural foods eventually became scarce due to population and development pressures on the land, and First Nations were increasingly forced to adopt processed foods supplied through retail channels. The traditional diet and its required physical activity became scarce.[26]

> *"First Nations students are very vulnerable in grade 8 when they come up from the reservations. They are really open to everything. The first thing they see is unhealthy food, and they go for it. They think that's all there is, but I think if you bring in food from the communities or cook from the community to have some traditional foods here – not every day, but maybe once a week."* D. Tenale, Williams Lake.

The situation has become acute within British Columbia's aboriginal communities. Age-standardized diabetes for Status Indians is estimated at 5.7 percent — 40 percent higher than rates found in the rest of population.[27] Each year, more than 520 new cases of diabetes in aboriginals are identified and more than 100 Status Indians with diabetes die each year due to complications associated with the disease. The growing prevalence of Type 2 diabetes in adolescents — a condition typically found in adults — is particularly troubling within British Columbia's First Nations communities.

The government has endeavoured to close this unsatisfactory gap between the healths of these two populations through accelerated investments in public health, infrastructure, and education. However, progress has been unacceptably slow. It would be irresponsible for this committee to ignore such a concentration of obesity and inactivity.

The Committee endorses initiatives taken by the government aimed at addressing the unique health problems and higher mortality of the aboriginal community, including diabetes and obesity. Such strategies include establishing mental health programs to address substance abuse and youth suicide; integrating the ActNow strategy with First Nations health programs to reduce the incidence of preventable diseases, like diabetes; establishing tripartite pilot programs with the Northern Health Authority and the Lytton Health Centre to improve acute care and community health services by utilizing an integrated approach to health and community programs as directed by the needs of First Nations; and increasing the number of trained First Nations health care professionals.[28]

The Committee recommends that:

5. the First Nations' health restorative measures, including programs aimed at reducing mortality, obesity, and inactivity, as outlined in the 2005 Kelowna Accord between First Nations and First Ministers, be implemented on an expedited basis by the British Columbia government.

Chandler, Age 8, Smithers

Obesity and Inactivity in Selected Cultural Communities

Higher incidences of major health problems arising from child overweight and obesity is hardly unique to the First Nations communities. One can observe similar tendencies with other B.C. cultural communities.

For example, the publisher of the bilingual newspaper *Punjabi Patrika*, Andy Sidhu, recently observed that: "It is amazing how many of us are diabetics."[29] This observation is supported by research that indicates that South Asian immigrants are more susceptible to diabetes due to diet and a more sedentary lifestyle.[30]

Dr. Gary Randhawa of the Kelowna Medical Society previously provided testimony to a parliamentary committee on the incidence of diabetes in the Indo-Canadian community. Dr. Randhawa identified cultural and language barriers as two of the principal obstacles that are currently impeding the ability of the provincial health system to reach out to these populations.

The issue of how to approach distinct cultural communities is a difficult one, and has been raised before other parliamentary committees. Suggestions range from placing fitness equipment in religious temples to providing health guides in additional languages. At that time, Dr. Randhawa offered the following insight:

> *There are cultural issues (related to the delivery of health care)… There are certain areas, whether it's the South Asian community or the Italian community, where we have found that (providing information on) chronic disease managements in temples and other areas where these groups feel more comfortable, they certainly make use of it … We have to invest money in (preventative health care) where ethnic communities can understand in their own language, in their own context, in their own cultural area, that these services provided by government are important, that these things are available.*[31]

Witnesses appearing before this Committee also expressed their concern with regards to reaching out to B.C.'s cultural communities. Dr. Warshawski of the Childhood Obesity Foundation provided the Committee with the following information:

> *Once (this) was commonly known as adult-onset diabetes. Now for the first time in some places in the States, they're actually seeing more Type 2 diabetes in children than they are seeing Type 1 diabetes. In British Columbia we're also very concerned because Type 2 diabetes with obesity tends to have a predilection amongst Asian-Pacific and aboriginals. We have a large Chinese and Indo-Canadian population here in British Columbia as well as a large aboriginal population. From previous speakers you've heard about the high incidence of obesity in that group. This is going to be very, very costly.* (Warshawski, 2006)

Similarly, a representative from the B.C. Healthy Living Alliance provided the following testimony to the Committee:

> *There is some evidence to indicate that, unfortunately, new-immigrant populations tend to adopt our western ways more aggressively than is likely in their best interests — for example, more likely to choose the unhealthy food choices that they associate with western society. We really do need to focus, when we're dealing with new immigrant populations, for example, on ensuring that healthy food choices are promoted just as much, or more, as the unhealthy food choices that tend to be associated with the western style of eating.*

The Committee recommends that:

6. programs coordinated by ActNow BC should fully consider the cultural background of important population segments, rank-ordered in terms of their measured susceptibility and vulnerability to obesity and inactivity.

Emily, Age 11, Richmond

The Need for Immediate Interventions

The Committee is of the opinion that there are several areas in which the government can take immediate and comprehensive action to re-enforce the enormity of the overweight and obesity crisis. Simple exhortations and small-scale interventions have done little in changing the behavior of parents and kids alike. As discussed below, the Committee proposes: an enhanced role for ActNow BC; a renewed request for additional funding for public health and prevention programs; strict limitations on access to nutritionally-poor "Not Recommended" foods in public facilities; and a removal of the Social Services Tax exemption provided to "candy and confections," "soft drinks" and other unhealthy foods currently exempt from the PST. Furthermore, the Committee believes that it is imperative that government and industry work together to introduce enhanced labelling requirements and reductions in the amount of sugar, salt, and fats contained in prepared foods and beverages.

The Role of ActNow BC

In the Health Committee's 2004 Report, the Committee recommended that the government should work across all ministries and, in collaboration with outside partners, develop a strategy to promote physical activity and healthy diets and combat obesity. In March 2005, the government of British Columbia created the ActNow BC initiative to promote cross-government and community-based approaches to address common chronic disease risk factors through programs and initiatives that support healthier eating, physical activity, ending tobacco use, and promoting healthy choices during pregnancy. Initially operated under the Ministry of Health, the ActNow BC programs were given increased prominence within government, with the program being elevated to portfolio status on August 15, 2006 — complete with a Minister of State, the Hon. Gordon Hogg. The ActNow BC portfolio currently resides within the Ministry of Tourism, Sport and the Arts.

> *2004 Report Recommendation #18*
> *Government should work across all ministries and, in collaboration with outside partners, develop a strategy to promote physical activity and healthy diets and to combat obesity.*

During this Committee's hearing with the former deputy health minister, we learned that the ActNow program consists of:

- A budget of $40 million over three years, and
- $15 million for the creation of an ActNow BC Incentive Fund to cultivate partnerships in communities and within ministries to develop programs and services to support all of the goals of ActNow BC.[32]

The Committee is duly impressed by the speed with which ActNow BC has coordinated information resources targeting healthy eating, healthy weight, the cessation of tobacco use, healthy pregnancies, and reducing physical inactivity. Similarly, the Committee appreciates efforts taken by both the Ministry of Health and ActNow BC to develop partnerships promoting healthy living. We were also pleased to learn that the government continues to coordinate activities that promote healthy lifestyles through a committee of assistant deputy ministers.

However, in light of the significant resources that obesity — in particular, child overweight and obesity — drains from the health care system in British Columbia, only $13 million a year in funding may be an inadequate investment to prevent childhood obesity.

In reviewing the information presented by witnesses and by ActNow BC, the Committee concludes that current resources devoted to combatting childhood obesity are insufficient.

We also perceive a problem in the efficiency with which funds are allocated. For example, ActNow BC's current roster promoting "Active Living and Healthy Diets for Children" encompasses more than 40 different programs. We question whether these programs are all delivering measurable results. We look to ActNow BC to measure their effectiveness in improving nutrition and reducing physical inactivity?

Perhaps some consolidation of programs is in order. It is clear that much more work needs to be done to coordinate and synthesize currently available information pertaining to childhood obesity and physical activity. Although overweight and obesity rates have grown dramatically over the last 25 years, large uncertainties remain concerning the linkage between our science-based knowledge of childhood obesity, and the resulting public policy. Clearly, research into childhood obesity is still in its infancy. ActNow BC has an important role to play in understanding the extent of the problem, and what constitutes effective intervention strategies.

> *"First Nations students are very vulnerable in grade 8 when they come up from the reservations. They are really open to everything. The first thing they see is unhealthy food, and they go for it. They think that's all there is, but I think if you bring in food from the communities or cook from the community to have some traditional foods here – not every day, but maybe once a week."* D. Tenale, Williams Lake.

Front-line service providers — nutritionists, community recreation leaders, and public health officials — recognize the problem and are implementing a myriad of community-based programs to address it, using their own unique specialties. For example, we heard great things about the Health and Recreation Alliance Committee of Greater Victoria's convincing *Eat Well, Get Moving* and *Leisure Involvement for Everyone* programs. These programs are funded by such organizations as Canadian Tire and Coast Capital Savings, user fees, and municipal taxes. Likewise, when meeting with representatives of the Vancouver Coastal Health Authority, we were impressed by the diversity of programs offered within the different municipalities served by the health authority.

These front-line practitioners are to be commended for the work they have done to date. In many cases, they have developed programs for children and youth from scratch, seeking "buy-in" from the health authorities, municipal councils, and the private sector, and have delivered these programs on a shoestring budget. However, as outside observers, we look at these programs across the different municipalities and regions and see further opportunities to promote these programs which have the same objectives and similar delivery models.

At the provincial level, the BC Healthy Living Alliance has been successful in incorporating inputs from a wide variety of health and physical activity associations to set targets and intervention strategies for improving physical activity levels, improving eating habits, and reducing tobacco consumption.[33] The work done by the BC Healthy Living Alliance is to be highly praised and provides a great starting point for changing the behaviour of B.C.'s kids and parents. In fact, many of the recommendations contained in our report have originated from the work of the BC Healthy Living Alliance and the Childhood Obesity Foundation, along with the Provincial Health Officer and the British Columbia Medical Association.

The Committee believes ActNow BC is an important portfolio within government. With expanded funding and a broader coordinating mandate as outlined in this report, the Committee believes ActNow BC will be in a better position to assess the effectiveness of the quite confusing array of community-based programs currently trying to deal with the obesity issue, and help determine which ones work best and which ones merit expansion to the provincial level, in a cost-effective manner.

The Committee recommends that:

7. **the government continue to designate ActNow BC as its coordinating fitness, diet and wellness agency.**
8. **all ministries should review their service plans to ensure that the objectives of ActNowBC are considered fully.**
9. **ActNow BC conduct a comprehensive review of programs directly funded by government and non-government agencies pertaining to physical activity, healthy eating, healthy schools, healthy workplaces, and healthy communities, and ensure that such programs are effective in targeting obesity and physical inactivity in both children and adults.**

Expenditures on Public Health

In 2004, the Health Committee recommended that the government gradually invest in the "full ounce of prevention," and increase the budget for public health activities from three percent to six percent of the total health budget. In 2004 dollars, this would translate into a budget increase of approximately $375 million annually.[34]

> ***2004 Report Recommendation #2***
> *Funding for public health activities should gradually increase from about three percent of total health expenditure to at least six percent.*

Population health falls into five basic categories:

- *Population health assessment*: Monitoring the ongoing health of the population, the status of various groups, and understanding the underlying factors contributing to health status.
- *Health surveillance*: Tracking and reporting rates and trends in illness, disease and injury, such as early recognition of communicable disease outbreaks, cancer risks, food-borne disease outbreaks, and infectious diseases.
- *Health protection*: Environmental control of illness such as water treatment monitoring, restaurant and food inspections, air quality monitoring, and emergency preparedness and disaster response.
- *Disease and injury prevention*: Activities include immunization programs, investigation and control of disease outbreaks, encouraging healthy behaviors, and the fortification of water with fluoride.
- *Health promotion*: Education programs to encourage healthier and safer lifestyles.

However, information received by the Committee from the Ministry of Health indicates that while "the provincial government supports the idea of increasing funding for public health activities," its additional investments to build public health capacity of $8 million, $16 million, and $24 million are limited investments compared to the total health budget. The Committee reiterates its recommendation from 2004 that additional resources must be

provided to public health to ensure it plays a greater role in the prevention of disease and illness.

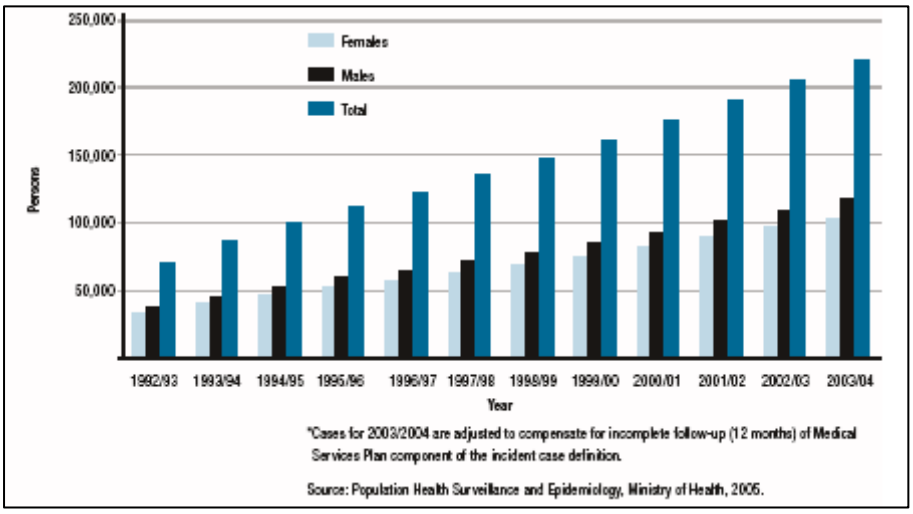
The Committee recommends that:

10. the government implement the recommendation of the Select Standing Committee on Health 2004 report, to gradually raise the proportion of the Ministry of Health budget devoted to public health promotion and disease prevention from approximately three percent to six percent of total health spending.

Diabetes Action Plan

In December of 2005, the Provincial Health Officer released a report outlining the health impacts and costs associated with Type 1, Type 2 and gestational diabetes in British Columbia.[35] The findings of this report are shocking: in 2004, approximately 222,000 individuals were living with diabetes. Of these, over 90 percent of the diagnosed cases were Type 2 diabetes, which typically occurs in adults who are also overweight or obese due to unhealthy eating and physical inactivity. People with diabetes and its complications accounted for 19 percent of all hospital costs, 14 percent of Medical Service Plan costs, and 27 percent of PharmaCare costs — for a total of $1.04 billion in 2003/04.[36]

Figure 4: Prevalence of Diabetes in British Columbia



Source: Provincial Health Officers Annual Report 2004, *The Impact of Diabetes on the Health and Well-being of People in British Columbia, 6.*

In British Columbia, the Ministry of Health funds 80 diabetes education centres, staffed by health care professionals who provide support and information on healthy eating, the safe use of medications and how to prevent complications from the disease. The Ministry also works with the Canadian Diabetes Association in providing information to people living with diabetes and promoting prevention campaigns.

Diabetes generally affects older segments of the population; however, the primary contributing factors of unhealthy diets and physical inactivity affect all British Columbians. The Committee requests that the Ministry of Health, in conjunction with gradual increases in budget allotments to public health promotion and disease prevention, develop, in consultation with stakeholders, a comprehensive action plan for population health interventions to address the rapid growth of diabetes in British Columbia.

> *"Type 2 diabetes was formerly called adult-onset diabetes because it was primarily a problem afflicting older adults — middle-aged, 40, 50 and 60 — and most of these were overweight. But now we're seeing this condition in younger and younger kids."* Dr. Carl Ivey, Campbell River

The Committee recommends that:

11. the Ministry of Health continue to develop an action plan for population-health interventions to address Type 2 diabetes, largely attributable to weight gain and physical activity. The action plan should include a specific component for addressing diabetes in children and youth.

Vending Machine and Food Sales

One area in which the Committee believes ActNow BC should be taking a lead role is in the development, promotion, and implementation of made-in-B.C. policies concerning food vending machines — not just in schools, but in all provincial buildings. The Committee encourages a broad stroke intervention that will serve to harmonize the linkage between government goals and effective action.

Vending Machines and Food Sales in Schools

The work undertaken by the Ministries of Education and Health provides an excellent starting point for a comprehensive public vending machine and food sales policy for all public buildings in British Columbia. Under the *Guidelines for Food and Beverage Sales in B.C. Schools*, the government has committed that foods classified with the "Not Recommended" designation will be prohibited from being sold in vending machines in B.C. schools.[37] Furthermore, by 2009 all schools and districts will be required to ensure that all foods and beverages sold in schools — including foods sold from vending machines, cafeterias, canteens, and fundraising events — meet the following composition:

- at least 50 percent of foods must come from the "Choose Most" category;
- 40 to 50 percent must come from the "Choose Sometimes" category; and
- no more than 10 percent will be from the "Choose Least" category.

