



Reality Check (Part 2): The Health of Our Youth

Mary Anne Yurkiw, RD, M.Sc.
Project Manager, Beyond an Apple a Day

Key Messages

- Alberta students in grades 7 and 8 are not eating well enough or being physically active enough to maximize health and well being.
- The BAAAD study identified barriers youth, along with their parents and their schools, face in adopting a physically active lifestyle and proper nutrition.
- Health-care professionals, educators and parents must work together to reinforce healthy eating and active living practices for youth and to prevent overweight and obesity.

This issue of *Nutrition File*™ for Health Professionals was reviewed by members of the BAAAD Research Group. Their contributions are greatly appreciated.

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RETURN UNDELIVERABLE CANADIAN
ADDRESSES TO:
ALBERTA MILK
14904 - 121A AVENUE
EDMONTON AB T5V 1A3
email: aventers@albertamilk.com

In February 2004, Alberta Milk sponsored the Nutrition File™ Seminar **Reality Check: The Health of Alberta Youth** in Edmonton and Calgary, highlighting the results of the Beyond an Apple a Day (BAAAD) project. BAAAD, developed and coordinated by Alberta Milk and funded by Health Canada, was designed to provide insights on what junior high school students are eating, how much they are exercising and how principals, parents and district superintendents see the issue of health, including perceptions about policies related to physical activity and nutrition.

The BAAAD Research Group included Alberta Health and Wellness, Alberta Learning, Ever Active Schools, Health Canada, University of Alberta (Department of Agricultural, Food and Nutritional Sciences and the Faculty of Physical Education and Recreation) and Alberta Community Nutritionists. Ethics approval for the quantitative surveys was granted by the Human Research Ethics Board, Faculty of Agriculture, Forestry and Home Economics, Faculty of Physical Education & Recreation, University of Alberta (U of A).

Nutrition Research Centre, U of A, spoke on the nutrition findings. Dr. McCargar's research interests include obesity and type 2 diabetes and the benefits of lifestyle behaviour change on risk factor reduction.

Dr. Dru Marshall, PhD Associate Dean and Professor, Faculty of Physical Education, U of A, spoke on the physical activity findings. Dr. Marshall has served as coordinator of the Provincial Fitness Unit, a researcher with the Alberta Centre for Active Living and as a representative on the Provincial Fitness Accreditation and Certification Board. Her specific research interests include childhood obesity and athlete health.

Katherine Loughlin, P.H.Ec., CAAP, Manager, Market Development, Alberta Milk, spoke on youth messaging. Ms. Loughlin holds a master's certificate in marketing communications management from York University. She manages all aspects of generic dairy marketing communications for Alberta Milk and supervises supporting programs including nutrition education and the school milk programs.

Mary Anne Yurkiw, RD, M.Sc. Nutrition Educator, Alberta Milk and project manager for the BAAAD project, provided an introduction to

Speakers

Dr. Linda McCargar, RD, PhD Professor, Department of Agricultural, Food and Nutritional Sciences and Director of the Human

the project including previous research. The literature review was summarized in the Reality Check: Part I (Nutrition File™ for Health Professionals, Spring 2004).

Student Research

A web-based survey was used to collect information about food intake, physical activity and self-reported height and weight from over 700 junior high students in 31 Alberta schools. There were more females (58 per cent) than males (42 per cent); 59 per cent of students were in grade 7 and 41 per cent were in grade 8; the most common age was 13 years (45 per cent).

Nutrition findings:

Dr. Linda McCargar

The nutrition portion of the student survey included a 24-hour recall and questions on food behaviours and beliefs.

The proportion of intake from the energy nutrients fell within the recommendations for carbohydrate, protein and fat and was similar for all ages.

Total caloric intakes were lower than anticipated.¹ For males,

intakes ranged from 2305-2404 (depending on age) and for females, 1734-2044 kcals. Older girls tended to have lower energy intakes.

Although over half of each gender group said they were “definitely not” trying to lose weight; another 15 per cent of each group said they “kind of” were.

