

Community-Based Interventions for the Promotion of Healthy Body Weights



CONFERENCE PROGRAM

May 20th, 2008
Delta Bow Valley Hotel
Calgary, Alberta, Canada

SATELLITE CONFERENCE:
International Society for Behavioral Nutrition and Physical Activity

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Welcome

Dear friends and colleagues:

As co-chairs of this meeting, it is our privilege to welcome you to the ISBNPA Satellite conference, "Community-Based Interventions for the Promotion of Healthy Body Weights".

This event is a follow-up to a satellite conference of a similar name held in Geelong, Australia, in 2006. While the first conference was a resounding success in getting researchers and practitioners sharing experiences in community work, the primary focus was on children, and North American perspectives were few. We thought this conference would provide an opportunity to expand the notion of community, and to invite contributions from other regions. The idea of promoting healthy weights in community contexts is still relatively new. Providing the opportunity for people with common interests - but not necessarily common ideas and strategies - to share knowledge, celebrate accomplishments and foster linkages just seemed like a good idea to us! So, thank you for participating!



We have an exciting program planned, and we trust that you will find the keynote sessions, poster presentations, and interactive break out sessions stimulating, relevant and inspiring.

We are proud to host speakers and participants from 7 countries, representing researchers, practitioners and students. Collectively, we represent expertise in promoting physical activity, healthy eating, and healthy weights for children and adults in school, worksite and community contexts. We are confident that there will be lively discussion, thought-provoking debate and challenging issues to face as we work toward building consensus on promising practices and research methodologies.

We invite you to take advantage of opportunities to connect with others and explore possibilities for future collaboration. Thank you for participating and sharing your insights and enthusiasm. Enjoy Calgary as we explore new frontiers together!

Kim Raine (Workshop Co-Chair)

Ron Plotnikoff (Workshop Co-Chair)

Program

Tuesday, May 20, 2008		
Time	Item	Room
7:45	Registration and Poster set-up Refreshments	Bow Valley Ballroom/ Foyer
8:15	Welcome and opening remarks Dr. Kim Raine & Dr. Ron Plotnikoff, University of Alberta	Bow Valley Ballroom
8:30	Presentation, Theme A: Obesity Prevention in Schools <i>Healthy Eating and Active Living among Children: What can Schools Do?</i> Dr. Paul Veugeliers & Marg Schwartz, University of Alberta	Bow Valley Ballroom
9:30	Presentation, Theme B: Obesity Prevention in Worksites <i>Obesity Prevention in Worksites: Interventions in Context</i> Dr. Carol Devine, Cornell University <i>Obesity Prevention in Worksites-What has been done, what is being done, and what is the problem?</i> Dr. Diana Fernandez, University of Rochester	Bow Valley Ballroom
10:30	Break	Foyer
11:00	Presentation, Theme C: Obesity Prevention in Communities <i>Promoting Healthy Weights in Communities: Promising Practices, Possibilities for Research and Potential Pitfalls</i> Dr. Kim Raine & Dr. Ron Plotnikoff, University of Alberta	Bow Valley Ballroom
12:00	Poster presentations (see pages 12- 17 for details) and walkabout lunch	Bow Valley Ballroom/ Foyer
1:15	Breakout sessions by theme	
	Theme A: Obesity Prevention in Schools	Bow Valley Ballroom
	Theme B: Obesity Prevention in Worksites	Den Room
	Theme C: Obesity Prevention in Communities	Olympic Room
2:45	Break	Foyer
3:00	Consensus development on future research needs	Bow Valley Ballroom
4:30	Summary and next steps	Bow Valley Ballroom
5:00 - 6:30	Wine and cheese reception	Foyer

Speaker Biographies

Paul Veugelers

Dr. Paul J. Veugelers received training in human nutrition (MSc from the University of Wageningen, the Netherlands), epidemiology (PhD from the University of Amsterdam, The Netherlands) and biostatistical modeling (postdoctoral fellowship at the University of British Columbia). In 1998, he immigrated to Canada to join the Department of Community Health and Epidemiology at Dalhousie University, Halifax. Since July 2004, he has been affiliated with the University of Alberta where he is currently a Professor in the School of Public Health.

Paul received a Canadian Institutes of Health Research New Investigator Award and, more recently, a Canada Research Chair in Population Health and an Alberta Heritage Foundation for Medical Research Scholar Award for his academic research program. Within this program, he studies the importance of nutrition, healthy lifestyle, socio-economic factors, intervention programs and policies in relation to overweight and chronic diseases. The overarching objective of the research is to advise on and direct new health policies and interventions to prevent chronic diseases and improve quality of life.

Marg Schwartz

Marg Schwartz is currently the School Health Manager of the APPLE Schools project for the School of Public Health at the University of Alberta. She is on secondment from Alberta Education and Alberta Health and Wellness where she was the School Health and Wellness Manager for both Ministries. Marg has previously been involved in the development of the Daily Physical Activity policy for Alberta Education as well as several ministry documents related to physical and health education.

Previously, Marg was the coordinator of both the Schools Come Alive and the Ever Active Schools programs in Alberta. She chaired the Alberta Coalition for Healthy School Communities for many years and has been involved with many, many local, provincial and national healthy school projects over the years. Someone recently called her the grandmother of comprehensive school health in Alberta so she is seriously thinking of retiring.....