Table 2: Overview of food classifications, based on the *Guidelines for Food and Beverage Sales in B.C. Schools*

Not Recommended	Choose Least	Choose Sometimes ✓[2]	Choose Most ✓✓
These items, including candies and drinks where sugar is the first ingredient, or the second ingredient after water, tend to be highly processed, or have very high amounts of sweeteners, salt, fat, trans fat or calories relative to their nutritional value. These foods must be eliminated in school food sales by 2009.	These items, including such things as fries, tend to be low in key nutrients such as iron and calcium and highly salted, sweetened or processed. These foods should make up 10% or less of food choices available for sale in B.C. schools.	These items, including such things as fruit canned in light syrup, represent choices that are moderately salted, sweetened or processed. They should account for 40 – 50% of foods and beverages sold in B.C. schools.	These items, including whole grain breads and fresh vegetables, tend to be the highest in nutrients, the lowest in unhealthy components, and the least processed. They should account for 50% or more of foods and beverages sold in B.C. schools.

Source: Ministries of Health and Education (2005).

The Committee endorses the work conducted by the Ministries of Education and Health to provide healthier food options to B.C.'s children and encourages all schools in the province to adopt the guidelines well in advance of the 2009 target date.

The Committee recommends that:

12. the government redouble its efforts to remove junk food from schools and modify food offered in schools to be consistent with nutritional guidelines for fat, sugar and salt content.

Saqa, Age 7, D'Arcy

Vending Machine and Food Sales in Public Facilities

> *I can tell you today that we're going to extend that initiative to take junk food out of vending machines in all provincially owned public buildings, including hospitals. We'll act next spring to ensure all vending machine contracts for those facilities are full of healthy food, not junk food.* (Premier Gordon Campbell, November 4, 2006)

On November 4, 2006, the government announced its intention to remove junk food from all vending machines in all facilities operated and funded by the provincial government. Presumably, this directive would extend not only to schools and hospitals, but also to universities, colleges, and break rooms in provincial government and Crown Corporation buildings. The Committee believes that this announced policy is an important step in providing harmonization in provincial government policy. After all, if we as parents and grandparents expect our children and grandchildren to eat healthier, we too must be willing to change our behaviour.

> *"Make new multi snacks that taste good. Instead of selling chips and pops in vending machines, sell healthy products like milk."* J. Pathamanathan, Vancouver

In looking to define the "junk foods" referenced by the Premier, we would encourage the government to apply the same standards used in B.C. schools to a broader vending machine and food sales policy. It is the Committee's opinion that foods that are "Not Recommended" as defined by the *Guidelines for Food and Beverage Sales in B.C. Schools* are indeed junk foods and should not be available for sale in any vending machine located on provincial government property. Furthermore, the Committee endorses regulations that would require the "50-40-10" guidelines (as outlined on page 33) for the contents of vending machine to be followed in all public buildings.

Janahan Pathamanathan and Isabelle Tupas, students of General Brock Elementary School, speak to the Committee in Vancouver. The two students are the youngest witnesses ever to appear before a parliamentary committee in British Columbia.

However, vending machines are not the only food purchasing options available on government properties. For example, a typical university campus will have a convenience store stocked with candy and instant meals loaded with salts and fats, cafeterias offering everything from deep-fried chicken to bacon cheeseburgers, coffee shops offering high fat mochas and coffee- and cream-based beverages, plus banks upon banks of food and beverage vending machines. Clearly, simply removing just "Not Recommended" foods from vending machines will do little to affect behavioural change.

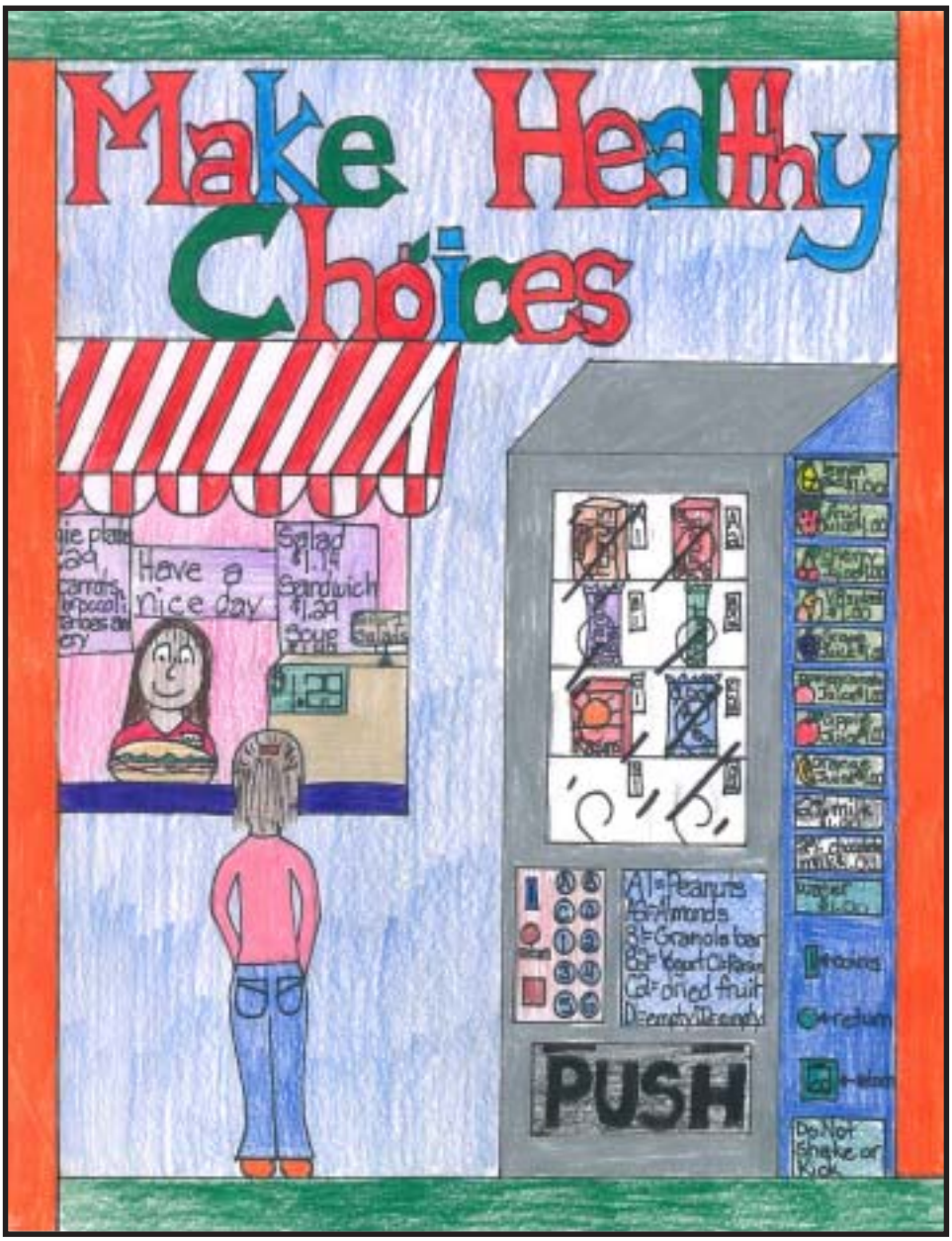
> *"I suggest that the chips, candy and pop in vending machines be replaced with healthier choices. Milk-to-go, granola bars, juice boxes, fruit leather and many other options are all better for the mind and body, and they are the choices that our school must support in order for us to maintain a more improved lifestyle."* Y. Pinaza, Vancouver
>
> *"It's just that when people are grazing on the vending machines or up at the store, it's not healthy."* A. Robertson, Campbell River.

What is needed is a comprehensive policy regulating the sale of all foods in B.C.'s public buildings. Using the *Guidelines for Food and Beverage Sales in B.C. Schools* as a baseline, the government should prohibit the sale of "Not Recommended" food products by all companies selling food in facilities owned or managed by the province by 2009. There needs to be an ultimatum issued to food manufacturers, distributors, and retailers: provide healthier food options or be prepared to lose your prime retailing space.

Furthermore, we would encourage all municipalities to follow the Committee's recommendations and remove all "Not Recommended" foods from municipal recreation facilities, community centres, and municipal government buildings. British Columbia needs a harmonized approach on the sale of foods in public facilities if we are going to make healthy food options the easy choice for both children and adults.

The Committee recommends that:

13. **the government order the mandatory removal of all products classified as "Not Recommended" under the *Guidelines for Food and Beverage Sales in B.C. Schools* from vending machines and other food outlets on property owned or managed by the provincial government by 2009, including, but not limited to, schools, hospitals, universities, and cafeterias in government buildings, and follow the 50-40-10 food contents outlined within the *Guidelines.***
14. **the government require all kiosks, restaurants, snack shops and other food outlets operating within properties owned or operated by the provincial government to adopt the *Guidelines for Food and Beverage Sales in B.C. Schools,* and prohibit the sale of "Not Recommended" products.**
15. **municipal governments be encouraged to consider adopting measures similar to the Committee's proposed vending and food sales guidelines.**



Lauren, Age 12, Chilliwack

Ending the (tax) Free Ride for Junk Foods

One debate the Committee heard during our public hearings was over whether British Columbia should implement a junk food tax on foods and beverages high in fat, sugar, and sodium. The argument in favour of adding taxes on junk or snack foods are twofold. First, introducing such taxes may positively reinforce in an individual's mind that the products being purchased are not the best options for healthy nutrition. Second, advocates of additional taxation on foods of poor nutritional quality argue that the revenue generated from such taxes should be targeted to support social marketing programs that reinforce healthy eating and physical activity messages.

> *"Suppose that government introduces a tax on cookies to discourage the consumption of fat and reduce obesity. Cookies are a composite commodity; there are large variety of cookies that are available to consumers, all of which have different fat contents. If a composite is taxed by its average fat content (or any other measure), then consumers have considerable latitude within the composite as to how much fat they will choose to consume. Furthermore, it is generally true that the cookies with the lowest fat contents tend also be the highest priced. Low fat foods tend to be higher priced because they are more expensive to produce and because consumers consider low fat foods to be higher quality. Conversely, high fat foods tend to be low quality, lower priced foods."* J. Stephen Clark, (2006), "Fat taxes as a policy instrument to control obesity," Written submission.

At this point in time, this Committee does not endorse recommendations for a specific "junk food tax." Indeed, we learned that applying small taxes on energy-dense and salty foods would be unlikely to cause significant positive changes in consumption patterns and may actually push lower income consumers towards purchasing lower quality food items with higher fat and sugar loads.[38]

Application of the Retail Sales Tax to Snack Foods, Beverages, and Candy in Ontario

RST applies to snack foods and candy when sold for 21¢ or more. Examples of taxable items include:

- candy coated or chocolate covered raisins,
- chewing gum,
- chocolate bars, jelly beans and other candies,
- granola bars,
- marshmallows,
- potato chips, corn chips, pretzels and puffs, however flavoured,
- popcorn (salted, buttered or flavoured), and
- salted or coated nuts and seeds.

Source: Ontario Ministry of Finance, Tax Revenue Division.

However, the Committee believes that it is important for consumers to be made aware that those products with high levels of sugar, fat, and salt are undesirable choices. Indeed, many jurisdictions in both Canada and the United States have instead opted to remove exemptions covering candy, confections and soft drinks from their provincial or state sales tax (see Table 3). For example, seven Canadian provinces (including Ontario, Manitoba, and provinces with harmonized provincial and federal sales taxes) include candy, chocolate bars, and beverages as foods not worthy of tax exemption status. British Columbia, to date, has not followed suit in removing the exemptions allotted to these products.

In reviewing British Columbia's current policies concerning the application of taxes vis-à-vis candy, confections, and soft drinks, the Committee learned that such foods are notably exempted under section 70 of the *Social Services Tax Act* [RSBC 1996, Chapter 431]. We believe that this is an oversight that requires immediate attention.

In addition, to ensure these products are not simply reclassified as "food products" under the Act, (that are also exempt from the Social Services Tax) the Committee recommends that the government amend Section 2.4 of the *Social Services Tax Act Regulations (B.C. Reg. 84/58)* to explicitly exclude candy, confections, and soft drinks as products not covered under the "food products" exemption.[39] Furthermore, the Committee suggests that the government consider classifying all products identified as "Not Recommended" under the *Guidelines for Food and Beverage Sales in B.C. Schools* as products that should not be exempt from the Social Services Tax.

Table 3: Food Excluded from State Sales Tax Exemptions for Food (2002)

STATE	*SALES TAX RATE*	*NONEXEMPT FOOD AND BEVERAGES*
Connecticut	6%	Soft drinks, soda, candy, and confectionery unless sold in school cafeterias, college dining halls, sororities and fraternities, hospitals, residential care homes, assisted living facilities, senior centers, day care centers, convalescent homes, nursing homes, or rest homes, or unless sold from a vending machine for less than 50 cents
Illinois	6. 25%	Soft drinks
Indiana	5%	Candy, confectionery, chewing gum, soft drinks, soda, mineral water, carbonated water, and ice
Kentucky	6%	Candy, confectionery, chewing gum, soft drinks, soda, mineral water, carbonated water, and ice
Maine	5%	Soft drinks, iced tea, soda, water (includes mineral, bottled, and carbonated water), ice, candy, and confectionery
Minnesota	6. 5%	Soft drinks, candy, and all food sold through vending machines
New Jersey	6%	Candy, confectionery, and carbonated soft drinks
New York	4%	Candy, confectionery, fruit drinks containing less than 70% natural fruit juice, soft drinks, and soda unless sold from a vending machine for less than 75 cents
North Dakota	5%	Candy, gum, carbonated beverages, soft drinks containing less than 70% fruit juice, powdered drink mixes, coffee, coffee substitutes, tea, cocoa, and cocoa products
Texas	6. 25%	Carbonated and noncarbonated packaged soft drinks, diluted juices, ice, and candy
Washington	6. 5%	Carbonated beverages, ice, bottled water

Source: National Conference of State Legislatures, Federation of Tax Administrators

In conducting a cross-jurisdictional review of the revenue implications of this proposal, the Committee was unable to put a firm estimate on how much revenue it would generate within the Canadian context. However, based on the work of Jacobson and Brownell in reviewing revenue projections from sales taxes on junk food in the United States — and using the state of Kentucky as baseline — the Committee estimates that removing the exemptions on candy, confections, and soda pop may generate additional revenues of approximately $40 to 45 million per year.[40] The inclusion of all "Not Recommended" food products would boost this revenue source.

The Committee recommends that:

16. **the government introduce amendments to the *Social Services Tax Act*, (Section 70) removing the exemption provided to "candies and confections" and "soft drinks" under the Act.**

17. **the government, using the *Guidelines for Food and Beverage Sales in B.C.* as a template, remove the Social Services Tax exemption provided to all unhealthy foods and beverages meeting the definitions of "Not Recommended."**

Kramer, Age 10, Victoria

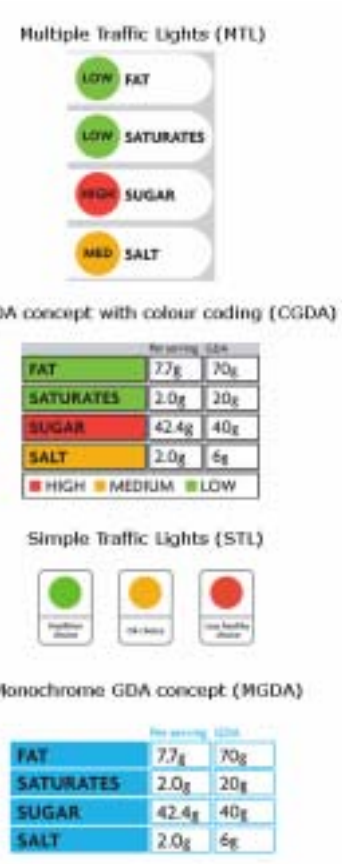
Nutrition and Exercise Council

In the Health Committee's 2004 report, we recommended that the BC Progress Board be asked to measure health and wellness indicators. We are pleased to report that the Progress Board's Benchmarking Reports now include information on top-line health outcome measures such as cancer and cardiovascular disease mortality, life expectancy, and potential years of life lost. The Committee fully endorses the continued collection of this useful data by the BC Progress Board.

2004 Report Recommendation #28

The BC Progress Board should be asked to permanently measure health and wellness indicators along with economic indicators to enable a more balanced and complete picture of progress in the province.

Figure 5: Sign post labelling options (United Kingdom)



However, if we are going to address the issue of overweight and obesity in British Columbia, the province requires an independent body to affect change and monitor specific outcomes relating to physical inactivity and unhealthy eating. For this reason, a *Nutrition and Exercise Council* is needed.

To be comprised of senior representatives from all levels of government and the food and beverage industry, we envision the *Nutrition and Exercise Council* to advise government and take leadership on an array of issues:

- **Work with the federal government and industry to develop new labelling requirements, including the introduction of mandatory "signpost" labels alerting consumers to high fat, sugar, and salt content in foods,**
- **Work with industry to reduce the levels of fats, salts, and sugars in foods,**
- **Actively encourage industry to adopt stronger self-regulation criteria of food and beverage advertising and marketing directed at children under twelve, and**
- **Publish an annual report measuring progress in improving diet and activity levels and reducing obesity.**

Recently, the Food Standards Agency in the United Kingdom conducted research into mandatory "signpost" labelling requirements (Figure 5). Placed on the front of every packaged food product, signpost labelling would require all food manufacturers to categorize the levels of fats, saturates, sugars, and salts as meeting pre-determined targets per serving size as "low"

(green), "medium" (yellow) or "high" (red).[41] The Committee is intrigued by this proposal and its applicability to British Columbia and Canada.

