Welcome to

CHNET-Works! Fireside Chats

Hosted by University of Ottawa
Community Health Research Unit

Funders

2005–2006 Ontario Ministry of Health and Long Term Care

2004-2005 Canadian Health Services Research Foundation

Physical Activity and Obesity
Needs Assessments:
Bringing theory and evidence to the problem

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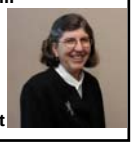

Participants

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And others….

Overview

- Discuss framework for needs assessment that integrates evidence and theory
- Share relevant data sources and research
- Begin a conversation that can be continued on CHNET-works!
- Powerpoint slides will be available on CHNet-Works (University of Ottawa site) under the icon "fireside chats"

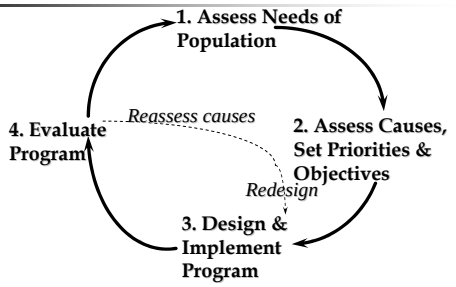
An Observation from the Field

- "Strategies to increase physical activity are proliferating. In Ontario, funding has been approved for various community level projects with the target of increasing Ontarians' physical activity to 55% by 2010. Public health promoters, health agencies, recreation and leisure practitioners and others are scrambling to make a difference. A sense of urgency is upon us."
- (CHNET-works! Fireside Chat Participant, 2006)

Needs Assessment

- Iterative process
- Embedded within a cycle of assessment, planning, implementation and evaluation
- *The assessment of community needs together with the capacity to address them, forms an essential component of health planning*

*Strengthening Population-based Planning Approaches**



*Procedural models, such as PRECEDE, PATCH. See
*Green & Kreuter, *Health Promotion Planning*, 3rd ed., Mayfield, 1999.

Evidence-based public health

- "evidence-based public health action is....often inhibited by a mismatch between the magnitude and importance of a public health problem, and the adequacy of evidence on potential interventions to address the problem"
- Rychetnik, Hawe, Water, Barratt & Frommer. J Epidemiol Community Health 2004

- "Recommendations for population level changes in complex systems require an inclusive framework for information-gathering and interpretation"
- (Swinburn, Gill & Kumanyika, 2005, p. 24)

A Promising Framework
Swinburn, Gill & Kumanyika, 2005

- Building a case for action
- Identifying contributing factors and points of intervention
- Defining the range of opportunities for action
- Evaluating potential interventions
- Selecting a portfolio of specific policies, programmes and actions

Framework Elements

- Relevant evidence and information
- Sources of evidence and information
- Examples