Carol Devine

Dr. Carol Devine is Associate Professor in the Division of Nutritional Sciences at Cornell University. Her research is focused on understanding continuity and change in food choices across the life course, especially how working women and men integrate work, family, and food choices. Her outreach work is focused on creating food and physical activity environments in workplaces and communities that promote healthy eating and active living to prevent obesity and on conducting translational research to enable women to reduce their risk of breast cancer. Dr. Devine is a member of the team for Cornell NutritionWorks, a continuing professional development initiative for nutrition and health practitioners to enhance integration of research findings into professional nutrition practice.

I. Diana Fernandez

Dr. Diana Fernandez is a pediatrician trained in Argentina, her home country. She received her MPH and her PhD in epidemiology from the University of Minnesota. As a nutritional epidemiologist, Dr. Fernandez is interested in the two ends of the nutritional status continuum. She has examined the determinants of wasting and stunting in children in developing countries using data from the World Health Organization. Dr. Fernandez is currently focusing in weight gain prevention and obesity in the United States. In particular, Dr. Fernandez is interested in the synergism between individual nutrition and physical activity behaviors and the environment. She is currently conducting a group-randomized trial testing environmental interventions for worksite weight gain prevention and qualitative research on how the everyday life of low income families with school-age children influence the ability to make healthy nutrition and physical activity choices.

Speaker Biographies

Kim Raine

Dr. Kim Raine is currently Director and Professor of the Centre for Health Promotion Studies, School of Public Health, University of Alberta, Edmonton. She received her PhD from Dalhousie University in Halifax and is a registered dietitian.

Dr. Raine's research focuses on social determinants of health, qualitative and participatory methodologies in community health research, and theoretical contributions in a social change based approach to health promotion. Since 1999 she has been a Health Scholar (now Senior Scholar) of the Alberta Heritage Foundation for Medical Research. She is also a CIHR/HSFC Chair in Applied Public Health. In 2001 she was named the recipient of the University of Alberta's Martha Cook Piper Research Award (social sciences) for outstanding accomplishment and demonstrated promise as a researcher. She is the leader of POWER (Promoting Optimal Weights through Ecological Research), a \$1.4 million New Emerging Team grant from CIHR and the Heart and Stroke Foundation of Canada. She recently published "Overweight and Obesity in Canada: A Population Health Perspective" for the Canadian Population Health Initiative of CIHI. She is also a Director of Healthy Alberta Communities, a community-based project to prevent obesity and chronic diseases. Dr. Raine serves on the Scientific Council of the Danone Institute of Canada. She hasn't decided if she wants to be a researcher or an activist when she grows up.

Dr. Raine is the proud mother of two wonderful sons, Corey - age 17 and Dustin - age 13. She has completed 14 marathons and one Ironman triathlon. She doesn't do anything that isn't fun!

Ron Plotnikoff

Dr. Ron Plotnikoff is a Professor with joint appointments with the School of Public Health and the Faculty of Physical Education & Recreation and directs the Physical Activity and Population Health (PAPH) Research Laboratory at the University of Alberta. Ron holds salary awards from the Canadian Institutes of Health Research (Chair in Applied Public Health) and the Alberta Heritage Foundation for Medical Research (Health Scholar). Ron's research focuses on individual/behavioural- and environmental-level theory and intervention development/testing for the prevention and management of diabetes and cardiovascular disease, as well as the promotion of healthy body weight and general health of the population through physical activity.

Invited Participant Biographies

Karen Chad

Dr. Karen Chad is currently the Associate Vice President of Research for the University of Saskatchewan and a Professor in the College of Kinesiology. As a scholar, her research program focuses on health promotion and physical activity research with an emphasis on community intervention strategies. Her projects are applied in nature, working with schools, community organizations, health boards, businesses, and academic institutions in the prevention of lifestyle-related diseases. Her interests also include innovations in research process, results, and knowledge transfer in community partnerships in health promotion. Funded by CIHR, SSHRC and other national agencies, Karen is a Board member of the CIHR Institute of Nutrition, Metabolism and Diabetes and the Research Policy and Planning Advisory Committee for the Heart and Stroke Foundation of Canada.

Terry Huang

Dr. Terry Huang is Director of the Obesity Research Strategic Core at the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH). Dr. Huang plays a major role in developing new research directions and funding priorities in the area of pediatric obesity at the NICHD and across the NIH. He is currently leading an agenda on global multilevel research in pediatric obesity and has special interest in society-biology interactions in obesity and chronic disease, multilevel prevention strategies, international health, pediatric metabolic syndrome, fetal and childhood antecedents of obesity and metabolic abnormalities, and the translation of science to policy in obesity and chronic disease prevention. Dr. Huang is a fellow of The Obesity Society and a councilor on the Pediatric Obesity Section of the Society. In addition, he serves on the Senior Leadership Group of the NIH Obesity Research Task Force and represents the NICHD nationally and internationally on panels related to pediatric obesity. Dr. Huang received his PhD in Preventive Medicine and MPH in Epidemiology and Biostatistics from the University of Southern California. Prior to joining the NIH, he served on the faculty at the University of Kansas Medical Center and Tufts University's Friedman School of Nutrition.

Lyne Mongeau

Dr. Lyne Mongeau completed her undergraduate training in nutrition and dietetics at the Université Laval in 1981. She completed a Certificate in Community Action (1988), a Masters Degree in Community Health (1994) and a Doctorate in Public Health (2005), all from the Université de Montréal. Dr. Mongeau has worked in different settings including: hospitals, local community health centers, public health departments, the Institut national de santé publique du Québec, community-based organisations, and private practice. Since March 2007, she has worked for the Ministère de la santé et des Services Sociaux of the Government of Québec as Coordinator of the 2006-2012 Government Action Plan to Promote Healthy Lifestyle and Prevent Weight-related Problems. Investing for the Future. Dr. Mongeau has been working on weight-related problems for 25 years and has conceptualised programmes, contributed to structuring data collection on weight control practices and body image, been involved in community action on weight-related problems, and actively contributed to the crafting of the Québec Government Action Plan. She has published numerous articles and spoken to a variety of audiences on weight-related problems. In January 2007, Dr. Mongeau was awarded the prestigious « Scientifique de l'année » Award by Radio-Canada.

