Healthy Active Living in Canada

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Presentation Overview

• Introduce HALO
• Trends in Canada
• Implications
• Solutions – food for thought
• Proposed strategy for Conference Board
• Questions and discussion
Vision Statement

HALO will…

• Provide international leadership and research excellence in healthy active living and obesity in children and youth.

Mission Statement

HALO will…

Be a multidisciplinary centre of excellence in healthy active living and obesity research for children and youth that will:

• advance the understanding and promotion of health and wellness where children live, play and learn.

• develop, evaluate and mobilize innovative strategies to prevent, manage and treat obesity and lifestyle-related diseases.
Lines of Business

Research

• Promote and assess healthy active living among children and youth
• Identify, examine and address environmental, behavioural, psychosocial and biological factors related to healthy active living and obesity in children and youth
• Develop, implement and evaluate strategies to prevent, manage and treat obesity and lifestyle-related diseases in children and youth.
Lines of Business (continued)

Leadership
• Be a credible, innovative and authoritative source for child-focused healthy active living and obesity research, information and planning

Training and Education
• Be an internationally recognized centre for trainees, researchers and professionals interested in healthy active living and obesity research, leadership and advocacy in children and youth
Knowledge Translation
• Show leadership and innovation in translating, disseminating and mobilizing child-focused health active living and obesity research

Partnership
• Use municipal, provincial, national and international partnerships to create, promote and evaluate healthy active living initiatives for children and youth
Lines of Business (continued)

Advocacy

• Serve as a professional, informed and authoritative voice to promote healthy active living and prevent obesity in children and youth

Good Governance

• Be effective, efficient and transparent in all aspects of our work
Percentage of Canadian Children Overweight or Obese
2009-2011 Canadian Health Measures Survey

Roberts et al. Health Reports, 2012
2012 Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth
Physical Activity Levels

• Only 7% of children and youth are meeting Canada’s guidelines of 60 minutes of physical activity a day
• Kids are spending 63% of their free time after school and on weekends being sedentary
• The proportion of Canadian kids who play outside after school dropped 14% over the last decade
Colley et al., 2011
At least 1 day per week
At least 2 days per week
At least 3 days per week

Proportion Accumulating Vigorous Physical Activity (%)

Colley et al., 2011
Men
Percentage Accumulating 150 min/week of MVPA (%)
Across Whole Week
On a Regular Basis
17.1
13.7
4
5.5
0
2
4
6
8
10
12
14
16
18
20

Women
Percentage Accumulating 150 min/week of MVPA (%)
Across Whole Week
On a Regular Basis
13.7
4

Colley et al., 2011
Trends in aerobic fitness levels of Canadians were lower in 2007–2009 than in 1981, with declines apparent in all age and both sex groups.
Canadian children today are taller, heavier, fatter, rounder, weaker, less flexible, and less aerobically fit than in 1981.
### FEMALE

<table>
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<tr>
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<tbody>
<tr>
<td>161.5 cm (5'4'')</td>
<td>Height</td>
<td>162.3 cm (5'4'')</td>
</tr>
<tr>
<td>63.2 kg (139 pounds)</td>
<td>Weight</td>
<td>68.4 kg (151 pounds)*</td>
</tr>
<tr>
<td>24.1 kg/m² - normal weight</td>
<td>Body mass index</td>
<td>25.8 kg/m²* - overweight</td>
</tr>
<tr>
<td>76.3 cm (30.0'') - low risk</td>
<td>Waist circumference</td>
<td>83.4 cm (32.8'')* - increased risk</td>
</tr>
<tr>
<td>98.5 cm (38.8'')</td>
<td>Hip circumference</td>
<td>102.5 cm (40.4'')*</td>
</tr>
<tr>
<td>0.77</td>
<td>Waist-to-hip ratio</td>
<td>0.81*</td>
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#### FITNESS TESTS

<table>
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<tr>
<td>Grip strength</td>
<td>62 kg - very good</td>
<td>56 kg* - good</td>
</tr>
<tr>
<td>Sit-and-reach</td>
<td>30.2 cm - good</td>
<td>31.5 cm - good</td>
</tr>
<tr>
<td>Predicted maximal aerobic power (VO₂ max)</td>
<td>--</td>
<td>32.8 ml•(kg•min)^{-1} - good</td>
</tr>
</tbody>
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* significantly different from estimate for 1981 (p<0.05)
Figure 2. UK adults metabolic equivalents of task (MET)-hours per week of all physical activity, and hours per week of time in sedentary behaviour: measured for 1961–2005, forecasted for 2006–2030.


- active leisure PA
- travel PA
- domestic PA
- occupational PA
- sedentary time
Developed economies have experienced a significant drop in physical activity levels in fewer than two generations.
THE HEALTH CONTINUUM

Optimum Wellness

increased functional capacity
increased health contingency

detectable illness threshold

morbidity

Death
Are we mortgaging the health of our population?

