



KELLOGG NUTRITION SYMPOSIUM 2005

Brought to you by the Team of Registered Dietitians & Nutrition Professionals at *Kellogg's*

The Health of School-Aged Children



Highlights of the 2005 Kellogg Nutrition Symposium
Presented in conjunction with the Dietitians of Canada
Conference in Toronto, Ontario, Friday, May 27, 2005



Together we can make a difference

Greg Peterson President and CEO

Kellogg Canada

Greg Peterson welcomed participants to the 2005 Kellogg Nutrition Symposium and expressed Kellogg's commitment to promoting children's healthy development in collaboration with partners like Dietitians of Canada. Kellogg Canada has a heritage of advocating for healthy lifestyles and supporting families, educators, health

professionals and government in their efforts to foster healthy food and lifestyle choices.

The 2005 Kellogg Nutrition Symposium brought together highly esteemed Canadian experts representing key sectors to share their perspectives on child health and successful healthy living strategies. Their presentations shed light on opportunities for all sectors to work together to help instil healthy eating and physical activity habits in Canadian children.

We Are All a Part of the Solution

The Honourable Judith Erola, PC

Canadian Institute of Child Health, Ottawa, ON

Nowhere is obesity more painful than in childhood and adolescence. Overweight children face greater challenge both physically and emotionally. But scientists are often at odds about diet, exercise, weight management and good health. This leaves parents having to sort through conflicting messages to help their

children develop healthy eating and activity habits that will last for life. Together we can work to find a unified voice and a clear message for Canadians.

It's clear that the daily living realities of years gone by made it much easier to be active and eat well. Taking a look at the past and how our lifestyles have changed over the years can help us find solutions to face today's challenges.



Physical Activity and the Health of Canada's Children: Past, Present & Future

Oded Bar-Or, MD, FACSM

Director, Children's Exercise & Nutrition Centre, McMaster University, Hamilton, ON

Inactivity is on the rise in North American children.

Despite programs to increase physical activity, composite research from the United States and Canada indicates there was a 15% decline in the number of children who were physically active on a regular basis during the 1990s. There are many possible reasons for this decline including:

- Technological incentives to stay indoors
- Safety concerns regarding outdoors
- Entry fees to parks
- Budgetary cuts for public sports venues
- Eroding prestige of school physical education

Physical activity and health are clearly linked in adults.

Research has established a strong link between physical inactivity and health in adults. Inactivity puts adults at risk for obesity, coronary heart disease, diabetes, the metabolic syndrome, hypertension, cancers and osteoporosis. Since these chronic

conditions are less likely to occur in early life, the relationship between health and physical activity levels is less clear-cut in children.

Physical inactivity is linked to obesity in children and youth.

One condition, for which a strong link has been established with low physical activity in children, is obesity. Since juvenile obesity is accompanied by various co-morbidities such as type 2 diabetes, high blood cholesterol and hypertension, physical inactivity is likely to increase the risk of such chronic conditions during childhood and adolescence.

Low physical activity is a major cause of the obesity epidemic.

While genetics and food intake may have influenced the prevalence of obesity, these causes are not the whole picture. Changes have occurred too rapidly to reflect genetic mutations and total energy intake has hardly changed. Thus low physical activity levels are likely a major reason for the dramatic increase in the prevalence of juvenile obesity and its co-morbidities in Canada.



Screen time increases the risk of juvenile obesity.

The risk of juvenile obesity increases five-fold in those who watch 21 or more hours of television compared to those who watch 6 hours or less per week.¹ Energy expenditure drops significantly during television viewing.² The metabolic rate decreased 10-15% in 8 to 12 year olds just by turning the television on.

An incremental approach to activity guidelines makes sense.

Many groups have proposed physical activity guidelines for children in the last decade. Most call for 30 to 60 minutes of physical activity of various intensities 3 to 5 days a week. The problem with these guidelines is that they are not evidence-based and most children are already this active. With this in mind, the Canadian physical activity guidelines use an incremental approach that assumes current activity levels are insufficient and recommends:

- Adding so many minutes of physical activity per day to what you are currently doing.
- Reducing inactive 'screen' time.
- Applying a gradual progression to both of these over time.



Examples of incremental approaches to physical activity:

- Canada's Physical Activity Guide for Children at www.paguide.com
- America on the Move at www.americaonthemove.org

The Bottom Line

Considering where children are at to begin with is the first step. From there, we can have a bigger impact using an incremental approach in recommending eating plans and activities that recognize and build on what children and their families are already doing.

References

1. Gortmaker SL, et al. J Am Diet Assoc, 1990; 90(9):1247-52, 1255.
2. Klesges RC, et al. Pediatrics, 1993; 91(2):281-6.



Social and Cultural Determinants of Child Health

Kim Raine, PhD, RD

Director, Centre for Health Promotion Studies, University of Alberta, Edmonton, AB

Social and economic environment is a major health determinant.