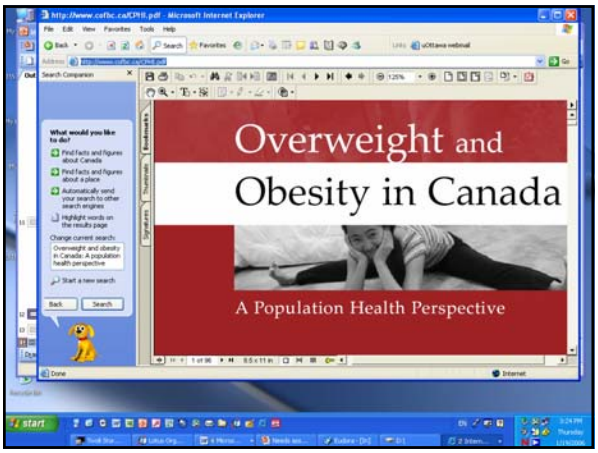
Building a case for action

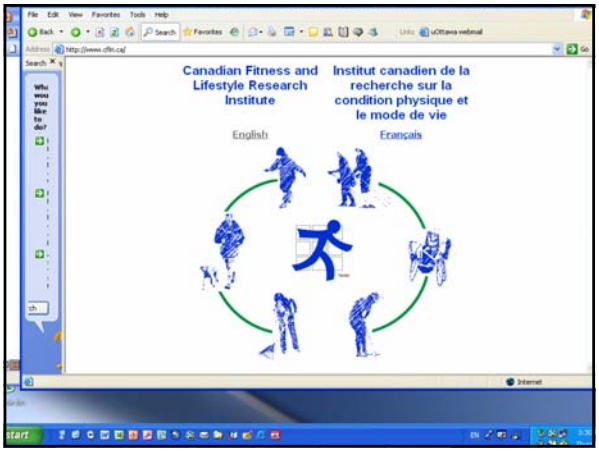
- Monitoring and surveillance data
- Observational studies
- Economic analysis
- Informed opinion for modeling assumptions
- Social and economic burden of obesity
- Prevalence estimates
- Time trends
- Project reductions in burden of illness with interventions

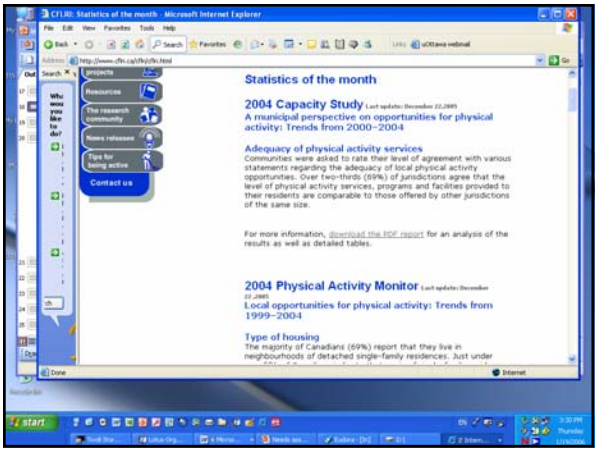
Building the Case

- Overweight and obesity in Canada: A population health perspective, K Raine
- http://cofbc.ca/references/html

- Canadian Fitness and Lifestyle Research Institute
- http://www.cflri.ca







Indicators

- www.apheo.ca/indicators/index.html
- Examples:
  - Physical activity index
  - Physical activity frequency
  - Data sources, survey questions, analysis checklists & methods of calculation provided

Photovoice

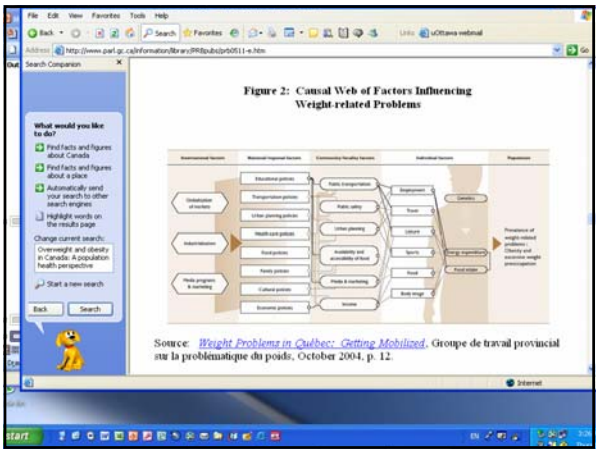
Lockett, Willis & Edwards, CJNR, 2005

- To examine environmental factors influencing the walking choices of elderly people using the photovoice approach

- Photos of barriers and facilitators of walking in their neighbourhoods

Identifying contributing factors and points of intervention

- Observational studies
- Monitoring and surveillance data (e.g. food supply behaviour trends)
- Informed opinion
- Reviews of causal determinants
- Drivers of environmental change
- Pathways to weight gain, weight loss, being physically active or sedentary