Invited Participant Biographies

PJ Naylor

Dr. PJ Naylor is currently an Assistant Professor in the School of Exercise Science, Physical and Health Education at the University of Victoria. PJ's primary area of research is childhood obesity and chronic disease prevention using a socio-ecological framework and focusing on settings where children live, learn and play, knowledge exchange, and implementation. PJ is a Co-Principal Investigator on both the Action Schools! BC Dissemination and Implementation Trials and the Healthy Opportunities for Preschoolers Project (HOP) pilot – all of which are funded by the Canadian Institutes of Health Research and the Heart and Stroke Foundation of Canada. Other projects PJ is involved with are the BC School Fruit and Vegetable Snack Program and the Municipal Recreation Food Environment Action Toolkit project. In her spare time PJ loves to run and socialize!

John C. Spence

Dr. John C. Spence spends most of his time relaxing in the Sedentary Living Laboratory in the Faculty of Physical Education and Recreation at the University of Alberta. He has expertise in the area of behavioural medicine and research methods. His research focuses on both the benefits and determinants of physical activity and how physical inactivity is related to obesity. Dr. Spence has studied the broad social determinants (e.g., SES, gender) and population physical activity patterns. More recently, he has focused on (a) the physical environment and how it may influence physical activity choices for both children and older adults (e.g., presence of parks and playgrounds), and (b) the effect of media (e.g., popular films) on physical activity and diet. Dr. Spence has a strong background in physical activity measurement, meta-analysis, and archival research. His work is funded by the Canadian Institutes of Health Research (CIHR), Heart & Stroke Foundation of Canada (HSFC), Social Sciences and Humanities Research Council (SSHRC), and the Alberta Heritage Foundation for Medical Research (AHFMR).

Oral Presentations

PRESENTATION

8:30 AM - 9:30 AM

Obesity Prevention in Schools [Bow Valley Ballroom]

Healthy Eating and Active Living among Children: What can Schools Do?

Veugelaers, P. & Schwartz, M.

Childhood obesity continues to expand as a public health problem. Preventative strategies often focus on school settings as schools are the place to reach almost all children. Schools are also the place for children to learn: Teaching 'healthy eating and active living' seems a natural step! However, public health decision makers are hesitant to invest in large scale school-based programs because of the many unknowns: What constitutes an effective program? Can one actually implement such programs? Can one sustain such programs? What are the benefits of such programs in terms of healthy eating, active lifestyle, and healthy body weights? Are there other benefits to such programs or are these programs taking away time to learn?

This presentation will discuss these issues by addressing the following three questions:

1. What are the challenges and opportunities when conducting interventions in schools?
2. What are the challenges and opportunities for evaluation design in schools?
3. What are the challenges and opportunities of the specific methodologies in schools?

For more information:

Veugelaers PJ, Fitzgerald AL. Effectiveness of school programs in preventing childhood obesity: a multilevel comparison. *Am J Public Health.* 2005 Mar;95(3):432-5.

Veugelaers PJ, Fitzgerald AL. Prevalence of and risk factors for childhood overweight and obesity. *Can Med Assoc J.* 2005 Sep;173(6):607-13.

PRESENTATION

9:30 AM - 10:30 AM

Obesity Prevention in Worksites [Bow Valley Ballroom]

Obesity Prevention in Worksites: Interventions in Context

Devine, C.

Worksites provide opportunities to reach about 62% of North American adults with interventions to promote healthful food choices, increased physical activity and healthy body weight. Working adults are a group with great importance both for the health of the work force, for the health of families, and for employers. Employment conditions such as long work hours, workstrain, and high work demand have been associated with poor dietary quality, reduced leisure time physical activity, and obesity. Workers have identified food cost, taste, and nutritional quality at work as contributors to their food choices and body weight. In addition, working adults report that it is difficult to find the time and energy to make healthful food choices or to be physically active. Policies and practices that help working adults manage multiple demands on their time such as work hours and schedules, leave time, child care, and workplace benefits vary by job type, by workplace and among countries. Research on worksite interventions needs to assess and address the social ecological context of employment as well as identify sustainable strategies for supporting healthful food choices and physical activity that are effective at a broad range of worksites.

Continued ...

For more information:

Devine CM, Jastran M, Jabs J, Wethington E, Farrell T, Bisogni C. "A lot of sacrifices:" Work-family spillover and the food choice coping strategies of low wage employed parents. *Social Science & Medicine*. 2006 63(10):2591-2603.

Devine CM, Stoddard AM, Barbeau EM, Naishadham D, Sorensen G. Work to family spillover and fruit and vegetable consumption among construction laborers. *American Journal of Health Promotion*. 2007 21(3):175-182.

Devine CM, Nelson J, Chin N, Dozier A, Fernandez ID. "Pizza is cheaper than salad:" assessing workers' views for an environmental food intervention. *Obesity*. 2007 15S:57S-68S.

Obesity Prevention in Worksites -**What has been done, what is being done, and what is the problem?**

Fernandez, ID.