We envision the primary role of the *Nutrition and Exercise Council* to build upon the *Guideline for Food and Beverage Sales* and make recommendations on the classification all food products as meeting the criteria of "Choose Most" "Choose Sometimes" "Choose Least" or "Not Recommended." Furthermore, we would like to see the *Nutrition and Exercise Council* to work closely with the federal government to require all packaged foods sold in Canada to have front-of-package labels with a modified version of the "Simple Traffic Light System" for ease of classification. Using *Guidelines for Food and Beverage Sales in B.C. Schools*, foods with a "Choose Most" designation would be authorized to display a "Green Light;" "Choose Sometimes" a "Yellow Light;" "Choose Least" or "Not Recommended" a "Red Light."

Such a system would provide both the consumer and retailers with clear and relevant information on the high risk factors associated with various foods, determine whether the social services tax is to be applied, and force consumers to make an easier choice on whether they truly wish to consume a product of low nutritive value.

We would like to remind the provincial and federal governments that opposition to similar a strategy was put forward by the tobacco industry when it faced mandatory labelling requirements. The amount of fats, sugar, and salt in today's prepared foods are also resulting in serious health problems. In light of the serious health consequences raised by overweight and obesity, the Committee is of the view that consumers must be assisted in making informed choices when deciding on the foods that their children and families are to eat.

In addition, the Committee believes other tasks may be assigned to the *Nutrition and Exercise Council* such as:

- **Conduct an investigation into the feasibility of new junk food taxes on non-nutritive foods and beverages.**
- **Develop ongoing public marketing campaigns to raise awareness of diet and exercise issues and assist in lifestyle change.**

At this time, the Committee supports the idea of the immediate removal of the exemptions provided to "candy and confections" and "soft drinks" under the *Social Services Tax Act.* However, we also believe that the application of additional taxes to foods of little nutritional value will require additional consideration in the near future. We believe that the *Nutrition and Exercise Council* would be an ideal agency for classifying products that are of little nutritive value and assessing an appropriate level of taxation, if deemed necessary.

In addition, we believe that the *Nutrition and Exercise Council* may also be the an appropriate body for conducting independent research into public marketing campaigns to change behaviours as they relate to physical inactivity and unhealthy eating in kids. We believe that if we are serious about changing behaviours within our society, we must first know what messages will and will not work. The Committee sees this council as providing strategic advice to government on the development of social marketing messages to fight obesity.

The Committee recommends that:

18. reporting to the minister responsible for ActNow BC, the government create a *Nutrition and Exercise Council*, composed of senior representatives of different levels of government, healthy living advocates and stakeholders, and food and beverage industry officials to examine and report out annually on progress made on the following issues:

- **Negotiate with the food, confectionary, and beverage manufacturers and distributors to achieve voluntary reductions in the fat, sugar, and salt content marketed in British Columbia.**
- **Develop warning labels alerting consumers to high fat, sugar, and salt foods, such as a red-amber-green system, and/or a calorie-load-per-serving system.**
- **Investigate the feasibility of new junk food taxes on non-nutritive foods and beverages.**
- **Enhance corporate self-regulation of food and beverage advertising and marketing directed at children under twelve.**
- **Develop ongoing public marketing campaigns to raise awareness of diet and exercise issues and assist in lifestyle changes.**
- **Publish an annual report measuring progress in improving diet and activity levels and reducing obesity.**

Allison, Age 10, Nelson

The Role of Schools

In 2003, the Provincial Health Officer identified British Columbia's schools as being an important setting for health promotion.[42] Serving as a "crucible of development," a comprehensive school health strategy would offer students health instruction, preventative health services, social supports, and a healthy physical environment.[43]

Representatives from the Ministries of Education and Health were invited to appear before the Committee in May 2006. During their presentation, the ministry officials highlighted four areas in which the Ministry of Education has taken an active role in promoting healthy eating and physical activity within the school setting. These programs include:

- Revisions to school programs to incorporate physical activity and healthy eating, including the expansion of the ActionSchools! BC framework;
- Development and implementation of the *Guidelines for Food and Beverage Sales in B.C. Schools;*
- Capital funding for equipment and fitness programs; and
- Multi-stakeholder collaborations to bolster nutrition and exercise programs.

It is clear to the Committee that schools must play a critical role in shaping the attitudes and actions of British Columbia's youngest citizens. Based on our consultations, we highlight some areas in which we believe that the government, the Ministry of Education, and school boards can do more to encourage healthy eating and promoting physical activity.

Promoting Healthy Eating

The Committee has identified four areas in which the government and the Ministry of Education could take an additional leadership role in promoting healthy eating in B.C.'s schools. These include: continued improvement in K-to-12 programs that stresses the importance of a proper diet; full and mandatory adoption of the *Guidelines for Food and Beverages Sales in B.C. Schools*; and an orderly roll-out of the School Fruit and Vegetable Snack Program. In addition, the Committee believes that the government should continue to consider bolstering funding to the CommunityLINK (Learning Includes Nutrition and Knowledge) program to support the provision of healthy meals to students most in need.

Healthy Nutrition Programs in Schools

The witnesses from the Ministry of Education informed the Committee that since 2002, significant changes to encourage healthy nutrition and physical activity within British Columbia's K-to-12 curriculum have been introduced. In particular, the deputy minister advised that a revised K-to-10 health and career education curriculum and a new K-to-7 physical education curriculum were implemented as of 2006. In addition, the ministry has designed teacher-training resources to support the new modules.

The Committee also notes that the ActionSchools! BC program has recently added a healthy eating component to support activities within the existing activity zones.

The Committee supports the efforts made by the Ministry of Education to revise B.C.'s education programs to emphasize smart nutrition choices.

The Committee recommends that:

19. the Ministry of Education continue to develop and promote programs that educate children on healthy eating habits and encourage school-aged children to choose healthy meal options.

Food and Beverage Sales

> ***2004 Report Recommendation #8***
> *Continue efforts to replace unhealthy foods in B.C. schools with healthier choices.*

In partnership with the Ministry of Health, the Ministry of Education drafted the *Guidelines for Food and Beverages Sales in B.C. Schools* which articulate plans for removing "Not Recommended" foods from vending machines, school cafeterias, snack shops, and fundraising events. In addition, the *Guidelines* recommended that all food sales in B.C. schools should strive to offer students a product mix of foods that consists of 50-40-10 of "Choose Most," "Choose Sometimes," and "Choose Least" food options.

During our meeting with the Ministry of Education officials we learned that there are some notable school districts making great gains in removing unhealthy foods from schools. However, the deputy minister of education also indicated that the Ministry of Education's initial survey of food sales found that the majority of foods being sold in schools could be classified as unhealthy. The deputy minister indicated that the ministry intends to conduct a follow-up survey on foods available for sale in B.C. schools during the 2006-07 school year.

- **As stated earlier in the report, the Committee endorses the removal of all food products classified as "Not Recommended" under the *Guidelines* by 2009 and recommends to government that all schools in the province be mandated to adhere to the 50-40-10 allocation of foods available for sale to students.**

School Fruit and Vegetable Snack Pilot Program

> ***2004 Report Recommendation #9***
> *Explore the "Fruit in the Schools Program" to provide B.C. children with fresh B.C. produce.*

In 2004, the Health Committee recommended the expansion of the School Fruit and Vegetables Snack pilot program. In May 2006, we asked the Ministry of Agriculture and Lands to provide an update on the implementation of the program.

Goals of the School Fruit and Vegetable Snack Program

- *To increase consumption of B.C. fruits and vegetables*
- *To increase the knowledge of students and their families:*
  - *that fruit and vegetables are grown in B.C.;*
  - *that fruit and vegetables are important for health benefits.*
- *To develop projected costs and systems for planning an expansion of the project across B.C.*

The Committee learned that the program was expanded to include ten urban, suburban, and rural schools from each health region of the province. Working with the Ministries of Agriculture and Lands, Education, and Health, retailers, community nutritionists, and the Centre for Disease Control, the program saw a twice-a-week delivery of locally grown produce to the Foodsafe-certified pilot schools.

During our meeting with the pilot project coordinators, the Committee learned that there

currently exists an unsolicited waitlist of 120 schools willing to participate in the program. However, we also learned that one of the major hurdles for the expansion of the program was a lack of Foodsafe-certified schools able to handle the delivery of fresh fruit and vegetables, as well as inadequate storage facilities.

The Committee believes that there is considerable merit to a complete and orderly roll-out of the program to the 1,200 schools by 2009, as suggested by the witnesses from the Ministry of Agriculture and Lands. Not only will the program provide nutritious snack options and a linkage between students and the source of their food, it will also provide an enormous economic benefit for B.C.'s agricultural producers. Indeed, we learned that at full implementation the program would result in the output of one ten-acre apple orchard being consumed per week in B.C.

The Committee recommends that:

20. the Ministry of Agriculture and Lands and the Ministry of Education work with ActNow BC to expand the School Fruit and Vegetable Snack Program across the province.

Ethan, Age 5, Vancouver

Meal Programs for Students in Need

During our meeting with representatives of the Vancouver Coastal Health Authority, the Committee heard about lunch programs operating in 26 elementary schools and administered by the Vancouver School Board. The Committee learned that hot lunch programs in the Vancouver School District serve more than 9,000 vulnerable students in need of supplemental nutrition.

The cost of school meal programs are shared by school districts, community agencies, parents, and the provincial government. In addition to base school district funding provided to the school districts, the Ministry of Education provides additional funding to students at risk through the CommunityLINK program. The $45.4 million provincial investment in programs across the province is designed to assist the funding of breakfast and lunch programs, inner-city school programs, after-school care, school-based support workers, community school programs, and counselling for at-risk children and youth. Funding offered through the CommunityLINK program has remained constant since 2004/05.

In 2002, the Directorate of Agencies for School Health commissioned a review of needs for school lunch programs in B.C. schools. Based on the regional sampling conducted, the report found that there was a current need for 35 new meal programs and an expansion of 67 programs already in place.[44] Citing this research, the Provincial Health Officer recommended in his 2005 annual report that the provincial government "work with school boards to ensure meal programs are available in a dignified manner, to all children in need."[45] The Health Committee endorses this recommendation.

The Committee recommends that:

21. the government provide additional resources to expand subsidized hot, nutritious school lunch programs in schools with the greatest need.

Logan, Age 8, Atlin

Promoting Physical Activity

A common theme that emerged, particularly during our youth consultations, was an unambiguous call for schools to place a greater emphasis on both non-competitive and competitive options for physical activity within the education system. The Committee was interested in proposals for expanding the ActionSchools! BC program to include kindergarten to grade three, and possibly grades eight to 12. In addition, we saw the need for the Ministry of Education, municipalities, and local schools to continue to make joint investments in physical activity infrastructure.

Physical Education

In British Columbia, physical education is a requirement for all students from kindergarten to grade 10. The current physical education curriculum for students in these age groups is composed of the following themes:

- Active Living
- Movement – Alternative-Environment Activities
- Movement – Dance
- Movement – Games
- Movement (Gymnastics)
- Movement (Individual and Dual Activities)
- Personal and Social Responsibility

> *"I think that either the schools should make PE mandatory or make it so it's a graduation requirement to have a certain amount, which is more than 80 hours of portfolio, of physical education. That's why people aren't doing something — because it's not mandatory."* J. Kouwenhoven, Fort St. John

Table 4 below illustrates the approximate number of hours of mandatory physical education for each of kindergarten, grades one to seven, and grades eight to 10 based on the number of instructional hours in the day, the minimum number of instructional days and the percentage of instructional time expected to be allocated to physical education. Although students in grades 11 and 12 are not required to take physical education, they are required to "engage in 80 hours of moderate or intense physical activity," either inside or outside the school setting.

Table 4: Physical Education Requirements in B.C.'s Schools

Grade Level	*Hours in a day*	*Minimum number of instructional days (06/07)*	*% of instructional time allocated to P.E.*	*Approximate # of hours of mandatory P.E.*
Kindergarten	2.4	187	10	44.9
Gr. 1-7	4.75	187	10	88.8
Gr. 8-10	5.15	187	10	96.3
Gr. 11-12	5.15	187	No requirement	0

The Health Committee strongly endorses the opinion that every student in B.C.'s education system should be required to participate in daily physical activity.

However, in making this recommendation, we would encourage schools and school districts to develop new and innovative ways for encouraging physical activity — particularly for students in grades 11 and 12.

A common theme we heard during our consultations with youth was that a large segment of the student population has no interest in traditional physical education models. One story, in particular stood out:

> *P.E. classes do not achieve what they are intended to do. The curriculum does not set strict enough rules, and many of the activities we do in P.E. are simply time fillers. An example of this is a game that I played in P.E. class for almost a month every day last year, called elimination volleyball, in which everyone in the P.E. class just simply goes onto the volleyball court, and they play a game of volleyball. If the ball hits the ground, whoever is at fault for the ball hitting the ground is then eliminated.*
>
> *People that are good at volleyball stay on the longest and get better, and those who aren't good at it are simply eliminated and have no chance to get better. There are also a lot of people on the court, so it's not hard to get the ball. You don't have to get much exercise, so it doesn't help at all, which is what P.E. is supposed to do.* (M. McMahen, Williams Lake).

A clear message that we heard was that students want and need options for physical activity in schools. We believe that the K-to-10 physical education program needs to shift its focus to emphasize and promote fitness and recreational physical activity. The current sports-based curriculum leaves many students, often those most in need of exercise, sitting on the sidelines

Physical activity programs for students in senior secondary should encourage a diversity of activity — from competitive team and solo sports, to aerobics and conditioning, to non-traditional activities such as biking and rock-climbing. It should also include activity on a

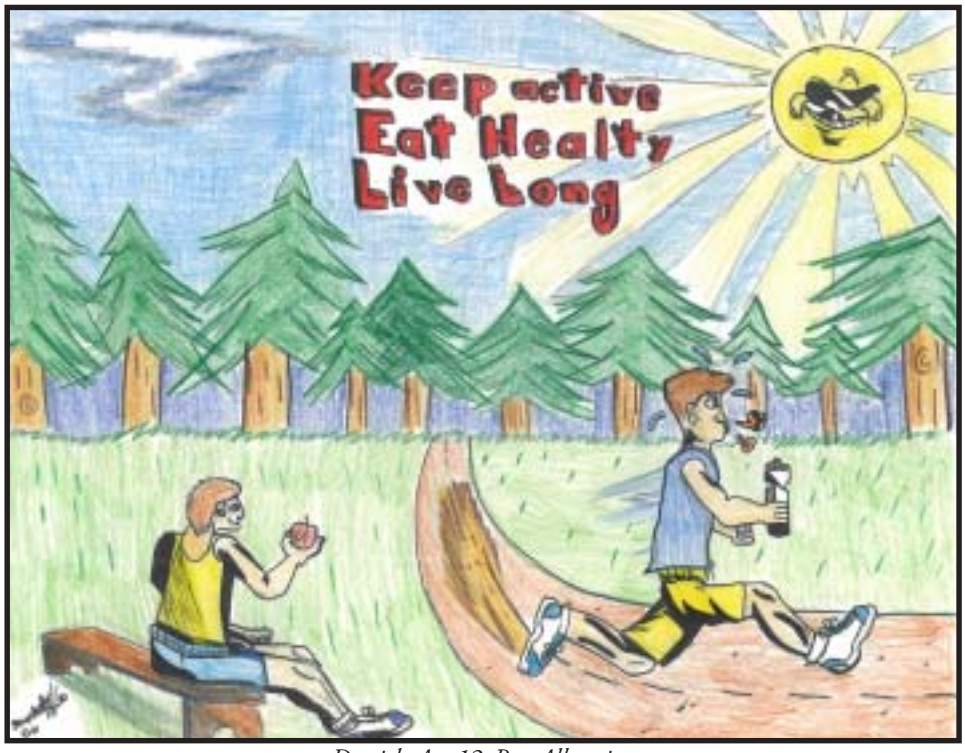
smaller scale — activities like walking around the school or track for 15 minutes. The important thing to remember is that we need to get our students out and moving daily.

The Committee recommends that:

22. the Ministry of Education collaborate with stakeholders in the education system to encourage physical activity for all students in the K-to-12 education system.

"I believe that most students want a feel for all of the activities that are out there, like rock climbing. I don't believe other students would normally go outside and pay however much money it costs to go rock climb by themselves." J. Lam, Vancouver

"Conditioning PE is a program created specifically for students who want to improve their personal fitness on their own level as opposed to all kids in one class working at the same pace. It is quite an improvement compared to team sports." C. Girard, Campbell River



Derrick, Age 12, Port Alberni

ActionSchools! BC

The Committee was also provided information on the ActionsSchools! BC program. With the stated goal of increasing physical activity in B.C.'s schools to 150 minutes a week, ActionSchools! requires schools and teachers to critically assess the current physical activity levels and access to physical activity infrastructure and equipment, and to adopt an action plan to increase the physical activity levels of all students.

The program is designed to augment the current physical education curriculum in British Columbia's schools. As of August 31, 2006, the program in place in 970 schools, administered by more than 7,000 teachers and 50 regional trainers, with an enrollment of more than 177,500 students.

The program itself is composed of six action zones designed to encourage a healthier school environment, provide for in-class activity, foster the development of partnerships with parents and communities, promote extra-curricular activity and school spirit, and inform teachers on best practices in scheduled physical education activities.