Less than 50 per cent of girls consumed the **minimum** recommended levels for three of the four food groups; for Vegetables and Fruits they met the minimum recommendation. The median intakes of the boys met or exceeded all of the minimum food group recommendations.

The first analysis included four nutrients; each nutrient represented a specific food group. A significant proportion of the boys and girls were below the estimated average requirement for niacin, iron and folic acid and below the adequate intake for calcium. The proportion of students below the requirements increased with their age; girls’ intakes tended to be more inadequate than boys’ for each nutrient, and at each age group.

Most students ate breakfast: 74 per cent of boys and 57 per cent of girls ate it every day; however, 11 per cent of girls ate breakfast only on weekends. Eating out was common—40 per cent of boys and 29 per cent of girls ate out at least 5 times a week at restaurants or take outs.

Conclusions: A proportion of adolescents in Alberta were not meeting their nutritional requirements, especially adolescent females.

Physical activity findings: Dr. Dru Marshall

The physical activity of students was assessed using a seven-day activity record and behaviour questions. Self-reports of height and weight were also collected. Total physical activity scores in metabolic equivalents (MET) were calculated. MET values = sum of (Time in each activity × MET value for that activity).²

Total physical activity scores declined with increasing age of the students; especially among girls. The decline was seen specifically in high and moderate intensity activities, while low intensity activities were relatively constant.

The more active students were most likely to be active in many ways: outside after school, on the weekend and by participating on sport teams in and out of school.

Cole cutoffs³ were used to assess the BMIs and rates of obesity and overweight. About three per cent of the sample was obese and 10 per cent was overweight, much fewer than anticipated. These low numbers may be due to inherent problems in self reports, especially among younger students and by rapid changes in height and weight during periods of accelerated growth.

Given these limitations, it is interesting to note that non-obese subjects were more active in general and they spent more time in vigorous activity.

Conclusions: Males were more active than females, activity levels declined as students got older and obese children tended to be less active than normal weight children.

Nutrition file™

The team of Alberta Milk Registered Dietitians are:

Lee Finell, MHSA, RD
Mary Anne Yurkiw, MSc, RD
Cindy Thorvaldson, MSc, RD
Charlotte Varem-Sanders, RD
Jennifer Michaelchuk, RD

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Phone: 1-800-252-7530, ext 319
Email: aventers@albertamilk.com

Policy Implications

Surveys of Principals, Superintendents and School Councils: Dr. Dru Marshall

An 11-page questionnaire was distributed to principals of all eligible schools, chairpersons of school councils, and all district superintendents. In all, 299 completed questionnaires were analyzed: 175 from Principals, 115 from School Councils and 19 from Superintendents.

Health of students was an important issue (73 per cent), but physical education curriculum issues were less important (50 per cent of respondents), and nutrition curriculum even less so (31 per cent). Schools were more likely to have policies and guidelines for physical activity (61 per cent) than for food or nutrition (35 per cent). Schools with elementary grades (elementary/junior high; K-12 schools) generally received less physical education than those with higher grades only.

Not all principals agreed that schools were responsible for instilling healthy food and physical activity habits; some felt that they had to deal with the symptoms. Others believed that they were part of the problem, especially with the food fundraisers and snack foods provided.

Less than half of principals and superintendents reported that their school actively fostered healthy eating behaviours among students. The most important influences on decisions related to physical activity and nutrition issues are the support of the principal and the practical benefit to the student. Opposition to

vending machines outweighed support by almost a two to one margin.

Conclusions: Challenges included educating parents on healthy food and activity habits and dealing with the low nutrient choices in the school vending machines.

Marketing

Effective Youth Messaging: Katherine Loughlin

In 2002, the Prairie Milk Marketing Partnership was formed to increase youth milk consumption. The following information combines a thorough review of available research as well as commissioned research into youth attitudes and behaviours.