Research on worksite interventions has targeted either weight loss, the prevention of weight gain, or excessive weight as a risk factor for other chronic conditions. The literature reflects two main types of strategies: strategies developed for individual employees in the context of their workplace; and strategies aiming to change the worksite environment by reducing barriers or increasing opportunities for healthy choices for all employees in the worksites. Sufficient evidence exists to recommend individual-level interventions combining nutrition and physical activity in the workplace although the effect on weight after 6 months was modest. Limited scope environmental strategies have shown success in the aspect of the environment modified-for example, increased sales of subsidized fruits and salad, increased use of stairwells. Multiple component environmental strategies did not directly target obesity but other chronic conditions for which excessive weight is a risk factor reported strong evidence for an effect on self-reported dietary intake. To fill the gaps of previous research, the National Heart, Lung, and Blood Institute is currently funding seven projects across the U.S. with the goal of testing environmental interventions for weight control and obesity prevention in the worksite. These projects are currently in different stages of development but numerous methodological and operational challenges have been identified. Is it possible to adhere to a strict protocol in the unpredictable world of effectiveness research? Are we looking at the right outcomes? Employees do not work in a vacuum; how do we bring the assessment and address the larger socio ecological context of employment to intervention development? Should we hold the worksite accountable for their part of the deal?

For more information:

Katz DL, O'Connell M, Yeh MC, et al. Public Health strategies for preventing and controlling overweight and obesity in school and worksite settings. *MMWR Recommendation Report*. 2005 54(RR-10):1-12.

Engbers LH, van Poppel MNM, et al. Worksite health programs with environmental changes a systematic review. *American Journal of Preventive Medicine*. 2005 29(1):61-70.

Pratt CA, Lemon SC, Fernandez ID, et al. Design characteristics of worksite environmental interventions for obesity prevention. *Obesity*. 2007 15(9):2171-80.

Obesity Prevention in Communities [Bow Valley Ballroom]

Promoting Healthy Weights in Communities: Promising Practices, Possibilities for Research and Potential Pitfalls

Raine, K. & Plotnikoff, R.

Healthy Alberta Communities (HAC) is a community-based chronic disease intervention project working to promote healthy eating and active living in four Alberta communities. HAC involves unique community-academic partnerships which provide an opportunity for developing better and promising practices that set priorities for the health of communities and populations. HAC also provides a research platform for establishing effectiveness of socio-environmental strategies for the promotion of healthy weights.

This presentation will share challenges and opportunities of both developing and evaluating interventions using an ecological framework for environmental change to promote healthy weights. Since 2005, we have been employing both informal methods and systematic processes to engage key community stakeholders in the identification of priority areas of intervention unique to each community context. The process enables collaboration, fosters buy-in and presents an authentic participatory opportunity for communities to determine project activity. However, collaboration requires a large “up front” time investment that poses challenges to maintaining accountability to funders, interest of potential community partners, and energy levels of program staff! Surviving the early investment stage has led to huge returns. Community partnerships can develop into self-sustaining projects that influence a relatively small number of citizens (e.g. community gardens) and broad-level policy action that influence entire communities (e.g. active transportation in urban planning). But, are stories of community success sufficient to encourage further investment in community-based interventions to promote healthy weights? What evidence is essential and what conditions are sufficient to motivate decision-makers to adopt new models of practice and policy for promoting healthy weights? This is where HAC as a research platform plays a key role.

A variety of methodological strategies are being applied and developed over the course of the project to evaluate the process, outcome and impact of innovative theory-driven community environmental interventions for the promotion of healthy weights. One challenge has been finding a balance (both financial and human resources) between research investments. Although more “traditional” health outcomes surveillance are both accepted and expected of research funding bodies, they may not be sufficiently sensitive indicators of change in environments that drive incremental improvement in health status over short periods of time associated with most funding cycles. Developing more novel community evaluation strategies is helping HAC to advance important understandings of how communities change and how transforming environments influences health, but applying unconventional methods may meet resistance in an environment driven by accountability to health outcomes. Are we evaluating what we need to be evaluating to develop the evidence base to advance knowledge, practice and policy? What can be done to enhance acceptance of an expanded repertoire of research designs and data collection methodologies?

For more information:

Raine K, & Wilson E Obesity Prevention in the Canadian Population: Policy Recommendations for Environmental Change. 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children. Canadian Medical Association Journal, 176 (8 Suppl): 106-110, 2007.

Raine K Obesity and overweight in Canada: A population health perspective. Canadian Institute for Health Information, Canadian Population Health Initiative. Ottawa, ON; 2004.

Raine K, Spence JC, Church J, Boulé N, Slater L, Marko J, et al. State of the Evidence Review-Urban Health and Healthy Weights. Canadian Institute for Health Information, Canadian Population Health Initiative. Ottawa, ON; 2008.

Poster Presentations

PRACTICE-BASED

BOARD 1A

Restructuring Recreational Time: A Physical Activity Intervention for Families

Zimmer, J., LeDrew, J., & Dorsch, K.

Purpose: One major influence of childhood obesity can be attributed to the lack of participation in physical activity. It is our belief that promoting family physical activity is the first step in teaching this lifestyle behaviour to children. This project focused on a new and innovative approach to family recreation time. We sought to promote a kind of “family time” away from the television that encouraged families to spend time together being physically active instead of being sedentary in front of a screen.

Methods: Participants were required to record in a logbook all of the time spent in front of a screen during weeks 1 & 5. During the second week of the project participants were asked to go screen-free, turning off all television, computer, video games, DVD, and other electronic screen equipment. Logbooks were also provided to the participants for this week to assist them in recording any screen viewing or “slip-ups” or “weak moments” as they were affectionately nicknamed. In total, 13 families participated in this project, with participants ranging in age from 2 to 52 years old.