In our meeting with Dr. Heather McKay — the principal investigator for research into the Action Schools! BC program — the Committee was informed about the successes of the program:

- No negative impact on academic performance in students participating in the program.
- Over a 16 month period, a 25 percent improvement in cardio-vascular health.
- An increase in physical activity in both boys and girls participating in the program.
- An observable decrease in body fat in boys at risk of obesity.

What is ActionSchools! BC?

. . . providing **more** opportunities for **more** children to be **more** physically active more often.

ActionSchools! BC is a best practices model designed to assist schools in creating individualized action plans to promote healthy living.

• ActionSchools! BC contributes to the health of children by integrating physical activity and healthy eating messages into the fabric of the school community, with the goal of providing children with a foundation for life-long healthy living.

• ActionSchools! BC provides a framework for action, building on best practices and existing resources within the school community, targeting six Action Zones.

• ActionSchools! BC promotes the creation of inclusive and diverse physical activity opportunities throughout the school day, and supports school initiatives to make healthy choices the easy choices for children.

• ActionSchools! BC is a source of inspiration and practical resources including action ideas, program recommendations, success stories, downloadable resources and program information, and links to healthy living resources from British Columbia and across Canada.

• ActionSchools! BC utilizes existing relationships and generates new partnerships among teachers, school administrators, families, and community practitioners.

• ActionSchools! BC is based on a comprehensive evidenced-based health outcome evaluation that proved the model was effective at increasing the physical activity level of students, and contributed to improvements in their bone health, heart health, dietary requirement awareness, and academic performance (McKay, H.A., et. al., 2004).
Source: ActionsSchools BC!

ActionSchools! BC is a success story. It is a model that promotes physical activity within the classroom and supports the existing physical education curriculum. The Committee endorses the work done to date to deliver this program to elementary and middle schools across British Columbia We recommend to government that the ActionSchools! BC model be adopted by all schools across the province for kindergarten to grade seven. Furthermore, we encourage the

government to look at ways in which daily physical activity and information on healthy living can be delivered to students in grades eight to 12.

The Committee recommends that:

23. in developing programs to support increased activity levels — especially for children in middle and secondary schools — the Ministry of Education should work with physical education and nutrition specialists to encourage a comprehensive education program that provides non-competitive and universal participation through, for example, an expansion of the ActionSchools! BC program.

Physical Activity Infrastructure in Schools and Communities

A common concern the Committee heard was that in order to meet mandatory physical activity requirements, schools must first have the necessary infrastructure in place to support an expanded program. During our meeting with the Ministry of Education, the Committee learned that $1.3 million was allocated amongst the province's elementary and secondary schools to increase the amount of physical activity equipment they had available for students. An additional $50,000 was provided to BC School Sports to help cover the cost of insurance.

"We are experiencing aging infrastructure. Many of the facilities that we're using now were constructed between 1965 and 1985. I don't have to tell you that many of our arenas and facilities are centennial facilities that are now reaching the end of their life cycle; 75 percent of our recreation facilities are 25 years or older. It is a looming capital liability that we need to be mindful of. It's probably the biggest single impediment." J. Mills, Ministry of Tourism, Sport and the Arts

A frequent refrain that emerged in the written submissions was about the need for both the provincial and municipal governments to rehabilitate and expand existing physical activity infrastructure. The Committee learned that many arenas, gyms, and recreation facilities built during the 1960s are nearing the end of their useful life.

2004 Report Recommendation #10
Explore creative, multi-use strategies to use B.C. schools after hours as centres for life-long learning.

In our 2004 report, we recommended that the government "explore creative multi-use strategies to use B.C. schools after hours as centres for lifelong learning." The Committee is pleased to report that, in 2005, the government created a $10 million fund to promote 60 School Community Connections. The program supports partnerships between schools and local governments to greater utilize school facilities for broader community purposes. It is designed to promote sustainable and innovative collaboration between school boards and local governments and take into account the needs of the community as a whole.

As of October 2006, 34 school districts and their local government partners were involved in the program. Of these, five have progressed to the third and final phase where they are eligible for up to $125,000 to implement the project. Six districts are in phase two where they are eligible for up to $40,000 to develop the project, and 23 are in phase one where they are eligible for up to $5,000 to plan the project. One such project funded under the School Community Connections program — the expansion of the Colquitz Middle School — is highlighted in the text box on this page.

School Community Connections: Colquitz Middle School, Saanich

The initiative of developing the partnership between the school district and the Municipality of Saanich allowed the school to increase its direct educational area in size and scope.

- The gymnasium was increased from its originally planned size of 570 m^2 to 737 m^2,
- The metal and wood shop increased from 175 m^2 to 206 m^2 ,
- Foods and Clothing lab from 118 m^2 to 140 m^2,
- A separate Drama/Dance studio was increased from 128 m^2 to 141 m^2,
- Arts room was increased from 118 m^2 to 183 m^2, and
- Music room was enlarged from 137 $m^2$to 153 m^2.

This additional space was urgently needed for community recreation programming and it allowed the school to offer more choices to a greater number of students.

Source: School Community Connections

The Committee supports partnership arrangements that encourage enhanced utilization of the province's schools. We believe that the government should continue to invest in these partnership arrangements to leverage additional funding from the federal and municipal governments to support the expansion of needed facilities that encourage both physical activity and lifelong learning. The Committee believes that schools must be the focal point within communities if we are to combat childhood obesity. Working with municipalities and school boards to bolster available activity and learning spaces will go a long way to ensuring that all kids — and their parents — can participate and learn in environments that are both welcoming and supportive of best practices in health living.

The Committee also realises that any proposal to introduce mandatory physical activity for grades 11 and 12 will require significant provincial reinvestment in B.C.'s schools. We propose that the provincial government, in consultation with school boards and municipalities, develop an aggressive strategy for expanding the physical infrastructure available at B.C.'s schools to facilitate an expansion of mandatory physical education and physical activity.

The Committee recommends that:

24. the government, school boards and municipalities continue to work to develop and expand joint-use agreements between school boards and municipalities to maximum utilization of education and physical activity facilities.

25. the government — in partnership with school boards, municipalities, and other funding agencies — formulate intermediate-term plans for the aggressive maintenance, replacement, and expansion of physical activity infrastructure; including, but not limited to gymnasia, weight rooms, sports fields and physical activity studios.

Getting To and From School

A firm belief held by this Committee is that schools and communities must do more to ensure that children and parents walk or cycle to school. Where possible, walking and cycling to and from school is an easy and affordable way for students to meet their daily physical activity requirements.

One of the first briefings we received was from the Insurance Corporation of British Columbia's (ICBC) Safer City program coordinator to discuss ways to promote walking and cycling to schools.

Safer School Travel is a component of the larger Safer City program currently operating in eight municipalities. Safer City was developed by ICBC and is a collaboration between a city, police, and ICBC. The program aims at making road safety a priority through leveraging and integrating the three E's of "education," "enforcement," and "engineering" into one framework to maximize the effectiveness of key resources in a community.

Within each participating community, a staff person is designated to act as the Safer City coordinator. The coordinator meets with interested school parent advisory councils to discuss existing walking and cycling deficiencies in connecting schools and communities. Such deficiencies may include a lack of sidewalks, poor lighting, a lack of trails, or high vehicle speeds in school zones.

After reviewing the data, the coordinator prepares a document outlining short-, medium-, and long-term solutions to the problems. The coordinator is responsible for liaising with local government, ICBC, and other government agencies to find funding to remedy infrastructure deficiencies.

The Committee was disappointed to learn that the ICBC was considering winding down funding for the Safer City Program. It is the Committee's belief that if the government wants British Columbian's to become physically active through walking and cycling in our communities, funding must be available to ensure that municipalities and schools can provide both safe transportation routes and promotional material to support the use of these routes.

The Committee firmly believes that every school in British Columbia should have safe routes defined and promoted within the community. We also believe that schools, municipalities, and the province must work together to ensure that every student in British Columbia has access to safe walking or cycling routes.

The Committee recommends that:

26. in consultation with school boards, parent advisory committees, the Insurance Corporation of British Columbia, local police forces, and local governments, the provincial government ensures that all elementary, middle, and secondary schools in the province develop safe routes to school. Furthermore, schools should actively promote such safe walking routes to parents, while actively discouraging motor vehicle use to and from school.

27. the government provide resources to local governments and school boards to develop and promote safe routes to school programs and provide additional resources to assist municipalities to address existing walking and cycling infrastructure deficiencies relating to the safe routes to school program.

Colby, Age 11, Cranbrook

Michael, Age 8, Abbotsford

The Role of Communities

Local municipalities and regional districts have an important role to play in ensuring that adults and children have easy access to infrastructure that supports the integration of physical activity in our daily lives. Through the development of community and municipal plans, B.C.'s cities and towns have the power to design neighbourhoods that will encourage walking and cycling to schools, shopping, work, or to recreational opportunities. Conversely, many neighbourhoods under construction today entrench a family's dependency on the automobile to simply purchase a litre of milk from the "corner store."

While income and education strongly influence how healthy and active people are likely to be, urban design and transportation infrastructures play a key role in making physically active choices easier or more difficult. Witnesses told us that more compact, walkable communities tend to promote active choices and reduce weight gain, while more spread out, fragmented communities requiring automobile travel tend towards less physical activity and greater weight gain. Clearly there is an important role for urban design standards that favour compact, mixed-use communities linked to destinations like schools, universities, and places of work by safe, accessible walking and cycling routes. Addressing the infrastructure deficit in B.C.'s existing

communities is necessary if obesity and physical inactivity are to be effectively resolved. This requires action, in the form of targeted investments in walking, cycling, and trail facilities to modify the built environment so that physical activity can more easily be part of daily life, whether as recreation or active transportation.

A new study of the impact of neighbourhood design on health status published by the Canadian Institute for Health Information confirms research conducted here in B.C. One conclusion is that people who have to commute to work are more likely to be obese because they spend more time in their cars, while people living in pedestrian-friendly neighbourhoods tend to be more physically active. In addition, children who live in places with more safe and accessible play spaces are less likely to be overweight.[46] Modifying neighbourhoods and the streets linking them to daily destinations like schools, universities and colleges, and places of work will prompt more children and adults to engage in physical movement.

Making the active choice the easy choice means a working partnership with B.C. communities to retrofit streets and neighbourhoods designed for car travel with safe and appealing walking, trails, and cycling facilities. B.C. is a leader in providing seed money to municipalities to partner in these kinds of facilities, but reversing the trend of weight gain and physical inactivity demands action on a broader scale. A provincial commitment to facilitate 'active living in walkable communities' for all British Columbians provides a framework for these changes, while expanding the cost-sharing of annual improvements will accelerate the pace of positive change.

Survey research at the national scale has shown strong evidence of high levels of latent demand for improved walking and cycling environments. The public is ready for change, but demand will only crystallize if the supportive facilities are provided at the local level.

Below, we highlight three programs in which the province and local municipalities can and should work together to design (and redesign) communities to promote physical activity. These include the Cycling Infrastructure Partnerships Program, the recently-announced LocalMotion grants, and Green Cities Awards.

Cycling Infrastructure Partnerships Program

One way in which the provincial and municipal governments have been encouraging British Columbians to make cycling an easier choice for transportation is through the Cycling Infrastructure Partnerships Program (CIPP). The CIPP is a cost-share program in which the provincial government partners with local governments in the construction of new transportation cycling infrastructure. The goal of the program is to promote transportation cycling (cycling to work, school, or errands) as a means of reducing traffic congestion and greenhouse gas emissions. All British Columbia municipalities and regional districts are eligible to apply for up to $250,000 in CIPP funding.

The Committee learned that the provincial contribution of $2 million for 2006/07 assisted in developing 18 projects in 12 communities. Over the three-year life of the program, the

province has contributed nearly $5.5 million to develop 75 kilometres of new bike lanes in the province.

However, we were also informed that the current funding envelope for the program was unable to provide sufficient resources to all municipal projects meeting the criteria of the program. It is the Committee's opinion that the province should significantly increase funding offered through the CIPP to leverage the interest shown by municipalities in developing cycling routes.

> *"The Cycling Infrastructure Partnerships Program is delivered through the local government. It's a very popular program; each years, it's been oversubscribed by local governments. We can't fund all requests."* A. Callandar, Ministry of Transportation

Furthermore, the Committee has observed that the Ministry of Transportation does not have a performance measure within its service plan to set targets for cycling and walking infrastructure development. It is the Committee's opinion that the Ministry should include evaluation criteria within its service plans detailing the number of kilometres and cycling paths and walkways constructed, planned, and funded per year.

The Committee recommends that:

28. the Ministry of Transportation further expand funding available to local governments under the Cycling Infrastructure Partnerships Program, and be directed to include performance measures for major urban bikeways and walkways in its annual service and funding plans.

Allie, Age 10, Nelson

LocalMotion Grants

Recently, the government announced that it will commit a total of $40 million in a new LocalMotion Fund to improve environmental sustainability. Under the program, the province will share the cost with municipalities, for up to 50 percent of capital funding, to help build bike paths, walkways, greenways, improved accessibility for persons with disabilities, and support programs to get kids playing in communities and parks.

Clearly, an additional $10 million per year available to municipalities for projects is a significant boost for municipalities looking to build, redesign, or rehabilitate transportation infrastructure that promotes physical activity or encourages children to play in their local communities. Based on the demand for the Cycling Infrastructure Partnership Program, it is our opinion that many municipalities and municipal districts will support this investment. We would encourage the government to boldly announce that this funding will be available to local communities beyond 2010, and consider increasing funding should demand for the LocalMotion grants exceed the $10 million per year allotment.

The Committee recommends that:

29. the province adopt "active living in walkable communities" as a goal for all British Columbians, and that the 'LocalMotion' grant program be permanently established to accelerate walkway, trail, and bikelane development in partnership with B.C. communities.

Green Cities Award

At the recent Union of British Columbia Municipalities conference, the government announced the creation of an annual Green City Awards to be given to communities encouraging physical activity, energy conservation, and environmental benefits. The Committee supports the government providing recognition to those urban and rural local governments that commit to developing innovative strategies that promote physical activity, recreational opportunities, and densification.

The Committee strongly believes that local governments and developers must work together to ensure that new communities, and new developments within established areas, are designed to facilitate daily physical activity. Local governments should work closely with developers to ensure necessary infrastructure is incorporated into new developments — playgrounds, sidewalks, trails, and bike routes — to limit costly retro-fits down the road.

We would encourage the government to consider acknowledging those communities and developers that place significant attention on developing programs, community facilities, recreation, and unorganized play opportunities for children and youth.

The Committee recommends that:

30. the government, in partnership with the Union of British Columbia Municipalities, develop annual awards for developers and urban and rural communities to recognize best practices in residential development, in terms of densification, recreation, and zoning practices that encourage physical activity.

Ellen, Age 11, Castlegar

Early Childhood Strategies

Breastfeeding

Obesity in children is much easier to prevent than to treat. Prevention can begin very early – in early infancy with a baby's first meal. Some recent research studies have concluded that newborns who are breastfed for the first six months of life are less likely to become obese than babies who consume commercial formula products.[47] In fact, the longer an infant is breastfed, the greater the protective effects against obesity.

Human breast milk contains fats and proteins significantly different from those available in commercial formula products. Proteins from breast milk are not stored and will, therefore not become fat, thus reducing he risk of obesity.

Since 2005, the Canadian Paediatric Society has recommended exclusive breastfeeding for the first six months of life for healthy, term infants.[48] The Society identifies breast milk as the

optimal food for infants and recommends that breastfeeding should continue for up to two years. This recommendation is in keeping with those of Health Canada and the World Health Organization.

The nutritional and health benefits of breastfeeding for infants are well documented. The natural components of breast milk are easily digested by infants and are rich in vitamins, minerals, and other nutrients required for proper growth and development. It provides babies with the enzymes and antibodies they are not able to produce themselves, and protects them against food and other allergies as they grow older. Compared to commercial formula, breastfeeding is low in cost and requires no preparation. There is perhaps an unexpected side benefit: new mothers who breastfeed can also burn up almost 500 calories each day, helping them return to their pre-pregnancy weight sooner.

This all sounds simple. For new mothers it is anything but! While breastfeeding is a natural act, it is also a learned skill. The Committee recognizes that for many new mothers breastfeeding is a challenging and time-consuming routine for both mother and baby. Society and the workplace do not easily accommodate breastfeeding mothers.

Because of these factors, even given the additional cost of purchasing commercial formula products and bottles, many women choose to end breastfeeding after a few weeks, and others may not even start. If more women are provided with encouragement, relevant information, support, and assistance, more may decide to make the healthy choice to begin or sustain breastfeeding. There is a need for support from medical professionals, midwives, lactation consultants, hospitals, and community health centres, particularly those with pre- and post-natal support programs, including those aimed at first-time mothers.

Another key factor in many mothers' decisions to continue or stop breastfeeding is the transition to return to work the end of their maternity or parental leave. As noted by the recent Provincial Health Officer's report, more women might choose to sustain breastfeeding if employment policies were more flexible, and more efforts were made to accommodate breastfeeding or expressing milk.[49] The government could consider legislative or regulatory action in this area to enforce appropriate workplace standards.