Today's youth are populous enough to impact the boomer brands, hence the development of "kidfluence" and "pester power." From 1990 to 2000, youth advertising increased from \$100 million to in excess of \$2 billion.¹ Canadian tweens (the 11 and 12 year olds) have over \$1.8 billion in discretionary income, primarily from their last birthday or other major holiday, and allowances.² These tweens are growing up quickly; they are more sophisticated at a younger age.

This new market has led to the introduction of new products: Barbie manufacturers have *My Scene* dolls with extra-pouty lips and oversized eyes, *L'Oreal* and *La Senza* have youth lines, as do magazines such as *Vogue*, *Elle* and *People*. As rebellion and independence begin to surface, brands may be less important and being anti-brand can be a social statement.

For some youth, consuming media is a full-time job: 24 hours of TV each week and another 10-15 hours on the Internet and radio.³ These connections expose youth to more of life at a younger age. Youth are highly motivated by their senses (bigger, brighter, and faster) and the exploration of what is new.

Families are smaller in size than before; discretionary income varies between single parent and dual income households. Parents may try to bridge the generation gap and give more value to their children's requests, holding out only for the big battles.

Youth are maturing: physically, cognitively and morally; they are capable of reasoning, seeing beyond the concrete; and they are developing empathy. They are motivated by both friendship and freedom. Youth dislike being perceived as too young and they want to be in control; rebellion from parents and authority is ever more apparent.

Despite their individuality and independence, youth share traditional expectations. They are optimistic and expect to be successful. They are stressed by the same things that stress adults: the pressure to succeed, money, and time. Peer pressure is palpable: almost half of boys and over 40 per cent of the girls claim to be often influenced by others.⁴ As parental influence declines, peers play an increased role and at a younger age.

How can health educators incorporate these trends?

- ☛ Target youth specifically: they recall ads aimed at them and those older than themselves.
- ☛ Use strong creative executions that are fun, cool and relevant.
- ☛ Ask the youth around you what the hot websites are. Visit them to understand why they appeal.
- ☛ Surf the Internet to understand the medium and its language.
- ☛ Build your health messages on what kids already know—it will keep them interesting and relevant.
- ☛ Tap into peer group thought leaders for message reinforcement.
- ☛ Don't pretend you're not trying to sell an idea—it will destroy your credibility.
- ☛ Emphasize individuality, personal judgment, and developing individual morals and values.

Related Alberta Milk Resources

For Health Professionals and Educators:

Reality Check: A PowerPoint Presentation outlining the health of Alberta youth and what schools and parents can do to improve the situation

Reality Check: A Background Paper for Health Professionals and Educators summarizes the Beyond an Apple a Day research information on Alberta youth

Fact sheets:

Promoting Healthy Eating & Active Living in Youth: How Health Professionals Can Help

Promoting Healthy Eating & Active Living in Youth: How Teachers Can Help

Promoting Healthy Eating & Active Living in Youth: The Role of School Administrators

For Parents:

Nutrition File pamphlet: Healthy Tweens and Teens

To order a complimentary copy of any of these resources, please contact Debbie at daugustyn@albertamilk.com or 1-800-252-7530, ext 315. The resources for health professionals and educators are also available on our website www.albertamilk.com.

References

¹ See Reality Check (Part I): The Health of Our Youth. Nutrition File for Health Professionals, Spring 2004.

² Ainsworth, B. E., Haskell, W. L., Whitt, M. C. et al. (2000). Compendium of physical activities: An update of activity codes and MET intensities. *Medicine and Science in Sports and Exercise*, 32 (9) (Suppl.), S498–S516.

³ Cole, T.J., Bellizzi, M.C., Flegal, K.M., Dietz, W.H. (2000). Establishing a standard definition for child overweight and obesity worldwide: International survey. *BMJ*, 320, 1240-1243.

⁴ YTV Tween Study. Toronto: YTV, 2002.

⁵ YTV Tween Study. Toronto: YTV, 2002.

⁶ PMB 2003 Two year Readership Study. Toronto: Print Measurement Bureau, 2002.

⁷ Canada's Teens. Toronto: Stoddart, 2001.