Results/findings: The descriptive analysis of these comparisons revealed that the children in the study had an average reduction in screen-time of 5.98 hours from week 1 to week 5. The thematic analysis of the Active Living Diaries revealed that the participants in this study did not engage in family time spent being active together and that physical activity only occurred in organized contexts outside of the home for most family members (i.e., trip to the gym, baseball game).

Conclusions: The families in this study spent little time being active together, leading us to believe that families need to learn to restructure their recreational time together, and learning how to engage in physical activities for entertainment rather than the traditional sedentary activities that have us seated in front of a screen.

BOARD 1B

Encouraging Women to be Physically Active: One Step at a Time

Zimmer, J.

Purpose: The purpose of this study was to examine the use of the pedometer, as a tool to encourage women to be physically active. The pedometer, an innovative device that provides immediate feedback to the user regarding physical activity levels, was a new tool to the participants in this study.

Methods: The project participants were 5 women ranging in age from 19 to 22. Each was asked to wear a pedometer for a four month period. Participants were also required to record the number of steps taken each day on a log sheet, and to keep a journal of their reflections, successes and challenges with the use of the pedometer. The log sheets and pedometer journals were collected for analysis.

Results/findings: It was hoped that the use of the pedometer would encourage the participants in this study to make small lifestyle changes in order to be more physically active as a part of their daily routines. This was not observed in the data; participants in this inquiry continued to comment on not having enough time in the day to be active. None of the participants made lifestyle changes to integrate physical activity into their daily activities such as parking their car farther away in parking lots. While participants were aware of their activity levels at any given moment in the day, the only encouragement that this gave them was to plan a work-out session later on in the day if time permitted. There was a consistent notion presented in the data indicating that a scheduled work-out was the only way to be physically active, most participants did not have the time or energy for this when the opportunity arose.

Conclusions: The women in this project felt that physical activity was best achieved in a structured and isolated manner. It is possible that more attention needs to be given to physical activity promotion for women, achieved through a combination of both recreational and utilitarian activities if activity levels are to increase and obesity prevention is to occur.

Poster Presentations

BOARD 2A

The Journey of 10,000 Steps: Alberta Cancer Board Employees Thrive on Wellness

Doram, S., Strath, J., & Kennedy, M.

Purpose: As one component of a multi-faceted approach to employee health, staff of the Alberta Cancer Board (ACB), a provincial multi-site health care organization, began the journey towards wellness by participating in a 10,000 steps per day physical activity challenge. The purpose of the challenge was to increase physical activity levels, improve knowledge of healthy behaviours, and to develop a process for engaging employees in wellness programming.

Background: Employees of the ACB were surveyed about characteristics they desired in an employee wellness program. Their answers fuelled the creation of Thrive on Wellness, a program dedicated to improving individual and organizational health at the ACB. As one component of Thrive on Wellness, the StepsCount 10 week pedometer-based walking challenge aimed to showcase the ACB's commitment to employees, raise morale, and engage staff with their new wellness program.

Key Points: Wellness staff traveled to each of 10 worksites to register participants and provide support for the StepsCount challenge. Multi-site participation ranged from 50% to 100%, with an overall uptake of 50% by ACB employees. This uptake demonstrated the organization's readiness for change, and employee desire for continued wellness activities supported by the workplace. Forthcoming qualitative and quantitative evaluations will demonstrate changes in physical activity behaviours, knowledge, and overall engagement with Thrive on Wellness.

Conclusions: High uptake of the StepsCount challenge demonstrated a strong desire for employee wellness programming at the ACB. Hands-on implementation and vested commitment by the wellness staff is an essential component of future wellness programming.

BOARD 2B

A Comparison of Familial Perceptions of the Accessibility of Recreational Facilities and Facility Use

Osler, G., Raine, K., Nykiforuk, C. & Plotnikoff, R.

Purpose: The question of interest is: do familial perceptions regarding the accessibility of recreation facilities demonstrate a relationship with the rates of use of those facilities in North Central Edmonton? The factors that influence the perceptions of recreational facilities and their use by families are examined. This research develops an understanding of what shapes the choices of recreational facilities and determines which factors will increase their usage to promote physical activity.

Methods: This study uses a mixed-method approach. The qualitative component is guided by critical social science research and gathers information from the families on their perceptions of the accessibility of local facilities via focus groups. Content analysis is used to analyze this component. The quantitative component gathers facility use and perceptual information via a written survey. The survey is developed according to the results from the focus groups, as well as from previously validated questionnaires, mainly The Environmental Supports for Physical Activity Questionnaire. Descriptive and inferential statistics are performed. Regression analysis is used to analyze if the questions regarding perceptions of facilities predict the items pertaining to facility use. Potential participants for both phases of this study are accessed via the Crystal Kids Youth Centre; an inner-city drop-in centre for youth ages 6-17. For the focus groups, a total of between 8 and 12 families are selected. The survey requires a convenience sample of 91 families.

Results/findings: Preliminary findings will discuss the focus group analysis and the process of developing the survey from the focus group results.

Conclusions: This research seeks to identify the factors that are most relevant to increasing families' future use of recreation areas to promote physical activity and to thus aid in the prevention of obesity.

Poster Presentations

BOARD 3A

Exploring the Role of Comprehensive School Health in Promoting Physical Activity Among Children and Youth *Langille, J.L., & Rodgers, W.*

Purpose: Although research has shown that schools with comprehensive school health (CSH) programs can be effective in promoting the health of children and youth and the approach, it remains unclear how components of CSH are integrated into schools and how contributions from schools, communities and homes need to be articulated to foster this approach. The purpose of this study was to investigate the reality of the integration of this approach in schools.