The Committee is encouraged that many employers have voluntarily introduced programs to accommodate working mothers who choose to continue to breastfeed, but there is still room for improvement. The provincial government also has an important role to play in modeling comprehensive workplace wellness programs, including the accommodation of breastfeeding wherever possible.

The Committee recommends that:

31. the health regions, hospitals and community health agencies continue to actively promote and support the benefits of breastfeeding through pre- and post-natal support programs, with an emphasis on supporting first-time mothers.

32. the government continue to model positive workplace practices in accommodating working mothers who return to work while continuing to breastfeed.

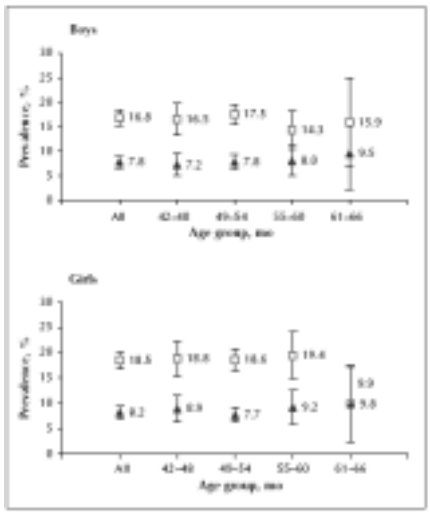
33. the government examine whether legislative or regulatory action may be appropriate to enforce workplace standards for mothers who choose to breastfeed.

Early Childhood Interventions

> *This is where it starts, zero to six, because if you don't have good awareness and start good habits, you're just going to compound the problems in the future. If you have good interventions and prevention programs, zero to six, it's going to cost a lot less down the road.* (L. Locher, Fort St. John)

Early childhood development is the growth of a child that takes place from pre-conception and birth through six years of age. Currently, there are 246,000 children under the age of six in British Columbia.[50] These early years of life provide a crucial foundation for a child's overall health, well-being, and learning skills. Very young children are notably more reliant than older children on parents and caregivers to provide opportunities for regular physical activities that are fun and easy to do, such as walking, playing ball, and unorganized active playtime. Like older children, preschoolers also require a variety of healthy food choices throughout the day. Parents and caregivers are uniquely positioned to model healthy eating, thereby helping to establish positive nutritional habits early in life.

Figure 6: Prevalence of overweight (squares) and obesity (triangles) among preschool children in Newfoundland and Labrador, by sex and age group (mo=months). Error bars represent 95% confidence intervals.



Source: Patricia M. Canning, Mary L. Courage and Lynn M. Frizzell, (2004), "Prevalence of overweight and obesity in a provincial population of Canadian preschool children," Canadian Medical Association Journal, *171 (3), 241.*

Although we do not have the benefit of extensive data on our own provincial rate of overweight and obesity amongst preschoolers, many other jurisdictions are now reporting similar trends among preschool children.[51] For example, a recent study of preschoolers from Newfoundland and Labrador found that 25.6 percent of pre-schoolers aged three to five, were already overweight or obese.[52] Just as childhood obesity has serious implications for future adult health, preschool obesity has serious implications for future child health and may require the need for interventions beginning at an even earlier age.

The Committee, therefore, concludes that more information and data should be collected to support the design of effective interventions for very young children. Furthermore, public health strategies for combatting childhood obesity should also include early prevention measures for preschool children. These programs would be most effective if they incorporated parental education and involvement and if they started before children reach school age — or in some cases even before the age of three.

Although the Committee heard about a few innovative programs to promote healthy living and physical activity to very young children and their parents, we also heard that this age cohort needs more in the way of targeted programs. One program described to us, the Literacy, Education Activity and Play (LEAP) Program, promotes literacy in children up to age five by integrating reading and language skills with play. Through the program, parents and caregivers are able to access tools and resources to help them promote more physical activity and healthy eating in their children, while engaging them in literacy activities such as singing, rhymes, movement and games. Recently, the province formally committed $2.7 million under its ActNow BC strategy to the program to increase healthy living skills in preschool children.[53]

Another key program is the provincially sponsored Success By 6 program; a prevention-focused, community-based initiative dedicated to help children ages zero to six develop the emotional, social, cognitive, and physical skills they need to enter school. The program is based on a partnership between provincial credit unions, the United Way, the Ministry of Children and Family Development, and local communities.

> ***2004 Committee Recommendation #26***
>
> *The health care sector should be utilized more effectively to take a proactive role in the early identification and treatment of early childhood problems. Children who are identified must be able to access proven and effective services.*

While these two programs are good examples of provincial initiatives currently underway, the Committee concludes that a more effective strategy should be developed with key stakeholders to ensure that British Columbia's youngest citizens may benefit from an effective, preventative program to combat overweight and obesity in early childhood years.

The Committee recommends that:

34. **the health care sector, ActNow BC, and other key stakeholders engage in a coordinated effort to further develop, monitor and assess the effectiveness of obesity prevention programs for early childhood.**

35. **ActNow BC work with the Ministry of Children and Family Development and early childhood educators to develop a comprehensive preschool health education program for implementation in daycares, preschools and community settings.**

Kailynn, Age 10, Robson

Bringing Overweight and Obesity to the Forefront

Social Marketing

Several witnesses highlighted social marketing as an integral component of a strategy to address childhood obesity in British Columbia. Like these witnesses, the Committee believes that British Columbia needs targeted messaging to change the trends of increased physical inactivity and unhealthy heating. To be most effective, we need leadership in developing a coordinated strategy to offset the billions of dollars spent by industry to encourage parents and children to buy unhealthy food options.

Social marketing is defined as the "application of commercial marketing technologies to the analysis, planning, execution and evaluation of programs designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their

society."[54] In very basic terms, social marketing is about getting people to realize something has to change; understanding the part they have to play; outlining the consequences of inaction; and detailing the positive alternatives.

Social marketing has its base in the traditional 'four Ps' of marketing – Product, Price, Place, and Promotion. In social marketing, however, the product is the package of benefits associated with the desired action and the price is usually not a monetary one. [55]

Key Features of Social Marketing

1. Consumer behaviour is bottom line.
2. Programs must be cost-effective.
3. All strategies begin with the customer.
4. Interventions involved the *four Ps*: Product, Price, Place and Promotion
5. Market research is essential to designing, pretesting, and evaluating intervention programs.
6. Markets are carefully segmented (grouped).
7. Competition is always recognized.

Source: A.Andreasen, Marketing Social Change. San Francisco: Jossey-Bass, 1995. p. 14.

The objective of social marketing is to influence behavioural change. According to several witnesses, the process of change facilitated by comprehensive social marketing will generally proceed through several steps, which:

- increases awareness of an issue;
- educates the audience about the consequences,
- provides information on solutions or actions;
- frames issues to influence attitudes;
- creates an environment for change;
- promotes trial behaviour;
- reinforces the value of ongoing behaviour change;
- monitors and adjust the program.

Several witnesses underscored the importance of understanding the core values and beliefs of its audience in order to connect. We heard of the need for a social marketing campaign to clearly identify the issue, to demonstrate the relevance and consequences of the issue, to outline alternatives and realistic responses, and for it to have an emotional trigger.

Of all the keys to success outlined by witnesses, the Committee heard most strongly about the need for a long-term commitment to a social marketing campaign aimed at childhood obesity in British Columbia. A long-term commitment not only enables good research, which has been identified as essential to any good social marketing program, but also allows for the process of behavioural change to occur.

Witnesses provided the Committee with several suggestions for developing marketing campaigns to address childhood obesity in British Columbia. A clear message that we heard was that a single "reduce childhood obesity" advertising campaign will not work. Instead, multiple messages using many mediums, targeting different audiences, and conducted over a significant period of time are required.

On the physical activity side of the equation, several programs now in place through 2010 Legacies Now and ActNow BC, such as SportFit, the 20-Percent Physical Activity Challenge

and ActionSchools! BC, were cited as good starting points for normalizing physical activity in youth and emphasizing personal responsibility for physical fitness.

However, let us be clear about the challenges relating to changing the food consumption habits of young British Columbians. It is estimated that in the United States, more than $10 billion per year is spent by corporations to market food, beverage, and restaurant products to children and youth.[56] The promotion of unhealthy foods targeting children is extensive, persuasive, and evolving. Marketing of high sugar and high fat products goes beyond mere television advertising of a generation ago; it extends now to the Internet, video games, cell phones, and product placements.

Earlier in this report, we identified that the removal of the social services tax exemption on junk food may be one possible source of revenue to fund a long-term and comprehensive social marketing campaign aimed at getting British Columbians more active and making better food choices. It is the Committee's belief that an umbrella organization, such as the Nutrition and Exercise Council proposed in this report, is required to centralize and promote physical activity and healthy eating messaging, and ensure that the messaging campaign persists over time.

The Committee recommends that:

36. under the direction of the *Nutrition and Exercise Council*, the government provide stable, long-term funding for a social marketing program that reinforces positive messages on physical activity and healthy nutrition.

Conclusion

If our healthcare system is to be sustainable in the coming decades, we have to change our diets and activity levels now.

Humans evolved in an environment where salty, fatty, and sweet foods were in very short supply – it was a survival advantage to eat as much as you could of them. As a result we are innately predisposed to want fatty, sweet, and salty food.

But our environment has changed and these are now easily available everywhere. Unfortunately, our predispositions haven't changed, and they make us sitting ducks to the heavy marketing of fast-food, sweet pop, and snacks.

Lack of physical activity is also a worry. In earlier times, we were more active in the normal course of our daily lives. Now we … expend fewer calories in our daily activities.

Eating badly and inactivity have as much to do with urban planning, marketing, and social and economic policy as they do with personal choice. We all know perfectly well we should be active and eat fruit and vegetables, but we live amidst a barrage of marketing messages that seduce us to eat processed foods, watch TV, and spend time on the Internet, rather than out walking.

There is a lot that our society can do to support healthy choices. We need to make the healthy choice the easy choice if we are to affect behaviour.

Dr. Patricia Baird, Speaking Notes,
Provincial Congress on Health, Vancouver B.C.
October 10, 2006

In November 2005, the Health Committee was tasked with developing strategies to combat childhood obesity. As noted by Dr. Baird, we recognized the challenges in confronting our children's "innate predispositions to want fatty, sweet, and salty food" and that our children are "sitting ducks to the heavy marketing of fast-food, sweet pop, and snacks"

The Legislative Assembly of British Columbia charged us with finding answers, and you have read our recommendations. Of course, there are the limitations of law. Government cannot order a halt to the consumption of salty, fatty, and sweet foods, or banish video games, any more than it can successfully order the elimination of alcohol abuse. We can, however, lead the charge to change behaviour through educational campaigns targeting children and consumers, through environmental supports to redesign healthy communities, and through economic incentives and disincentives to promote healthy choices.

We hope that our recommendations for multi-faceted interventions will result in changing social attitudes and instigate sustained health improvements over time.

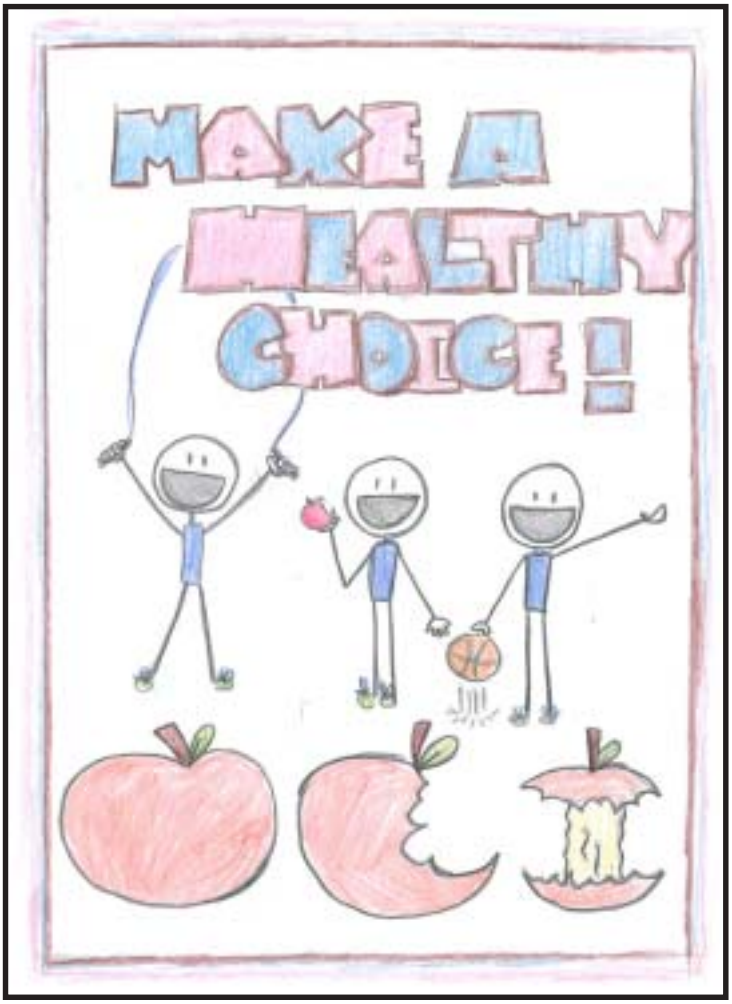
The tools at our disposal are modest. The promotional budgets of government are tiny in comparison with the growing billions of dollars spent by industry to promote unhealthy

food consumption. Likewise, society's urge to invent labour-saving devices, centuries in formation, is not easily refocused to expend physical energy.

However, we believe three factors can eventually turn the tide:

- Parents' natural desire to see their children mature into healthy adults – with longer (not reduced) life expectancies.
- The capacity of the media and channels of mass education to inform and persuade parents, children, and youth of the necessity of reform.
- A shift in the health system from its preoccupation with acute care to a greater emphasis on prevention and chronic care management in response to the emerging environment.

The Committee, therefore, commends our advice to the Legislative Assembly. It represents a beginning step to a healthier future for our children.



Tracy, Age 12, Victoria

Recommendations

The Select Standing Committee on Health recommends that:

Monitoring

1. **the government, in consultation with the Information and Privacy Commissioner of British Columbia, school districts, and the British Columbia Medical Association, develop the ways and means of scientifically measuring rates of child overweight and obesity, and physical inactivity in British Columbia — either by random sampling or by census — according to methods devised by competent statisticians and public health experts. *The British Columbia Child Health Registry* must collect information pertaining to childhood obesity anonymously and with parental consent.**

Food Security

2. **the government continue to invest in community kitchen projects in order to assist young families in improving their skills in food preparation and healthy eating. In addition, the Committee encourages the government, communities, and local farmers to further expand Good Food Box programs.**
3. **the Ministry of Agriculture and Lands, in partnership with the British Columbia Agriculture Council, the BC Association of Farmers' Markets, and grocery stores, engage in an aggressive campaign to promote British Columbia fresh fruits and vegetables.**
4. **local governments, the Ministry of Agriculture and Lands, and local farmers' markets continue to support and expand farmers' markets to ensure their accessibility to a broad range of consumers.**

Aboriginal Health

5. **the First Nations' health restorative measures, including programs aimed at reducing mortality, obesity, and inactivity, as outlined in the 2005 Kelowna Accord between First Nations and First Ministers, be implemented on an expedited basis by the British Columbia government.**

Ethnic Communities

6. **programs coordinated by ActNow BC should fully consider the cultural background of important population segments, rank-ordered in terms of their measured susceptibility and vulnerability to obesity and inactivity.**

ActNow BC

7. **the government continue to designate ActNow BC as its coordinating fitness, diet and wellness agency.**
8. **all ministries should review their service plans to ensure that the objectives of ActNowBC are considered fully.**
9. **ActNow BC conduct a comprehensive review of programs directly funded by government and non-government agencies pertaining to physical activity, healthy eating, healthy schools, healthy workplaces, and healthy communities, and ensure that such programs are effective in targeting obesity and physical inactivity in both children and adults.**

Public Health

10. **the government implement the recommendation of the Select Standing Committee on Health 2004 report, to gradually raise the proportion of the Ministry of Health budget devoted to public health promotion and disease prevention from approximately three percent to six percent of total health spending.**

Diabetes Action Plan

11. **the Ministry of Health continue to develop an action plan for population-health interventions to address Type 2 diabetes, largely attributable to weight gain and physical activity. The action plan should include a specific component for addressing diabetes in children and youth.**

Vending Machine and Food Sales in Public Buildings

12. **the government redouble its efforts to remove junk food from schools and modify food offered in schools to be consistent with nutritional guidelines for fat, sugar and salt content.**
13. **the government order the mandatory removal of all products classified as "Not Recommended" under the *Guidelines for Food and Beverage Sales in B.C. Schools* from vending machines and other food outlets on property owned or managed by the provincial government by 2009, including, but not limited to, schools, hospitals, universities, and cafeterias in government buildings, and follow the 50-40-10 food contents outlined within the *Guidelines.***
14. **the government require all kiosks, restaurants, snack shops and other food outlets operating within properties owned or operated by the provincial government to adopt the *Guidelines for Food and Beverage Sales in B.C. Schools,* and prohibit the sale of "Not Recommended" products.**

15. **municipal governments be encouraged to consider adopting measures similar to the Committee's proposed vending and food sales guidelines.**