Environmental Factors (1 of 3) Humpel, Owen & Leslie, 2002

- Comprehensive review – relationship between perceived physical environment and physical activity
- 33 articles retrieved (1989-2002)
- Qualitative studies excluded
- 16 articles met inclusion criteria
- 12 had an explicit theoretical base (social cognitive theory, theory of planned behaviour, ecological models)

Sample Findings (2 of 3)

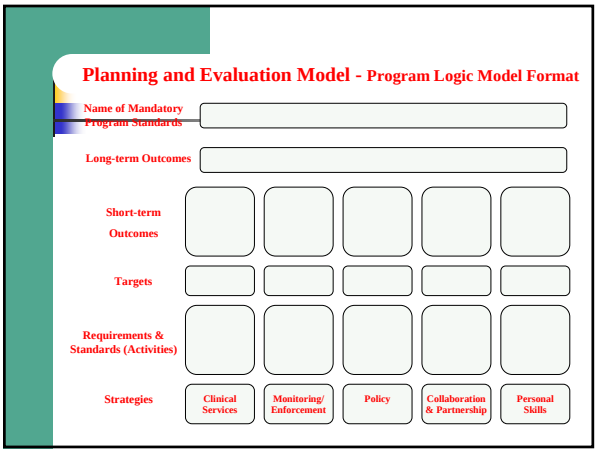
Environmental variables	# studies	Association
Accessible bike path/park	3	+++
Density of facilities (GIS)	1	+
Presence of sidewalks	2	00
Home equipment	5	+++ 00
Poor weather	2	00
Safe footpaths	1	+
High levels of crime	2	00
Attractive local area	2	++
Friendly neighbourhood	1	+

Conclusions (3 of 3)

- Accessibility, opportunities for physical activity and aesthetic attributes of the environment had "consistent associations with physical activity behaviour"
- Prospective studies are needed to identify causal relationships

Defining the range of opportunities for action

- Parallel evidence from other public health initiatives (e.g. tobacco)
- Frameworks for action
- Informed opinion
- Information on current relevant initiatives
- Programme logic and theory
- Obesity and physical activity framework
- Support actions (capacity building, research, monitoring) identified
- Identified settings and sectors
- Short and long term population health goals



From the Field of Tobacco

- Ontario Tobacco Research Unit
- www.otru.ca

Evaluating potential interventions

- Experimental studies
- Observational studies
- Effectiveness analysis including modeling
- Economic analysis
- Programme logic and theory
- Programme evaluation from community or demonstration projects
- Estimates of effectiveness and cost-effectiveness
- Descriptions of potential interventions and support actions

A Reflection From a New Researcher

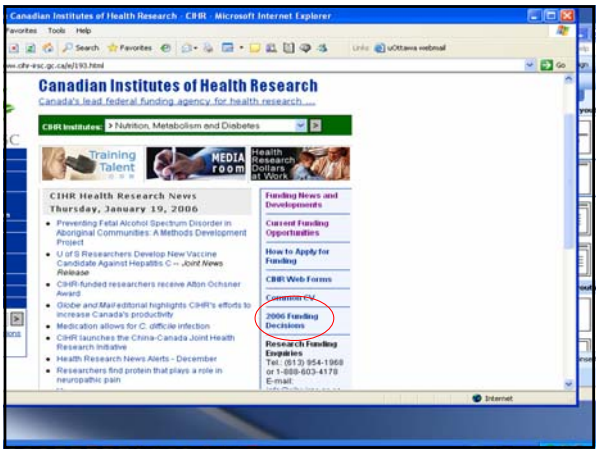
- "Where to start? As a neophyte in this area of research (physical activity and obesity), I am overwhelmed by all the new research and all the past research....What are the gaps in theory and evidence that need to be assessed regarding obesity and physical activity?"
- (CHNET-works! Fireside Chat Participant, 2006)

Canadian Institute for Economic Evaluation

- http://www.prevention-dividend/com/ciee/index.htm
- An interview with Dr. Gina Browne
- "No matter what sector you look at, everyone says the same thing: "we know about effectiveness but we don't know anything about cost effectiveness".