Methods: Interviews were used to determine the perspectives of different levels of stakeholders according to the relevance of CSH. Fourteen participants were purposively recruited and represented stakeholders from the government and within a school district, including administration, board members, consultants, principals and teachers. Following initial qualitative data analysis, CSH concepts were used to deductively organize the data and to determine the corresponding perspectives of these stakeholders.

Results/findings: The findings of this study suggest that CSH was recognized by all stakeholders but the reality of the approach was dependent on specific characteristics within school communities. An emerging theme across stakeholders identified that success of CSH requires someone to facilitate or lead the approach. However, the reality of attaining this support is conflicted by challenges inherent within school environments, such as curriculum load and focus on the academic achievements of students.

Conclusions: This study provides evidence that although CSH is a valued approach, increased support is needed at the school level to achieve appropriate integration. Policy should support schools in identifying a lead specialist to provide specific direction for CSH activities relevant for individual school communities. Supporting school communities will foster healthy active behaviours of children and youth, thereby contributing to the prevention of obesity.

BOARD 3B

Make It HAPPEN: Targeted Intervention for Overweight Children and their Families *Watson-Jarvis, K., Campbell, K., & Clark, C.*

Purpose: This program was developed to provide services to children at risk for overweight and to evaluate outcomes of these services for families. In 2005 there were no services and little evidence of best practices.

Methods: Children 6-12 years old (added ages 13-15 Sept. 2007) with a body mass index (BMI) >85th %ile for age and gender are referred or self-refer to a community-based program. The no-cost program focuses on building family capacity for healthy eating, active living and healthy self-esteem. It includes family assessment, weekly education sessions for children and parents, weekly physical activity for children and follow-up support. Measurements taken at program entry and completion included weight, height, blood pressure, eating habits, physical activity, self esteem, and child's quality of life (QL). Family physicians are sent letters regarding program participation and include height/weight measures plus blood pressure screens.

Results/findings: Feb.2005 - Sept. 2006, 112 children completed the program (16% attrition). After 8 weeks, average BMI-for-age %ile for the group decreased from 97.5 to 97.1 (N=70, Z=-.2, p=0.006), physical activity increased (p=0.042), child quality of life increased, both self-reported (p=0.012) and parent-reported (p=0.001), and self-esteem was maintained (p=0.38). Based on blood pressure screens, 40% needed family physician follow-up. Based on evaluation and capacity, program changes have included: extending the program to 12 weeks; curriculum refinement; development of 13-15 year old program; revamping the 6-9 year old program. A second data analysis will be reported.

Conclusions: An 8-week program focusing on building family capacity for healthy lifestyles appears to yield improvements in children's physical activity, BMI and QL. Learning has informed ongoing planning. Follow up measures would determine if changes are maintained. Building capacity in primary care to support healthy behaviors in families is being explored.

Poster Presentations

SCIENCE-BASED

BOARD 4A

Impact of a School Board Junk Food Sales Ban on Students' Junk Food Intake: A Proposed Natural Experiment

Minaker, L.

Purpose: The proposed study aims to address the research question: does a school junk-food sales ban change the junk-food intake of students compared to students who attend schools without such a ban?

Methods: A multi-level 2-phase cross-sectional survey will be used to address the research question. The proposed study design is a pre-test, post-test control group design with grade 7 to 10 students. Edmonton Public School students represent the intervention group and Edmonton Catholic School students will comprise the control group. A junk-food score based on 24-hour dietary recall and food-frequency questionnaires is the outcome measure and the implementation of the junk-food ban comprises the exposure measure. Multilevel linear regression analyses will be conducted to account for the hierarchical structure of the data.

Results/findings: Since the junk-food sales ban has yet to be implemented, results are not yet available.

Conclusions: Policy implementation of this type provides the opportunity for a natural experiment, which will provide strong evidence for the impact of a junk-food sales ban on students' junk-food intake. If results indicate that a school junk-food ban reduces students' junk-food intakes, this study will be a useful advocacy tool for other schools across Canada to adopt similar policy. Such a scenario may have a great public health impact.

BOARD 4B

Environmental Impact of a School Based Intervention to Prevent Overweight and Obesity in School Age Mexican Children

Safdie, M., González-Casanova, I., Salvo, D., Islas, A., Jennings-Arbutto, N. & Rivera, J.

Purpose: To describe the impact of a school-based environmental intervention (EI) in public elementary schools (PES) of Mexico City.

Methods: An EI to prevent childhood obesity was implemented and evaluated with an experimental design in 27 PES, 16 intervention schools, and 11 comparison schools (CS). Environmental changes designed to impact children's eating and Physical Activity (PA) patterns included: enhanced availability of healthy food & water (FWA) and moderate to vigorous physical activity (MVPA) opportunities during recess and Physical Education classes (PEC). Intervention activities included: school policy change, training to food vendors and an educational campaign with an ecological approach oriented to children and school community. The intervention lasted 8 months and had two intensities: basic (B; 8 schools) and plus (P; 8 schools). Pre and post evaluations were conducted. FWA was assessed through food & water inventories. A stoplight analogy according to nutritional value was used for analysis. PA instruction time was assessed using SOFIT (System for Observing Instruction Time; n=108 children across all schools). Descriptive analysis and logistic models were conducted.