Social Services Tax Exemptions

16. **the government introduce amendments to the Social Services Tax Act, (Section 70) removing the exemption provided to "candies and confections" and "soft drinks" under the Act.**
17. **the government, using the *Guidelines for Food and Beverage Sales in B.C.* as a template, remove the Social Services Tax exemption provided to all unhealthy foods and beverages meeting the definitions of "Not Recommended."**

Nutrition and Exercise Council

18. **reporting to the minister responsible for ActNow BC, the government create a *Nutrition and Exercise Council*, composed of senior representatives of different levels of government, healthy living advocates and stakeholders, and food and beverage industry officials to examine and report out annually on progress made on the following issues:**
    - **Negotiate with the food, confectionary, and beverage manufacturers and distributors to achieve voluntary reductions in the fat, sugar, and salt content marketed in British Columbia.**
    - **Develop warning labels alerting consumers to high fat, sugar, and salt foods, such as a red-amber-green system, and/or a calorie-load-per-serving system.**
    - **Investigate the feasibility of new junk food taxes on non-nutritive foods and beverages.**
    - **Enhance corporate self-regulation of food and beverage advertising and marketing directed at children under twelve.**
    - **Develop ongoing public marketing campaigns to raise awareness of diet and exercise issues and assist in lifestyle changes.**
    - **Publish an annual report measuring progress in improving diet and activity levels and reducing obesity.**

Healthy Eating Programs

19. **the Ministry of Education continue to develop and promote programs that educate children on healthy eating habits and encourage school-aged children to choose healthy meal options.**

School Fruit and Vegetables Program

20. **the Ministry of Agriculture and Lands and the Ministry of Education work with ActNow BC to expand the School Fruit and Vegetable Snack Program across the province.**

Hot Lunch Programs

21. **the government provide additional resources to expand subsidized hot, nutritious school lunch programs in schools with the greatest need.**

Physical Activity in Schools

22. **the Ministry of Education collaborate with stakeholders in the education system to encourage physical activity for all students in the K-to-12 education system.**
23. **in developing programs to support increased activity levels — especially for children in middle and secondary schools — the Ministry of Education should work with physical education and nutrition specialists to encourage a comprehensive education program that provides non-competitive and universal participation through, for example, an expansion of the ActionSchools! BC program.**

Physical Activity Infrastructure

24. **the government, school boards and municipalities continue to work to develop and expand joint-use agreements between school boards and municipalities to maximum utilization of education and physical activity facilities.**
25. **the government — in partnership with school boards, municipalities, and other funding agencies — formulate intermediate-term plans for the aggressive maintenance, replacement, and expansion of physical activity infrastructure; including, but not limited to gymnasia, weight rooms, sports fields and physical activity studios.**

Safe Routes to School

26. **in consultation with school boards, parent advisory committees, the Insurance Corporation of British Columbia, local police forces, and local governments, the provincial government ensures that all elementary, middle, and secondary schools in the province develop safe routes to school. Furthermore, schools should actively promote such safe walking routes to parents, while actively discouraging motor vehicle use to and from school.**
27. **the government provide resources to local governments and school boards to develop and promote safe routes to school programs and provide additional resources to assist municipalities to address existing walking and cycling infrastructure deficiencies relating to the safe routes to school program.**

Physical Activity in the Community

28. **the Ministry of Transportation further expand funding available to local governments under the Cycling Infrastructure Partnerships Program, and be directed to include performance measures for**

major urban bikeways and walkways in its annual service and funding plans.

29. **the province adopt "active living in walkable communities" as a goal for all British Columbians, and that the 'LocalMotion' grant program be permanently established to accelerate walkway, trail, and bikelane development in partnership with B.C. communities.**
30. **the government, in partnership with the Union of British Columbia Municipalities, develop annual awards for developers and urban and rural communities to recognize best practices in residential development, in terms of densification, recreation, and zoning practices that encourage physical activity.**

Breastfeeding

31. **the health regions, hospitals and community health agencies continue to actively promote and support the benefits of breastfeeding through pre- and post-natal support programs, with an emphasis on supporting first-time mothers.**
32. **the government continue to model positive workplace practices in accommodating working mothers who return to work while continuing to breastfeed.**
33. **the government examine whether legislative or regulatory action may be appropriate to enforce workplace standards for mothers who choose to breastfeed.**

Early Childhood Interventions

34. **the health care sector, ActNow BC, and other key stakeholders engage in a coordinated effort to further develop, monitor and assess the effectiveness of obesity prevention programs for early childhood.**
35. **ActNow BC work with the Ministry of Children and Family Development and early childhood educators to develop a comprehensive preschool health education program for implementation in daycares, preschools and community settings.**

Social Marketing Campaign

36. **under the direction of the *Nutrition and Exercise Council*, the government provide stable, long-term funding for a social marketing program that reinforces positive messages on physical activity and healthy nutrition.**

Endnotes

[1] Margot Shields, (2006), "Overweight Canadian children and adolescents," *Nutrition: Findings of the Canadian Community Health Survey*, (Ottawa: Statistics Canada), 82-620-MWE, 2. Note: information in Figures 1 and 2 are derived from this work.

[2] See Arkansas Center for Health Improvement, (2006), Tracking Progress: The Third Annual Arkansas Assessment of Childhood and Adolescent Obesity. (Little Rock: The Center).

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Appendix A: Update on Previous Recommendations

As a part of its terms of reference, the Select Standing Committee on Health was charged by the Legislative Assembly of British Columbia to report on recommendations from its 2004 publication titled *The Path to Health and Wellness: Making British Columbians Healthier by 2010*.

On November 15, 2006, the new deputy minister of Health, Gordon Macatee, provided the Committee with the following update on the 2004 report's 29 recommendations.

Recommendation #1: *That the impact of ongoing health reform activities continue to be monitored and evaluated by each health service delivery area to ensure their effectiveness and that the results are openly communicated to the public.*

> **Status:** Reporting health authority performance is a key part of both the Ministry of Health's and the health authorities' board accountability framework.
>
> The Ministry of Health reports on health sector performance and reform activities using various mechanisms starting with the *Annual Service Plan Report*, which reports on performance measures used to judge progress on the Ministry's key objectives.
>
> Health Authority Performance Agreements are public documents posted on the Ministry of Health and health authority websites once health authority officials and the Minister of Health have signed them. Several times a year, the Ministry of Health provides data analyses to health authorities to assist them with monitoring their progress towards meeting the requirements of the Performance Agreement. The Ministry publishes an *Annual Health Authority Performance Agreement Report* detailing the status of performance measures by health authority.
>
> Many areas of the Ministry provide annual and periodic reports on various program and health issues such as, *Annual Provincial Health Officer's Report*, *Vital Statistics Annual Report*, *Evolution Of Falls Prevention In British Columbia, March 2006*. Publications show data and results for a range of geographic boundaries from the local health area to the provincial level.
>
> All health authorities hold open board meetings and use web sites and other communication methods to inform the public of their strategic plans, service plans, financial reporting, accreditation results, performance results, etc.
>
> Reporting is generally done at the health authority level as most health authorities consider themselves a single organizational unit.
>
> Where appropriate and meaningful, reporting at the health service delivery area is used to identify issues and to plan specialized services or programs.

Recommendation #2: *Funding for public health activities should gradually increase from about three percent of total health expenditure per annum to at least six percent per annum.*

Status: In the context of renewing public health in British Columbia, the provincial government supports the idea of increasing funding for public health activities. In order to move in this direction, the government has made investments in public health of $8M, $16M, and $24M over 3 fiscal years, starting in 2005/06. The funding will go towards increased public health capacity, with Core Functions in Public Health being used as a guide to developing this capacity.

Recommendation #3: *A portion of all new health care funds received from federal/provincial negotiations should be earmarked for health investments that can be shown to prevent illness or improve the health of the population.*

Status: Over the past number of years, there has been an increased awareness both federally and provincially of the need to invest in activities that can be shown to prevent illness or improve the health of the population. As a demonstration of this awareness, the provincial government has targeted federal funding from the Public Health and Immunization Trust Fund to support childhood and adolescent immunization programs and to enhance public health capacities ($17M in 2004/05, $17.6M in 2005/06, and $17.6M in 2006/07). It has been allocated as follows:

- 2004/05: Childhood and Adolescent Vaccines: $12.769M
  Public Health Initiatives: $4.256M
- 2005/06: Childhood and Adolescent Vaccines: $13.244M
  Public Health Initiatives: $4.415M
- 2006/07: Childhood and Adolescent Vaccines: $13.229M
  Public Health Initiatives: $4.410M

Childhood & Adolescent Vaccine Program Enhancements: B.C. has been able to introduce a number of new, enhanced and catch up programs to infants, adolescents, and high-risk populations. Enhancements have been introduced/enhanced for varicella, influenza, and meningococcal programs.

Public Health Initiatives: Through the trust fund, enhancements in the following areas have also been provided in B.C.: West Nile virus larvicide/adulticide; drinking water protection; emergency management programs and training; HIV/AIDS follow up and prevention activities; meat inspection; and core programs implementation.

Recommendation #4: *Investments that promote healthy living, while also enhancing communities and strengthening the economy should be encouraged.*

Status: Healthy Communities Initiative – Administered by the Union of British Columbia Municipalities (UBCM), a provincial office and community facilitators will support communities with advice, training, networking, and resources as communities plan to become healthier, more sustainable, and economically viable.

Healthy Planning Seminars – In partnership with UBCM, the Planning Institute of BC, and local health authorities, six seminars brought together urban planners, public health staff, local councilors, municipal staff, and community members to consider how community planning contributes to community health.

Recommendation #5: *That an independent, arms-length health promotion foundation be established to facilitate community-based health promotion. Enter into discussions with the UBCM about possible models to achieve that purpose. Explore through discussions with the UBCM models of stable funding.*

Status: Health Promotion Fund – Managed by UBCM, 29 communities received grants (available through the $5 million allocated to UBCM from the Ministry of Health) to the build skills and abilities they need to address their own health promotion priorities and strengthen collaboration and coordination among local governments, health authorities, and non-governmental health-related organizations in protecting and promoting the health of their citizens.

British Columbia Healthy Living Alliance – This is a group of non-profit organizations is aligned to improve the health of British Columbians through leadership that enhances collaborative action to promote physical activity, healthy eating, and living smoke-free. The BCHLA is receiving a one-time grant of $25.2 million to pursue the recommendations outlined in their report.

Recommendation #6: *That the government continues to work towards creating a coordinated, comprehensive, and multi-stakeholder strategy to maximize the school setting for health promotion activities.*

Status: British Columbia is promoting policy development and practices that will help promote health through the school setting.

B.C.'s Healthy Schools initiative is closely aligned with provincial ActNow BC goals: increased physical activity, increased healthy eating, reduced obesity and overweight, and reduced tobacco use.

Key initiatives associated with promoting health through the school setting include: *Guidelines for Food and Beverage Sales in BC Schools* (released November 2005); B.C. School Food Sales and Policies Provincial Report (released November, 2005); B.C. School Fruit and Vegetable Snack Program pilot study (evaluation continues); ActionSchools! BC; and B.C. is leading the Pan-Canadian Joint Consortium for School Health.

In addition, to help facilitate cooperation between the Ministries of Health and Education, the two ministries jointly coordinates the Director of Healthy Schools position.

Recommendation #7: *That adequate funding, promotion and support be given to ensure B.C.'s unique and ground-breaking ActionSchools! BC program be successfully adopted and sustained throughout the province.*

Status: In November 2004, the Premier announced and committed to more than $14.5 million over five years for ActionSchools! BC, which includes expanding the program to grades K-9 province-wide by 2010 and developing a secondary school model. Also announced was that the Ministry of Education will provide $500,000 over two years to train teachers.

As of August 31, 2006, at the grade four to six level, there were 970 registered in ActionSchools! BC, 6,949 registered teachers and administrators, and 177,510 resisted students in B.C. One hundred percent of school districts in the province were involved in ActionSchools!! BC. Thus far, 50 regional trainers have delivered 631workshops and 2,830 classroom action bins have been distributed. The grade four to six model is in the second year of a three-year phased roll-out.

Kindergarten to grade three and middle school models began pilots in January 2006; phased roll out for the implementation of these programs began in September 2006.

Recommendation #8: *That efforts continue to replace unhealthy foods in B.C. schools with healthier choices.*

Status: Government is sponsoring several initiatives designed to replace unhealthy foods and promote healthy eating in B.C. schools:

Food Sales and Policies Survey – Spring 2005 survey on food sales and policies in BC schools. There are plans to repeat the study in Spring 2007. (Ministry of Health and Ministry of Education)

Guidelines for Food and Beverage Sales in B.C. Schools – Guidelines to assist school districts and schools to make informed choices regarding food sales. (Ministry of Health and Ministry of Education)

B.C. School Fruit and Vegetable Snack Program – Research program of 10 elementary schools receiving B.C. grown fruit or vegetables and information materials. (Ministry of Health and Ministry of Education, Ministry of Agriculture and Lands)

ActionSchools! BC - Healthy Eating – Healthy eating resource is being developed and tested in 2006/07. Implementation (grades K to seven) is planned for Fall 2007.

Making it Happen – Healthy Eating at School – Video messages regarding school food policy and website resources to support the development and implementation of school food policies. (Ministry of Education, BC Dairy Foundation, Knowledge Network)

Healthy Eating and Physical Activity Learning Resources – Develop resources to enhance the health curriculum for grades K-to-12 (MEd, MOH, Community Nutritionist Council)

Growing Healthy Kids – One Snack at a Time –Provide 700 refrigerators for B.C. schools to keep milk, fruit and vegetables safe for students (MAL and BC Dairy Foundation).

Recommendation #9: *That the "School Fruit and Vegetable Snack Program" provide B.C. children with fresh B.C. produce be fully explored and supported.*

Status: The Ministries of Health, Education, and Agriculture and Lands have partnered to increase fruit and vegetable intake of school-aged children through the implementation and evaluation of the pilot School Fruit and Vegetable Snack Program. The program, administered through the B.C. Agriculture in the Classroom Foundation, is delivering healthy B.C. fruit and vegetable snacks, to 10 elementary schools.

Recommendation #10: *That creative, multi-use strategies be explored to use B.C. schools after school hours as centres for life-long learning for children and others in the community.*

Status: Many B.C. school boards currently provide access to their facilities after the regular school day for community use. In some cases this is done in partnership with municipal Parks and Recreation departments. There is often a sliding fee structure for space rental, depending on the organization renting the space and their target audience.

The School Community Connections Program has been developed to encourage partnerships between schools and local governments to greater utilize school facilities for broader community purposes. It is designed to promote sustainable and innovative collaboration between school boards and local governments and take into account the needs of the community as a whole.

The School Community Connections Program is jointly managed by the B.C. School Trustees Association and the Union of BC Municipalities, on behalf of the Ministry of Education.

Recommendation #11: *As the employer of more than 25,000 people in the province, the government of B.C. should act as a model for comprehensive, workplace wellness initiatives.*

Status: The Ministry of Health completed a pilot program for a Healthy Workplace initiative in 2004/05. The comprehensive best practice framework was pulled together in a Healthy Workplace Workbook and Toolkit for all other ministries. The toolkit of strategies, suggestions, tools, and templates for the implementation of a Healthy Workplace has been disseminated across the provincial government through a workshop to all Strategic Human Resources Directors.

Recommendation #12: *The government should encourage B.C. business and industry through information sharing to adopt similar wellness programs.*

Status: The Ministry of Health, in partnership with Health Canada and WCG International Consultants Ltd., is developing a Healthy Workplace resource for

small-sized companies to promote a healthier work environment. The resources were piloted in Spring 2006 and will be disseminated to small businesses across the province.

Recommendation #13: *That anti-tobacco efforts continue to receive full support, particularly comprehensive, multifaceted efforts combining education, environmental support, economic disincentives and the enforcement of anti-tobacco legislation.*

Status: The Ministry of Health continues to offer a full range of programs including school-age programming, help for people wanting to quit smoking, and enforcement regarding tobacco sales restrictions. The British Columbia smoking rate (15 percent) continues to be the lowest in Canada.

To further reduce tobacco use rates in British Columbia, the Ministry of Health introduced new legislation in March 2006 to improve compliance with the *Tobacco Sales Act* to better prevent youth access to tobacco products. New regulation is expected to be passed this fall with implementation planned Spring 2007.

Recommendation #14: *That B.C. school districts continue their anti-smoking efforts among B.C. students, including continuing efforts to remove smoking pits from school grounds or to reduce their use.*

Status: To support school districts to continue their anti-smoking efforts, the Ministry of Health facilitated consultations with education stakeholders regarding smoking pits; an environmental scan across Canada and internationally regarding smoking policy in schools; and a report and recommendations for action which is currently being finalized.

In March 2006, the Ministries of Health and Education hosted a consultation on schools and smoking with health and education stakeholder groups.

Recommendation #15: *That the government promote walking and explore methods to enable interested British Columbians to obtain accurate and reliable pedometers. Options could include rebates, bulk purchase, or other incentives to make pedometer use more widely available to encourage British Columbians to "take steps" to become more active.*

Status: The Ministry of Health is collaborating with the BC Recreation and Parks Association to implement a pilot pedometer project. Results of the pilot will provide guidance and direction for further dissemination of this project.