There is convincing evidence that social determinants of health, such as early childhood development, income, social environments and culture have a greater impact on health status than biology and health services combined. The current childhood obesity epidemic affects all sectors of our society, but is most dramatic among children living in poverty and in aboriginal and ethnic communities.

Food insecurity is a real concern for many Canadian children.

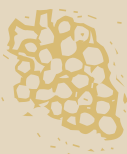
Food insecurity has been defined as 'the inability to acquire or consume an adequate diet of quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so'. In Canada, 40% of Food Bank users are children.¹ The prevalence of obesity is much higher among children living in families with incomes below the low income cut offs.²

Health behaviours are embedded in the environments we live in.

Although the eating and activity patterns of children living in poverty may be more likely to promote obesity than those of their higher-income counterparts, their behaviours are embedded in the environments in which they live. Children's environmental context is influenced by the social determinants of health including the economic, cultural and political context.

A complex array of factors that may impact child health:

- An increased per capita food availability of 500 calories per person in the 1990s.
- A steady decline in children's physical activity levels as they get older.
- Schools relying on vending for revenues as a result of cuts to public funding for education.
- Higher food costs in inner city, rural and northern communities, where incomes tend to be less.
- Greater access to fast food outlets in lower income areas.
- The low cost of energy dense foods such as potato chips and soft drinks compared to more nutritious choices.



Comprehensive school health programs are very promising.

Comprehensive school health programs are a promising strategy to improve child health. These programs include healthy school environments, health instruction, regular physical education classes, integrated health services, school food policies that are integrated in the family and community. School food policies that can have a moderate to high impact include approved menus for school meals, guidelines for bagged lunches, healthier choices for fund-raising and soft drink bans.



Canadian examples of comprehensive school health programs:

- CAPHERD Quality School Health
- Calgary Comprehensive School Heart Health - Alberta Learning
- Kahnawaake Schools Diabetes Prevention Project
- Annapolis Valley Health Promoting Schools

The Bottom Line

Canadian dietitians are involved in a number of initiatives to promote children's health. There are many other opportunities to influence policies that impact the determinants of child health. What other steps can we take?

References

1. Hunger Count, CAFB, 2004
2. National Longitudinal Survey of Canadian Youth 1998-99



Breaking Down the Barriers to Healthy Eating and Active Living: Overview of Successful Child Health Strategies

Andrew Pipe, CM, MD, LLD

Director, Prevention and Rehabilitation Centre, Ottawa Heart Institute, Ottawa, ON

We live in an 'obesogenic' environment.

Two very powerful social and cultural forces have impacted the obesity epidemic. The industrial revolution has resulted in a decrease in physical activity and the agricultural revolution has increased food availability. Low activity levels and high intakes of foods and beverages of little nutritional value and increasing portion sizes are key concerns. Canadian youth (10 to 16 years old) now rank 5th in the prevalence of overweight and obesity compared to 16 other countries around the world.¹ Current evidence indicates that 63% of obese school-aged children become obese adults.²

Physical Education programs can make a difference.

Physical Education (PE) programs in schools should be seen as an anchor piece for effective interventions for combating obesity. Increasing PE time to 5 hours a week could decrease the prevalence of overweight girls by 43%.³ A 10 week program with 28 minutes of PE per day, 5 days a week, yielded a small decrease of body fat (1.4%) in girls 7 to 11 years.⁴ A 2-year program involving 20 minutes of physical activity 7 days a week substantially reduced the body fat content of obese 11-year-old children in Japan without specific dietary intervention.⁵

We have solutions that can be implemented.

There are examples of programs that are working across the country. One of the best examples of a successful child health strategy is the Annapolis Valley Health Promoting Schools Project (AVHPSP) in Nova Scotia. The Annapolis Valley model ensures students engage in physical activity every day and involves a food program that makes healthy choices affordable, accessible and appealing.

The program has had a very significant impact with:

- 50% fewer overweight children
- 60% fewer obese children

Integrated Pan-Canadian Healthy Living Strategy

Claude Rocan, PhD

Director General, Centre for Healthy Human Development, Health Canada, Ottawa, ON

Making healthier choices the easier choices for Canadians.

The Canadian government has recognized the need for greater collaboration and coordination in public health to address the mounting prevalence of obesity and preventable chronic diseases. To this end, the federal, provincial and territorial governments have agreed to work together with key stakeholders on the development of an Integrated Pan-Canadian Healthy Living Strategy. The strategy is based on an approach that will reach beyond individual responsibility for obesity and its related risk factors to address the root causes and conditions in society that can be changed to make healthy choices the easier choices for Canadians.

Canada's Guide to Healthy Eating and Physical Activity is one example of a recent Federal healthy living initiative. Visit the new combined guide at www.phac-aspc.gc.ca/guide

Long Live Kids - A Children's Healthy Active Living Program Strategy

Cathy Loblaw, President and COO

Concerned Children's Advertisers, Toronto, ON

Partnering to make a powerful difference to children's health.