**Optimum Wellness**
- increased functional capacity
- increased health contingency

**Death**
- morbidity

**Detectable Illness Threshold**

**Increased Functional Capacity**
- increased functional capacity
- increased health contingency

**Morbidity**
Potential Solutions

food for thought
1. Make the healthy choice the easy choice

PLAYGROUND RULES

1. KEEP YOUR HANDS AND FEET TO YOURSELF.
2. WALK, DON'T RUN.
3. NO PUSHING OR SHOVING.
4. THINK BEFORE YOU ACT.
BALL AND HOCKEY PLAYING PROHIBITED
BY-LAW 522-78
Toronto school bans hard balls


Students at an east-end Toronto school are being told to leave their soccer balls — and other hard balls — at home.

The students at West End Public School have hard balls in their daily backpacks, but not anymore.

Principal Dwayne Chant said he had received three injuries in the past two weeks, with many more minor incidents, and he knew it was time.

"We can't go on like this," Chant said. "We're going to have to make a change."

The school has a lot of students from a low-income area, and many have hard balls — soccer, basketball, and volleyball — in their backpacks.

"We've got a lot of kids from families who can't afford new clothes, and we're going to have to take steps to keep them safe,

The students are up in arms, some saying it's like a war zone.

"We love our games, and we're going to miss them," said one student.

But Chant said he's not going to back down.

"We're going to have to do what we have to do," he said.

The school has already started collecting hard balls and has a plan in place to ensure the kids are safe.
2. Get outside and play
THIS ONE RUNS ON MONEY AND MAKES YOU FAT

THIS ONE RUNS ON FAT AND SAVES YOU MONEY
Figure 26: The Drastic Reduction in the Home Territory of 8-Year-Olds Across 3 Generations (Source: the Daily Mail⁸).
child & nature Alliance

helping to overcome nature-deficit disorder
3. Don’t just sit there

Sedentary behaviour is a separate and distinct health risk.
Sedentary Time and Risk of Death

Deaths per 10,000 person-years

- Active
- Inactive

Time Spent Sitting (%)

- <25%
- 25%
- 50%
- 75%
- >75%

Katzmarzyk et al, 2009 (MSSE)
Sedentary Behaviour in Children

Prevalence of MetS (%)

Mark et al, 2008 (JPH)
An Active Day?

30 min

30 min

30 min

8 hours

30 min

4 hours

YES
Can’t see the forest for the trees?

• Recommendations for physical activity cluster around 30-60 min MVPA daily
• Surely the other 23.0 – 23.5 hours (96-98%) of the day matter!
• Why focus on the 2% and not the 98%?
• Beware of behaviour compensation
Should we consider strategies for...

- Reducing auto-dependency – car time
- Reducing nature-deficit disorder
- Reducing indoor time
- Reducing screen time
- Reducing chair time
- Other indices for reducing sedentary behaviours
4. Sweat the small stuff
IS OUR FRAME OF REFERENCE CHANGING?
Tremblay et al., APNM / CJPH, 2007
A LITTLE MEANS A LOT!
THE CASE OF THE TV REMOTE

- Average age 80 years
- 20 years x 52 wks x 25 hrs/wk = 26,000 hrs of TV
- 60 years x 52 wks x 12.5 hrs/wk = 39,000 hrs of TV
- (26,000 + 39,000) x 5 CC/hr = 325,000 CC in lifetime
- 325,000 x 0.5 kcal / CC = 162,500 kcals
- 159,250 / 3,500 kcal / lb of fat
- 46.4 pounds of fat!!!
5. The arrows go both ways
Hierarchical Model of Determinants of Energy Balance

Social environment

Built environment

HEALTHY environment

HEALTHY behavior

Biological predisposition

Positive energy balance

Weight gain

Why not?

Empower, don’t disempower
Conference Board of Canada

- Overarching “Wellness Strategy” with a focus on the economic impact of reduced wellness
- Several sub-components (for example)
  - Healthy Active Living
  - Healthy Eating and Nutrition
  - Mental and Emotional Health
  - Others? (sleep, immunizations, safe sex, substance abuse,...)
- Each sub-component to involve a series of papers/reports and releases
- See Healthy Active Living Proposal as the first proposed sub-component
- Great sector linkage opportunities
Hope to see you in Toronto in 2014

2014 GLOBAL SUMMIT ON THE PHYSICAL ACTIVITY OF CHILDREN
Bringing together leading researchers and practitioners to address the growing childhood physical inactivity crisis

REGISTER NOW! If your work touches child and youth physical activity, SIGN UP NOW to receive your summit e-invitation and future communications on important details, at www.activehealthykids.ca/summit

Presented by Active Healthy Kids Canada, publisher of the annual Report Card on Physical Activity for Children and Youth
Active Canada 20/20 Framework to Create a Culture of an Active Nation

Areas of Focus, Foundations for Change, Principles and Strategic and Priority Actions are mutually reinforcing and work together to achieve the Active Canada 20/20 Vision. Figure 1 below shows the relationship between the essential elements of this change agenda.
Questions / Discussion

• Questions / comments on presentation?
• How can the proposed “Wellness Strategy” maximize its impact?
• What do you think about starting the focus on Healthy Active Living?
• Should you capitalize on sector linkage opportunities? Are there others? How can the CBoC maximize the value-add?
• Can you see your organization as a champion of Health Active Living? Think of a specific example of value-add.