The Ministry of Health recently provided $30 Million to the BC Healthy Living Alliance (BCHLA) and 2010 LegaciesNow for health promotion. The BCHLA will use this support to fulfill the 27 Winning Legacy recommendations, one of which is to "consider subsidizing pedometers as a source of instant feedback to individuals who are attempting to become more physically active."

The Ministry of Health has developed Physical Activity Guides, an interactive website, and a Physical Activity social marketing campaign to encourage, monitor, and track walking and other forms of physical activity.

Recommendation #16: *That the Ministry of Health explore models to create a cost-effective and efficient body or forum to coordinate public health activities and foster collaboration across B.C., particularly for the prevention of chronic disease.*

Status: A range of fora to coordinate public health activities and foster collaboration across B.C. are now in place:

Public Health Leaders Collaborative – Made up of Chief Medical Health Officers, Health Protection Directors, and Public Health Nursing Leaders to provide cross-disciplinary and province-wide coordination for public health issues, including chronic disease prevention.

Leadership Council – CEOs and the Deputy Minister of Health address high priority public health issues that warrant cross health authority coordination for implementation.

Public Health Councils – With representation from each health authority, these councils meet to coordinate and collaborate on issues with cross-regional implication, e.g., Nursing Leaders, Health Officers, Public Health Audiologists, Speech Pathology, and Community Nutritionist council.

British Columbia Healthy Living Alliance - A group of non-profit organizations aligned to improve the health of British Columbians through leadership that enhances collaborative action to promote physical activity, healthy eating and living smoke-free.

Recommendation #17: *The Committee recommends this interministerial model [drinking water] be explored for its application to health promotion activities.*

Status: The Ministry has created an interministry ActNow BC Assistant Deputy Ministers Committee to facilitate cross-ministry participation in meeting governments' goals with respect to health promotion activities, through the ActNow BC strategy.

Recommendation #18: *That the provincial government work across all its ministries and, in collaboration with outside partners, develop a comprehensive, multilevel strategy using effective education, environmental support, economic levers and incentives, and even legislation to promote physical activity and healthy diets and to combat obesity in British Columbia.*

Status: The ADM Committee facilitates cross-ministry participation in meeting government's goals, and provides stewardship for a $5 million Incentive Fund. The ADM Committee will develop "Commitments to Action" an unprecedented cross ministry service plan and an "Atlas of Wellness," which maps health and wellness assets that contribute to the 2010 targets and goal two.

The Incentive Fund provides $5 million in each of 2005/06, 2006/07 and 2007/08 to cost share initiatives that build on existing efforts or create new opportunities for partnerships and alliances among ministries and non-government organizations, agencies, businesses and industries that contribute to the ActNow BC targets and support goal two.

In 2005/06, $4.6 million of the Incentive Fund was expended. Twenty-eight submissions from eight Ministries were approved (Advanced Education, Agriculture and Lands, Children and Family Development, Education, Employment and Income Assistance, Environment, Public Safety and Solicitor General, and Tourism, Sport and the Arts).

Recommendation #19: *That the Healthy BC 2010 strategy receive full government support and be used as a coordinating platform for these health promotion activities, particularly programs leading up to the 2010 Olympics.*

Status: ActNow BC (formerly known as Healthy BC 2010) is a health and wellness platform launched by the Government in March 2005 to lead the way in North America in healthy living and physical activity and to make B.C. the healthiest jurisdiction to ever hold the Olympic and Paralympic Games.

Coordinated across all the government ministries, it is a multi-year, multidisciplinary effort to create policies, program and services that motivate British Columbians to:

- eat a healthier diet
- become more physically active
- maintain healthy weights
- reduce, quit or avoid tobacco use
- make healthy choices during pregnancy

Recommendation #20: *An effective injury surveillance system in B.C. should be established.*

Status: The Ministry of Health has funded the BC Injury Research & Prevention Unit (BCIRPU) to establish an Intentional Injury Surveillance Network focusing on child and youth injuries.

The BC Falls Prevention Coalition has been developing a standard of data collection for falls surveillance with support from Population Health and Epidemiology, Population Health & Wellness Division, Ministry of Health.

There are plans to improve injury surveillance within emergency departments with the introduction of the BC ED Reporting Pilot Project (using the National Ambulatory Care Reporting System (NACRS)) within selected sites across B.C.

Recommendation #21: *The need for injury prevention research should receive a higher profile.*

Status: The Ministry of Health has increased its funding allocation to the BC Injury Research & Prevention Unit (BCIRPU) to $616,500 per annum and has established a 5-year funding arrangement (2005-2010).

The Ministry has submitted letters of support for large injury prevention research grant proposals and three of these have resulted in successful CIHR ($100,000) grants.

The Ministry, through the BCIRPU, is involved in a $300,000 grant from the Population Health Fund through the Public Health Agency of Canada to develop a falls prevention curriculum.

Recommendation #22: *That the B.C. government lobby the federal government and the new Public Health Agency of Canada for a national strategy for injury prevention.*

Status: *Ending Canada's Invisible Epidemic: A National Strategy for Injury Prevention* is a proposed national strategy that was launched in October 2005 by Smartrisk with funding from the Insurance Bureau of Canada. The B.C. Minister of Health has been approached to support the implementation of the strategy, to be adopted and funded by the federal government. A specific website has been established as a call to action to the federal government: *www.timeforaction.ca*.

Recommendation #23: *The Committee recommends that initiatives that improve chronic disease management and patient self-care continue to receive strong support in the province.*

Status: Planning is underway to transfer the BC HealthGuide Program, including BC NurseLine, to the Emergency Health Services Commission. Under the future mandate of the Commission, the BC HealthGuide Program will be expanded and strengthened to support a comprehensive approach to self-care and health system navigation, empowering consumers to make the right health decisions for themselves and their families. Other initiatives to improve chronic disease management and patient self-care are outlined in the following recommendation.

Recommendation #24: *The Committee supports creative medical models that promote chronic disease management, primary health care teams, and feature alternate methods of physician remuneration. The voluntary option for doctors to choose to work in these new practice models should be promoted across the province.*

Status: The Ministry of Health is actively working to identify and develop innovative ways to more effectively address chronic disease management and the primary health care needs of British Columbians.

- The Ministry's Chronic Disease Management and Primary Care Renewal Branch has developed and implemented a new, blended funding model to encourage physicians to work in an expanded team practice model offering a broader range of health care services.
- Through its Physician Human Resource Management Branch, the Ministry expects innovations through the recently negotiated tentative agreement with the BCMA which commits both parties to review and adjust physicians alternate funding rates. The Ministry has communicated to the BCMA its intent to support adjustments which would facilitate switching from fee-for-service to contract based compensation, incorporating greater flexibility for the physician's practice, identified deliverables and that revenue neutrality would be one of the guiding principles. In addition, as part of the new agreement, BC general practitioners will continue to receive annual incentive payments for providing diabetes and

congestive heart failure care in accordance with clinical guidelines recommendations. As part of this agreement the annual incentive payment rates have been increased from $75 to $125 per patient, and a $25 payment for hypertension has also been introduced. The Ministry's objective is to remove physician compensation concerns as potential barriers to developing and implementing new, innovative health care delivery models, which could improve the delivery of primary health care and chronic disease management services for British Columbians.

- In its continued support of patient self-management, in 2006/07 the Ministry awarded a $1,000,000 grant to the University of Victoria Centre on Aging, to continue its delivery of the peer-led Patient Chronic Disease Self-Management Program across the province. The Ministry also awarded a $500,000 grant to the BC College of Family Physicians for the province-wide implementation of the Office Based Self-Management program, which provides physician professional development on how to effectively coach their chronically ill patients in setting self management goals.
- The Ministry has also allocated funds to B.C.'s health authorities to support their work in transforming B.C.'s primary health care sector. This work includes continued province-wide implementation of the Expanded Chronic Care Model for improved health outcomes for people living with chronic illnesses.

Recommendation #25: *The Committee recommends the early childhood mapping project be used as an evaluation framework for progress in addressing early childhood development issues. The maps should be updated at regular intervals.*

Status: The *Human Early Learning Partnership (HELP)*, at the University of British Columbia, will be evaluating hearing, dental, and vision programs with the intention of linking the results with the Early Development Instrument maps. These maps are updated as soon as new data is available, approximately every two years.

The Ministry of Health, along with the Ministries of Children and Family Development, Education, and HELP, participates in the *BC Healthy Child Development Alliance,* which is supportive of common evaluation frameworks for service provision.

Recommendation #26: *The Committee recommends that the health care sector be utilized more effectively to take a proactive role in the early identification and treatment of early childhood problems. In addition, children who are identified must be able to effectively access proven and effective services to treat the problem.*

Status: Government has developed an integrated, cross-ministry strategy for addressing dental, hearing, and vision concerns in the early childhood years (birth to five years). The status of the programs are as follows:

- The provincial early newborn hearing program being implemented through the Provincial Health Services Authority and the regional health authorities.
- Public health dental programs and screening are being implemented in regional health authorities.

- A Kindergarten vision screening program will be phased in starting September 2007.

Other initiatives relating to early childhood development are:

- An early childhood development (ECD) evidence paper being developed to articulate public health's core function with respect to ECD.
- *Toddler's Next Steps: A Best Chance Guide to Parenting your Six Month to Three Year Old* – this publication is currently being updated, with a planned distribution in June 2007.

Recommendation #27: *The Committee recommends that the B.C. government examine the options for establishing 211 in the province and move quickly to facilitate the most effective and cost-efficient method.*

Status: In 2005, the Premier committed at UBCM to develop a work plan for implementation of a 211 service and to report back to UBCM at this year's annual general meeting, the Union of British Columbia Municipalities Conference. A steering committee, led by the Ministry of Labor and Citizens' Services and the United Way have developed an implementation plan, including resources required for a 211 service in British Columbia and ways of leveraging existing resources and Government initiatives. The final plan, which went public at the UBCM conference, is with Government for decision regarding funding implications.

Recommendation #28: *The Committee recommends that the BC Progress Board be asked to permanently measure health and wellness indicators along with economic indicators to enable a more balanced and complete picture of our genuine progress in the province.*

Status: The BC Progress Board concurs with the recommendations of the Committee. Established in July 2001, the BC Progress Board benchmarks B.C.'s performance on measures of economy, innovation, education, environment, health and social performance over time and relative to other jurisdictions. The Board also provides strategic advice on ways to improve provincial performance.

Since its inception, the BC Progress Board has tracked British Columbia's performance on top-line health outcome measures. Volume I of the Progress Board's 2005 fifth annual benchmarking report, "Comparing BC's Performance - Reaching Our Potential", contains the following health outcome indicators within the core measurement framework:

- Life expectancy at birth,
- Cancer mortality,
- Cardio-vascular disease mortality,
- Infant mortality, and
- Potential years of life lost.

All five indicators are also rolled up into a health outcomes index. In addition, the indicator of low birth weight newborns is tracked as a measure of social condition elsewhere within the report and is one indicator in the composite social condition index.

In addition, there are other supplemental measures and additional health information contained within Volume I of the fifth annual benchmarking report. These include:

- Comparative wait times,
- Health care spending and outcomes,
- Health risk factors, and
- The importance of predictive and preventative health care.

Volume II of "Comparing BC's Performance - Reaching Our Potential" examines a selection of indicators on an urban-rural basis and by health authority within the core measurement framework, which consists of:

- Cancer mortality,
- Life expectancy at birth, and
- Low birth weight newborns.

In addition, the following is included as a supplemental measure:

- Mortality from cardiovascular disease (by health authority).

Recommendation #29: *The Committee recommends that both the provincial and federal government examine modernizing the tax structure and amend tax policies, including establishing tax credits, to ensure tax policies are fair and equitable, promote strong and healthy families, childhood development and health and wellness in our society.*

Status: This recommendation has been forwarded to the Ministry of Finance for review.

Appendix B: The Cost of Obesity and Inactivity: A Review of Alternative Estimates

As the government grapples with an apparently inexorable climb in health care costs, it is appropriate to ask "what is the cost of obesity?" as one way to assess the resources one might commit to combat it.

Some experts are inclined to bold estimates of the impact of inappropriate life styles on disease. Authoritative sources suggest that as much as 80 percent of coronary heart disease, up to 90 percent of Type 2 diabetes, and more than half of cancers could be prevented through lifestyle changes, such as proper diet and exercise (IBM, 2006). Since coronary disease, cancer, and diabetes rank as the huge killers in our society, affixing such a high causal proportion to diet and exercise must attract our attention.

The cost of obesity and its associated condition, inactivity, may be considered at three levels:

1. The *direct cost*, as impacting the incidence of disease and physical ailments, and, as a consequence, physicians and nurses, pharmaceuticals, the total cost of hospital care, diagnostic procedures, and expenditures for care in institutions, including related overheads.
2. The *indirect cost*, as impacting population morbidity, which in turn results in an economic loss to society, which can be estimated through the present value of lost future production (pursuant to the conceptual approach adopted by Health Canada (1998) from incapacitation or death.
3. The *societal cost,* as measured by longevity and health improvements as forms of social progress highly valued by our population, but not captured by economic accounts.

It may be noted that in assessing the costs of obesity and inactivity, various analysts' estimates of direct costs and of indirect costs are roughly equivalent in magnitude. In other words, the total *economic* cost to society might be very crudely approximated by considering the direct cost and doubling it.

Insofar as the broader *societal* impact is concerned, one may infer from the data that if, as some predict, mortality will surely increase due to obesity and inactivity, then a crude approximation of societal costs through our lower well-being might be achieved by taking total direct and indirect costs and doubling or trebling that sum again.

Regardless of the validity of these rather speculative estimates, it is clear that the annual cost to the health care system of obesity and inactivity is high and rising. Potential societal costs add ominously to the total. Total annual costs may be measured in the several billions of dollars range in the future, which is accuracy enough to warrant urgent action.

The Cost Estimates in Detail

Various authorities have attempted to measure the costs to the health system of obesity and of obesity's handmaiden, inactivity. These estimates are typically based on current readings of disease incidence, and current measures of obesity and inactivity. They are not particularly designed to measure longer-term cause and effect, and could therefore tend to understate cause and cost.

(a) The 2004 Report of the Select Standing Committee on Health

In 2004, the B.C. Legislature's Select Standing Committee on Health published the following estimates of the direct and indirect costs to British Columbia of various diseases and their attributes. These data were derived from previous research conducted for the B.C. Ministry of Health by R. Coleman of the Nova Scotia based consulting group, GPI Atlantic (Coleman, 2001).

Figure 1. Cost Summary Table

	Estimated Direct Health Costs (BC) per year	Estimated Indirect Costs (BC) per year	Estimate direct health savings with modest improvement
Obesity	$380 million	$350-$450 million	$38 million
Physical Inactivity	$187 million	$236 million	$16.1 million

The above refer to costs for persons of all ages combined. The Committee had been asked to estimate potential health cost savings attributable to lifestyle improvements, specifically among children and youth. However, they reported this was not an easy estimate to make, since ill health from lifestyle factors may take 40 to 50 years to develop. They concluded this long timeframe prevented accurate cost assessments. They also reported that few economic studies had been carried out accurately tracking the costs and savings of children and youth into their adult years.

(b) The 2005 Provincial Health Officer's Report

In his recent annual report (Kendall, 2006), the Provincial Health Officer frequently cited research by R. Coleman for the provincial health ministry (Coleman, 2001). These are the numbers cited in the Select Standing Committee on Health's report above.

In his most recent report (Kendall, 2006), the Provincial Health Officer suggested that these data (**Coleman, 2001**) significantly under-estimated the true costs of obesity due to definitional changes on what constitutes obesity based on body mass index.

(c) Healthy Living Alliance

When productivity losses due to obesity, including premature death, absenteeism and disability, are combined, it has been suggested that the total cost of obesity to the British Columbia economy is between $730 million and $830 million a year — equal to 0.8 percent of the province's Gross Domestic Product (GDP) (BC Healthy Living Alliance 2005).

(d) Dr. Warshawski

Tom Warshawski MD, Head of Pediatrics at Kelowna General Hospital and a Director of the Childhood Obesity Foundation, presented data to the Committee suggesting that British Columbia incurred obesity related annual health care costs of $422 million. (Warshawski, 2006)

(e) British Columbia Medical Association

The British Columbia Medical Association (BCMA) maintains an independent analytical staff well versed in health economics. At the request of the Committee, BCMA analysts assessed the direct and indirect costs of overweight and obesity, as well as the direct and indirect cost of inactivity (Hulyk and Aikman, 2006). Their projections encompassed annual cost numbers from 2007 until 2020. Their projections were:

- Total obesity costs in British Columbia are approximately $563 million dollars. By 2015 this figure is expected to rise to $852 million. This assumes obesity rates do not worsen, which is an assumption that may be challenged.
- The BCMA estimates inactivity costs British Columbia $691 million today, but by 2015 this figure will increase to just over $1.0 billion. Again, this assumes inactivity does not increase, but they point out that in B.C., inactivity is in fact rising over time.
- Of these, approximately 40 percent are judged to be direct health system costs, pursuant to the Health Canada definition.

BCMA analysts point out that one cannot simply add their obesity cost estimates to their inactivity cost estimates, since there is an unmeasured overlap of incidence between the two. However, they conclude that the combination of inactivity and obesity in British Columbia certainly generates a cost sum greater than $700 million a year.