Results/findings: There was a significant reduction in the availability of unhealthy (red) items in B (42 to 26.6%, p=0.002) and P (40.9 to 30.2%, p=0.01). Per capita availability of fruits increased significantly in the P group, from 14.1 g to 25.4 g p=0.03. There was a significant increase in drinking water availability in both intervention groups (p=0.01). There were no changes in FWA in the (CS) (p>0.5). MVPA instruction time showed an increasing trend for both intervention groups, but only during PEC. There was no change in PA instruction time in the (CS) (p>0.5).

Conclusions: A modest impact was documented, suggesting the feasibility of EI to enhance the availability of healthy opportunities at school towards the prevention of obesity.

Poster Presentations

BOARD 5A

Modification of a Tool to Assess Community and Consumer Nutrition Environments

Buhler, S. & Raine, K.

Purpose: The Nutrition Environment Measures Survey in Stores (NEMS-S) is a research tested measurement tool designed to assess the community and consumer nutrition environments. The tool evaluates the type of stores selling food in a community as well as the availability and pricing of healthy foods and accessibility of nutrition information pertaining to the available products¹. The tool was developed in the US and to date has not been used in Canada. The overall purpose of this work was to adapt the NEMS-S for use in Canada in order to use it to evaluate the local food environment in two communities in Edmonton, Alberta. This presentation examines the adaptation of the fruit, vegetable, and juice measures specifically.

Methods: Canadian Food Consumption and Food Expenditure data was used to determine the most commonly consumed juices as well as fruits and vegetables in Canada with reference to Alberta specifically, if available. This information was compared with Edmonton's Nutritious Food Basket and recommendations from Canada's Food Guide to determine which items should be initially included in the modified NEMS-S. The survey was then field tested in a variety of grocery stores to determine which foods to include in the final modified tool.

Results/findings: Canadian data indicated canned and frozen consumption of certain fruits and vegetables exceeded fresh consumption and therefore four new measures were added to NEMS-S to incorporate these categories. Additional fresh fruits and vegetables representative of Canadian intake and recommendations were also added. Non-refrigerated fruit juice and beverages were included as well as frozen concentrates. Field testing of the modified tool demonstrated some highly consumed fresh fruits and vegetables are not readily available during the winter months. Therefore seasonal adjustments to the NEMS-S were made.

Conclusion: The modified NEMS-S will aid community interventions by providing a means to evaluate the nutrition environment in a Canadian context.

1. Glanz K, Sallis JF, Saelens BE & Frank LD. Nutrition Environment Measures Survey in Stores (NEMS-S): Development and Evaluation. *Am J Prev Med* 2007;32(4): 282-289.

BOARD 5B

Comparison of Lifestyle Intervention Programs for Improving Physical Activity, Diet, and Obesity in Middle-aged Community Dwellers

Arao, T. & Kai, Y.

Purpose: To compare the effects of a behavioral intervention program (BIP) and a conventional health education program (CHP) to promote physical activity and healthy dietary habits, and to improve obesity in community-dwelling middle-aged people.

Method: One hundred subjects (81 women), aged 57.4 ± 8.3 yr, were randomly assigned to either the BIP or CHP group. The subjects in both groups participated in the same intervention protocol (2-hr monthly group sessions over 4 months). BIP was based on behavior theory and social cognitive theory, and constructed using behavioral strategies (e.g., goal setting, self-monitoring, rewards, and social support) and group discussion. CHP was constructed of lectures on lifestyle-related diseases, exercise, and nutrition, followed by group discussion. Primary outcomes were changes in the number of daily walking steps, self-reported physical activity, and food (total energy, fat, and vegetable) intakes. Secondary outcomes were BMI, waist circumference, and the insulin resistance index (HOMA-IR). The data collection was done at the baseline, the end of the intervention, 6 months and 12 months after the end of the intervention.

Results/findings: No significant differences for demographic variables, primary and secondary outcomes at the baseline were observed between the BIP and CHP groups. An ANOVA-test showed a significant ($P < 0.05$) interaction between group and time for the number of daily walking steps and a leisure time physical activity. Both indices showed significantly larger increases in the BIP group than in the CHP group at the end of the intervention and during follow-up period.

Poster Presentations

Continued ...

There were no significant interactions for total energy, fat, and vegetable intakes. None of the secondary outcomes showed a significant interaction. However, subgroup analysis of obese women (BMI > 24) showed significant interactions which showed significantly greater decreases in every secondary outcome. The change in HOMA-IR negatively correlated with the change in leisure-time physical activity in the BIP group ($r=-0.44$, $p<0.05$).

Conclusion: The behavioral intervention program facilitated greater improvement in physical activity than the conventional health education program in community-dwelling middle-aged people and improved obesity and glucose metabolism in obese women.

BOARD 6A

Exploring Individual-Level Capacity for Chronic Disease

Flaman, L., Nykiforuk, C., Plotnikoff, R. & Raine, K.

Purpose: The purpose of this research was to examine individual-level capacity to do chronic disease (CD) prevention activities within an organization.