The power of partnerships lies in the fact that our collective actions can have a much greater impact than the sum of our individual actions. With this in mind, Concerned Children's Advertisers' has launched Long Live Kids a one-of-a-kind collaborative healthy active living initiative created in partnership with industry, government, non-governmental and community organizations. Long Live Kids aims to give children tools to make



The challenge is to make healthy environments the norm.

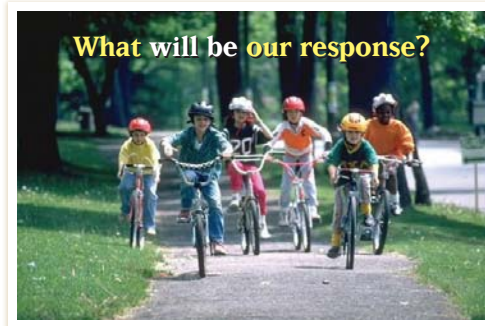
Healthy schools and community programs are fundamental to ensuring the health of Canadian children. Standards of community design, urban transportation policies and the nature of recreation programmes and facilities are also important responses to the current situation. Health professionals cannot expect to have a major impact working one on one. It is important to advocate for healthy schools and communities across Canada so they can benefit all children.

The Bottom Line

As committed health professionals, we continually challenge ourselves to make a difference. Now is a relevant time to ask what else is in our realm of influence and what more can we do to promote children's good health and vitality.

References

1. Janssen I, et al. *Obes Rev*, 2005; 6(2):123-32.
2. Clinton Smith J. *Pediatr Clin N Am*, 2004; 51:1679-95.
3. Datar A, Sturm R. *Am J Public Health* 2004; 94:1501-6.
4. Gutin B, et al. *Obes Res*, 1995; 3(4):305-12
5. Sasaki J, et al. *Int J Obes*, 1987; 11(4):339-45.



Guiding principals, strategic directions and healthy living targets.

The first area of emphasis for the strategy is healthy eating, physical activity and their relationship to healthy weights. The strategy is based on three guiding principles - integration, partnership and shared responsibility, and best practices. The four strategic directions include leadership and policy development, knowledge development and transfer (research, surveillance and sharing of results), community development and infrastructure (tools to deliver appropriate interventions), and public information (social marketing). Work is underway to set population goals for healthy eating, physical activity and healthy weights.

positive changes and to empower them to be healthy lifestyle champions for themselves, their families and their communities.

Long Live Kids takes its message directly to children.

Long Live Kids is taking its message of "eat smart, move more, be media wise" directly to children via a lively Health Rock television ad campaign based on the premise that 'kids just want to have fun'. Learning is extended to homes, community centres and classrooms with an in-depth educational program available online and through workshops and curriculum. Plans for extensive program evaluation and the development of a credible research model to measure the outcomes and behaviour change of Long Live Kids are under way.

Visit Long Live Kids at www.longlivekids.ca



FROM RESEARCH TO PRACTICE



In The Words of Our Distinguished Panel of Experts...

"We are all part of the problem as much as we are part of the solution. To address the issue of obesity, we must find a common message. We need strong leaders to take charge...our kids are counting on us!"

The Honourable Judith Erola, 2005 Kellogg Nutrition Symposium

"The 'family cell' is important, but inactivity is a multi-system problem. We need a multidisciplinary approach involving families, schools, health professionals, community environment, governments and industry."

Oded Bar-Or, 2005 Kellogg Nutrition Symposium

"We do need to use multi-level strategies to promote children's health. Individual behaviours are important, but we will not have an impact if we ignore environmental factors. Consider the power of our collective efforts."

Kim Raine, 2005 Kellogg Nutrition Symposium

"It has been said that, 'For every complex problem there are usually an array of simplistic solutions that are invariably wrong.' The obesity epidemic is no different. Public health problems warrant public health solutions."

Andrew Pipe, 2005 Kellogg Nutrition Symposium

"We must ensure that interventions are targeted and based on sound research, while recognizing that there is a need for more research and surveillance."

Claude Rocan, 2005 Kellogg Nutrition Symposium

"The current trend toward childhood obesity and its link to preventable chronic diseases has triggered many calls to action for children's health. Increasingly experts are concluding that an effective solution requires contributions from all sectors of society."

Cathy Loblaw, 2005 Kellogg Nutrition Symposium

And the final words from Kellogg Company's Vice President of Nutrition...

Christine Lowry

2005 Kellogg Nutrition Symposium

"Childhood obesity did not start overnight and it is not going to be solved overnight. Just as the old African proverb says, 'It takes a village to raise a child', it will require involvement from all levels of community. We simply can't afford to not work together for the sake of our future generations."



...final words



REGISTERED DIETITIANS at Kellogg Canada Inc.