They also gave the Committee their estimates of cost sensitivity to small changes in the incidence of obesity and inactivity. If we can reduce inactivity rates from their current 40 percent by only five percentage points, to 35 percent, then we could potentially save a cumulative $1.3 billion between 2007 and 2020. If we can reduce obesity from its current 11.5 percent by a mere 1.5 percentage points, to ten percent, then the province could save a cumulative $1.2 billion over that same time interval.

The BCMA inactivity cost forecast is projected on the basis of seven conditions related to inactivity:

- Coronary heart disease
- Stroke
- Hypertension
- Colon cancer
- Breast cancer
- Type 2 diabetes

- Osteoporosis

The BCMA obesity cost forecast is projected on the basis of eight conditions associated with obesity:

- Coronary heart disease
- Stroke
- Hypertension
- Colon cancer
- Postmenopausal breast cancer
- Type 2 diabetes
- Gall bladder disease
- Osteoporosis

Since this is not a comprehensive list of the medical conditions associated with and aggravated by inactivity or by obesity, BCMA analysts point out that the cost projections are conservative.

The foundation of the BCMA estimate is an updating of the model developed by Katzmarzyk and Janssen (2004), which is a very comprehensive examination of the costs of physical inactivity and obesity in Canada as estimated by a long list of researchers.

Finally, BCMA economists also alluded to the fact that obesity and inactivity have direct cost implications on the health system that are potentially more severe in the long term than tobacco's direct cost to the health system. The reason is the high mortality of tobacco users; whereas the obese and the inactive tend to develop chronic diseases costly to treat over the longer term.

(f) Ministry of Health

At the request of the Committee, the British Columbia Ministry of Health conducted a special examination of the cost of obesity based on updated 2006 estimates of the incidence of obesity and overweight, Community Health Survey data were linked to hospital, Medical Services Plan and Pharmacare cost data for 2003/2004 and 2004/2005 (Danderfer, 2006).

Ministry analysts estimated that the direct costs from overweight and obesity were $450 million in 2006. Assuming no changes in prevalence rates, direct costs were projected to rise to $525 million in 2011 and $585 million in 2016.

Indirect costs were estimated to be $410 million in 2006. The total economic burden was, therefore, an estimated $860 million.

Assuming no change in prevalence rates, the economic burden of obesity in five years and ten years would rise to $1 billion and $1.1 billion respectively.

Ministry analysts concluded that the cost of inactivity — which would be additional to the above cost burden — could not be reliably estimated from the available data.

Societal Benefits and Costs

The previous paragraphs (a) through (f) deal with direct and indirect cost impacts as developed by various authorities. A third and supplementary layer of the "cost" of obesity and inactivity, involves an estimate of the value of gains or reduction in general welfare, attributable to changes in longevity as that impacts the well-being of society.

Murphy and Topel (2005) argue that rising longevity and health improvements are a form of economic progress. However, traditional measures based on national income accounts make no attempt to account for this source of rising living standards, and, therefore, underestimate improvements in well-being.

They estimate that historical gains to individual welfare due to increased longevity have been enormous. By their calculation, between 1970 and 2000 increased longevity due to advances against major disease added uncounted value equal to about half of the average annual GDP.

Applying that estimate to British Columbia's current GDP yields social benefits of approximately $2.5 billion annually, attributable to increasing longevity. (Increased longevity at birth increased by an order of magnitude between five and 15 years over these 30 years.)

Contrariwise, one may infer, the social penalty from comparable increases in mortality risk would be of similar dollar magnitude.

The Committee has not surveyed estimates of the reduction in longevity that might be expected as a consequence of obesity and inactivity in British Columbia. However, we note that several expert witnesses appearing before the Committee asserted that this generation will be the first to experience a reduction in longevity due to obesity and inactivity.

The societal cost or benefit of changes in longevity, as conceptualized by Murphy and Topel, should be added to the direct and indirect economic burdens of obesity and inactivity as measured by data captured in the existing measures of British Columbia's GDP.

Conclusions

The direct cost of the British Columbia Government's health budget in 2006-2007 is approximately $11.9 billion. Under the rule of thumb used by some experts, this implies that British Columbians may be spending in the range of $18 billion annually on health services.

Against these totals, one may consider — as presented in the estimates surveyed herein — the combined bill for inactivity and obesity as probably being in the range of $1 billion annually, before consideration of the broader societal values that are at stake.

The Committee concludes that inactivity and obesity constitute a highly significant fiscal, economic, and societal drain upon the well-being of our province — being all the more significant because these costs are entirely preventable merely through simple low-tech changes in lifestyle, and are not reliant upon the invention and application of costly new miracle drugs or high-tech therapies not yet conceived.

Since the carryover of obesity and inactivity from childhood to adulthood is high, and since the carryover of opposite traits also seems true, this augurs for an aggressive strategy of reducing childhood obesity and inactivity as the first priority if we wish to tackle obesity and inactivity among those later in life.

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Public Health Agency of Canada, Policy Research Division. (1998). "Health Canada," Economic Burden of illness in Canada, Ottawa, 1998. http://www.phac-aspc.gc.ca/publicat/ebic-femc98/index.html

Warshawski, Tom. Childhood Obesity Foundation, power point presentation to the Select Standing Committee on Health, B.C. Legislature, Vancouver, B.C. 2006.

Appendix C:
Public Hearings Witness List

Action Schools! BC, Dr. Heather McKay, 12-Jun-06 (Vancouver)

Active Health Consulting, Joy Norgard, 17-Oct-06 (Vancouver)

C. Anderson, 17-Oct-06 (Vancouver)

D. Anderson, 17-Oct-06 (Vancouver)

M. Anfield, 17-Oct-06 (Vancouver)

H. Angelo, 18-Oct-06 (Williams Lake)

Annexation Party of BC, Gordon Brosseuk, 17-Oct-06 (Vancouver)

N. Aulin, 18-Oct-06 (Fort St. John)

L. Barkley, 17-Oct-06 (Campbell River)

BC Cancer Agency, Terryl Bertagnolli, 17-Oct-06 (Campbell River)

BC Health Living Alliance, Janice Macdonald, Suzanne Allard Strutt, 12-Jun-06 (Vancouver)

BC School Fruit and Vegetable Snack Program, Ann Britton, 04-May-06 (Victoria)

E. Benson, 17-Oct-06 (Campbell River)

Meghan Best, 17-Oct-06 (Campbell River)

I. Blyleven, 17-Oct-06 (Campbell River)

J. Bortolussi, 18-Oct-06 (Williams Lake)

British Columbia Medical Association, Dr. Michael Golbey, Rob Hulyk, Dr. Bill Mackie, 27-Apr-06 (Victoria)

Canadian Restaurant and Foodservices Association, John Bishop, Warren Erhart, 05-Sep-06 (Vancouver)

Canadian Restaurant and Foodservices Association, Western Canada, Mark von Schellwitz, 05-Sep-06 (Vancouver)

Cariboo-Chilcotin Child Development Centre Association, Nancy Gale, 18-Oct-06 (Williams Lake)

G. Chadwick, 17-Oct-06 (Campbell River)

Childhood Obesity Foundation of British Columbia, Dr. Tom Warshawski, 12-Jun-06 (Vancouver)

Columneetza Secondary School, Jack Burgar, 18-Oct-06 (Williams Lake)

Concerned Children's Advertisers, Cathy Loblaw, 05-Sep-06 (Vancouver)

Corporation of Delta, Parks, Recreation and Culture, Jennifer Taylor, Bess Ribeiro, 17-Oct-06 (Vancouver)

L. Crossfield, 17-Oct-06 (Vancouver)

D. Decolongon, 17-Oct-06 (Vancouver)

Marie Demers, 12-Jun-06 (Vancouver)

Dietitians of Canada - B.C. Region, Janice Macdonald, 11-May-06 (Victoria)

District of Saanich, Deborah LeFrank, 27-Apr-06 (Victoria)

Duncan Cran Elementary, Dillan Lazaroff, 18-Oct-06 (Fort St. John)

FUELing Catering, Kimberley Daw, Helen Dolmat, 17-Oct-06 (Vancouver)

K. Fantham, 18-Oct-06 (Fort St. John)

E. Faulkner, 17-Oct-06 (Campbell River)

Dr. Glenn Fedor, 18-Oct-06 (Williams Lake)

A. Fell, 18-Oct-06 (Fort St. John)

Food and Consumer Products of Canada, Phyllis Tanaka, 05-Sep-06 (Vancouver)

Stacy Friedman, 17-Oct-06 (Vancouver)

C. Girard, 17-Oct-06 (Campbell River)

K. Graham, 17-Oct-06 (Campbell River)

B. Granger, 18-Oct-06 (Williams Lake)

N. Guthrie, 17-Oct-06 (Campbell River)

Head Start Tennis School Program, John Yalowica, 17-Oct-06 (Vancouver)

S. Helgason, 18-Oct-06 (Williams Lake)

Dina Howell, 17-Oct-06 (Vancouver)

Dr. Don Hunter, 02-May-06 (Victoria)

Insurance Corporation of British Columbia, Safer City Program, Diane Mackay, 27-Apr-06 (Victoria)

Interior Health Authority, Tatjana Bates, 18-Oct-06 (Williams Lake)

Intermunicipal Recreation Committee and Health and Recreation Alliance Committee, Lorna Curtis, Sandy Clarke, Carol Tickner, 11-May-06 (Victoria)

Dr. Carl Ivey, 17-Oct-06 (Campbell River)

B. Jeune, 17-Oct-06 (Campbell River)

A. Jhuzett Neyra, 17-Oct-06 (Vancouver)

B. Jorgensen, 17-Oct-06 (Campbell River)

R. Kerr, 17-Oct-06 (Campbell River)

A. Khaledi, 17-Oct-06 (Vancouver)

J. Kouwenhoven, 18-Oct-06 (Fort St. John)

N. Kupchanko, 18-Oct-06 (Fort St. John)

J. Lam, 17-Oct-06 (Vancouver)

N. Lawrence, 17-Oct-06 (Campbell River)

A. Learmonth, 17-Oct-06 (Vancouver)

Graham Lindenbach, 17-Oct-06 (Campbell River)

V. Lo, 17-Oct-06 (Vancouver)

E. Mclean, 17-Oct-06 (Campbell River)

M. McMahen, 18-Oct-06 (Williams Lake)

Ministry of Agricultural and LandsBrent Warner, 04-May-06 (Victoria)

Ministry of Education, Dr. Emery Dosdall, Bobbi Plecas, 16-May-06 (Victoria)

Ministry of Health, Dr. Penny Ballem, 04-May-06 (Victoria)

Ministry of Tourism, Sport and the Arts, Graham McKay, John Mills, 09-May-06 (Victoria)

Ministry of Transportation, Alan Callander, Mike Proudfoot, 09-May-06 (Victoria)

T. Mohr, 18-Oct-06 (Williams Lake)

J. Morrison, 18-Oct-06 (Fort St. John)

C. Nguyen, 17-Oct-06 (Vancouver)

North Peace Secondary School, Juliana Garcia, 18-Oct-06 (Fort St. John)

Northern Health Authority, Dana Malloy, Anel Meintjes, 18-Oct-06 (Fort St. John)

L. Odendahl, 18-Oct-06 (Fort St. John)

Office of the Provincial Health Officer, Dr. Chris Mackie, Dr. Eric Young, 16-May-06 (Victoria)

E. Palibroda, 18-Oct-06 (Fort St. John)

J. Pathamanathan, 17-Oct-06 (Vancouver)

Kristina Pikksalu, 17-Oct-06 (Vancouver)

Y. Pinazo, 17-Oct-06 (Vancouver)

Provincial Health Services Authority, Dr. Bob Armstrong, Dr. John Millar, Brian Schmidt, 02-May-06 (Victoria)

M. Ralph, 17-Oct-06 (Campbell River)

Refreshments Canada, Calla Farn, 05-Sep-06 (Vancouver)

A. Robertson, 17-Oct-06 (Campbell River)

R. Sam, 18-Oct-06 (Williams Lake)

S. Sam, 17-Oct-06 (Campbell River)

Sauder School of Business, University of British Columbia, Dr. Charles Weinberg, 12-Jun-06 (Vancouver)

Save Our Northern Seniors' Society, Ruth Ann Darnall, Jean Leahy, 18-Oct-06 (Fort St. John)

School District No. 41 (Burnaby), Tammy Wirick, 17-Oct-06 (Vancouver)

Simon Fraser University, Faculty of Health Sciences, Dr. Michael Hayes, 02-May-06 (Victoria)

T. Sloan, 18-Oct-06 (Fort St. John)

K. Smith, 18-Oct-06 (Williams Lake)

Ryan Smith, 17-Oct-06 (Vancouver)

D. Solhjell, 17-Oct-06 (Campbell River)

L. Solomon, 18-Oct-06 (Williams Lake)

R. Stickel, 18-Oct-06 (Fort St. John)

K. Stobbe, 17-Oct-06 (Campbell River)

G. Stump, 18-Oct-06 (Williams Lake)

Success By 6, Lynn Locher, 18-Oct-06 (Fort St. John)

Bob Tam, 17-Oct-06 (Vancouver)

J. Tazelaar, 18-Oct-06 (Williams Lake)

D. Tenale, 18-Oct-06 (Williams Lake)

M. Thompson, 17-Oct-06 (Campbell River)

I. Tupas, 17-Oct-06 (Vancouver)

J. Van, 17-Oct-06 (Vancouver)

Vancouver Coastal Health Authority, Barbara Crocker, Dr. Heather Manson, Dr. Brian O'Connor, Kathy Romses, Kay Wong, 20-Jun-06 (Vancouver)

P. Walker, 17-Oct-06 (Campbell River)

S. Wallin, 18-Oct-06 (Fort St. John)

L. Ward, 18-Oct-06 (Fort St. John)

Wasserman & Partners Advertising, Andeen Pitt, Alvin Wasserman, 12-Jun-06 (Vancouver)

W. Westbrook, 17-Oct-06 (Campbell River)

Jim World, 18-Oct-06 (Williams Lake)

D. Wu, 17-Oct-06 (Vancouver)

F. Wu, 17-Oct-06 (Vancouver)

R. Wu, 17-Oct-06 (Vancouver)

YM-YWCA of Greater Victoria, Jennie Edgecombe, 11-May-06 (Victoria)

A. Ziada, 17-Oct-06 (Vancouver)

Appendix D:
Written Submissions

Annexation Party of BC, Gordon Brosseuk, HC-2006-21

Patti Bacchus , HC-2006-27

BC Childrens Hospital, Centre for Healthy Weights: Shapedown BC, Arlene Cristall, Dr. Mary Hinchliffe, Sue Ross, Zen Simces, HC-2006-28

BC Childrens Hospital, Healthy Buddies Program, David Barnum, Valerie Ryden, HC-2006-49

Clare Marie Belanger, HC-2006-14

Agnes Elnor Bergen, HC-2006-37

Petra Blackmore, HC-2006-20

British Columbia Medical Association, Margaret MacDiarmid, HC-2006-42

H.R. Butler, HC-2006-26

Joan Bywater, HC-2006-25

Canadian Sugar Institute, Nutrition and Scientific Affairs, Randall Kaplan, HC-2006-47

Diana Cant, HC-2006-19

D. P. Carlson, HC-2006-41

City of Coquitlam, Geri Briggs-Simpson, HC-2006-46

Holly-Anne Dobb, HC-2006-7

Ella's Finest, Nancy and Paul Martinolich, HC-2006-39

FUELing Catering, Helen Dolmat, Kimberley Daw, HC-2006-6

Al Fisher, HC-2006-33

Fraser Health, in motion, Wendy Creelman, HC-2006-9

Gary J. Goebel, HC-2006-5

Kelly Harris, HC-2006-15

Heart and Stroke Foundation of BC & Yukon, Mark Collision, HC-2006-29

Sari Huhtala, HC-2006-23

iQuest Performance Inc., Greg Gerrie, HC-2006-36

Maggie Kissling, HC-2006-8

Emilio Landolfi, HC-2006-44

Donna Legere, HC-2006-43

Zoë Levitsky, HC-2006-31

Lochside Elementary School (representing 20 students), Jennifer Alberring, HC-2006-30

Devinder Singh Maan, HC-2006-32

Brenda Mattman, HC-2006-48

Nova Scotia Agricultural College, Department of Business and Social Sciences, Dr. J. Stephen Clark, HC-2006-35

Lee Ouimet, HC-2006-38

Ted Schenkeveld, HC-2006-4

Brenda Seaman, HC-2006-16

Mary Sherlock, HC-2006-10

Terry David Silvercloud, HC-2006-3

Simon Fraser University, Dr. Mike Dobson, HC-2006-12

Sir Charles Tupper Secondary (representing 18 students), Iona Wilshaw, HC-2006-34

Daphne Smithard, HC-2006-11

Kevin Tozer, HC-2006-1

University of British Columbia, Department of Health Care and Epidemiology, Kay Teschke, HC-2006-17

University of British Columbia, Learning Exchange, Shayne Tryon, HC-2006-13

University of Northern British Columbia, Dr. Hanh Huynh, HC-2006-24

Dr. A. N. T. Varzeliotis , HC-2006-40

Brenda Wallace, HC-2006-22

Don Weber, HC-2006-18

Gunduz and Gulgun Yerebasmaz, , HC-2006-2

Yoga Outreach, Sarah Holmes, HC-2006-45