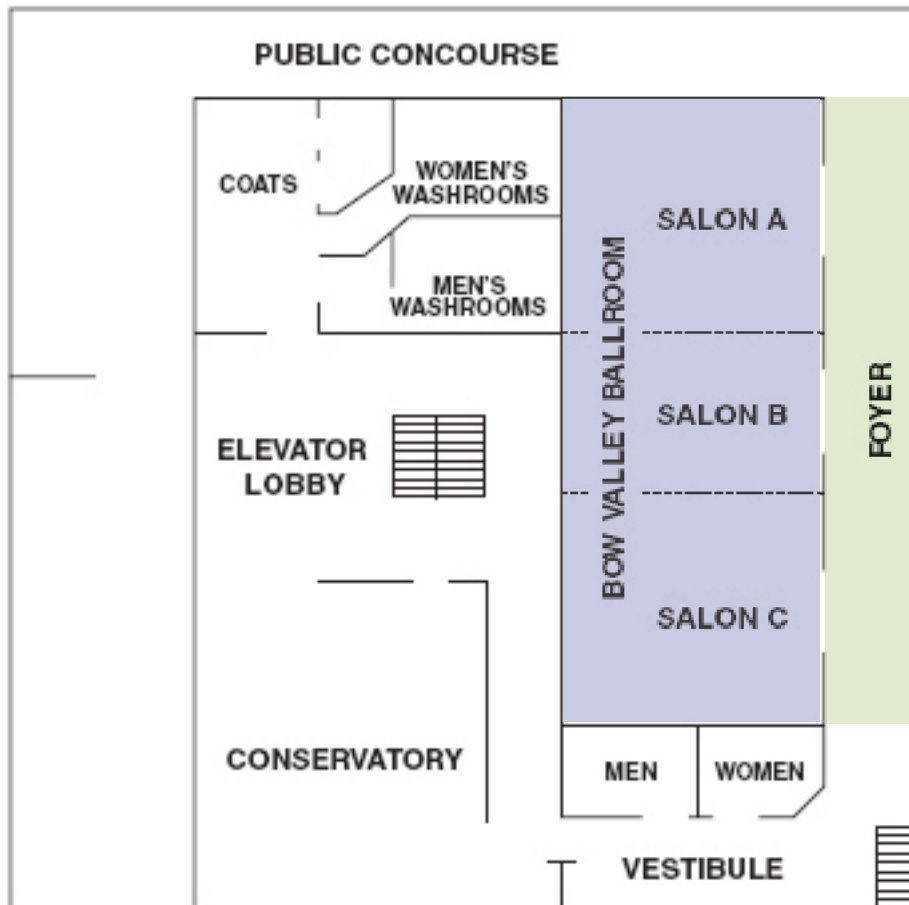
Methods: A case study approach was employed in two contrasting urban communities, including: Norwood/Northcentral Edmonton (NNCE); and Medicine Hat/Redcliff and area (MH). Participants were key community organization and agency representatives who initially participated in a community planning workshop (i.e., Analysis Grid for Environments Linked to Chronic Disease [ANGEL-CD] workshop) held by Healthy Alberta Communities (U Alberta). Data were gathered in three phases: (1) workshop participants worksheets were analyzed to identify common themes; (2) a six-month follow-up questionnaire to assess individuals' capacity; and (3) one-on-one semi-structured interviews were conducted with select participants from phases 1 and 2, to explore capacity to do prevention activities as a result of participation in the ANGEL-CD workshop.

Results/findings: Analysis of 29 individual workshop worksheets indicated that many of the priority strategies for CD prevention were related to the physical environment. Of the 35 self-report variables exploring individuals' capacity to take on health promotion actions within an organization, only one variable was significantly different between the two communities (NNCE and MH). Based on preliminary interview findings, it appears workshop participation influenced non-front line participants' individual capacity to do CD prevention. For front-line workshop participants, the workshop validated issues about the community and provided an opportunity to renew commitment surrounding issues of importance.

Conclusions: Participation in the ANGEL-CD workshops have the potential to influence individuals' capacity to do CD prevention if they are supported by their organization and have the personal will to work towards such prevention activities.

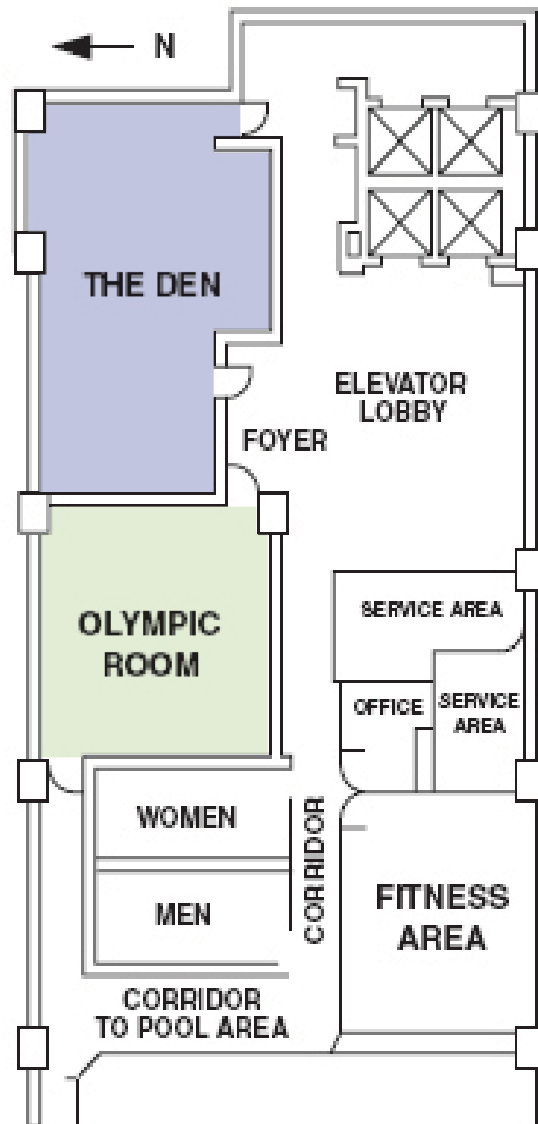
Venue Map

SECOND FLOOR



Venue Map

THIRD FLOOR



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