Current Research

- www.cihr.ca
- Institute of Nutrition, Metabolism and Diabetes
  - "Obesity emerged as the most non-partisan research priority suggested and as the most cross-cutting theme identified"
  - A National Consultation on Strategic Directions
- Institute of Musculoskeletal Health and Arthritis



Casey L, Crumley E. Addressing childhood obesity: The evidence for action January 12, 2004

- CIHR Institute of Nutrition, Metabolism and Diabetes
- Sample Recommendations:
- Protocols for the treatment of childhood obesity should include a component of exercise intervention (p. 24)
- The implementation of school-based nutrition programs aimed at changing nutrition related behaviours is recommended (p. 50)

Selecting a portfolio of specific policies, programmes and actions

- Combination of "proven" and "promising" interventions
- Estimates of effectiveness and cost-effectiveness
- Information about specific interventions and activities
- Balanced portfolio of policies and programmes

How promising are potential interventions?

Swinburn, Gill & Kumanyika, 2005

- Certainty of effectiveness = quality of evidence, strength of programme logic, sensitivity and uncertainty of parameters in modelling population impact
- Potential population impact = efficacy, reach, and uptake

Categorizing Potential Interventions (0 to ++++ promising)

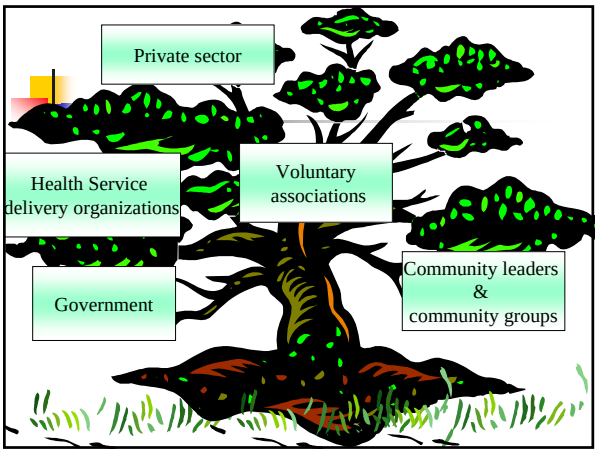
Certainty of effectiveness	Low impact	Moderate impact	High impact
Quite high	++	+++	++++
Medium	+	++	+++
Quite low	0	+	++

Policy Assessment

- CIHI – Obesity in Canada: Identifying Policy Priorities
- http://secure.cihi.ca/cihiweb/products
- Review of Best Practices in Canada and Internationally for Healthy Child Development: Key Legislation www.earlylearning.ubc.ca//documents/Review_Best_Key_Legislation.pdf.pdf

The Need for Stakeholder Input
Nutbeam, 2001

- Policies and programmes are driven by various considerations:
  - Historical
  - Economic
  - Political
  - jurisdictional



Filter Criteria for Stakeholder Judgements on Implementation
Swinburn, Gill & Kumanyika, 2005

- Feasibility – ease of implementation
- Sustainability – durability of intervention
- Effects on equity – inequalities in distribution of obesity in relation to SES, gender, locality
- Potential side-effects – stigmatization, economic consequences
- Acceptability to stakeholders – acceptance by various stakeholders

The "needs assessment" elephant is always hungry

Stigma and victim blaming

- How can we effectively convey the message about the link between physical activity and obesity without sounding overly negative, or blaming of victims?
- I have heard many organizations say they are not using the term "obesity" because it is too negative. Is there any evidence that a program or campaign that uses different language is more successful?

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Continuing the Conversation on CHNet-Works

- Tools and approaches
- Effective strategies
- Research

Tools and approaches

- How can a needs assessment be used to promote physical activity?
- What are effective strategies to get key stakeholders to commit to making changes that support healthy eating and physical activity?
- Is there an assessment tool that identifies community's strengths and gaps to address obesity?
- How do you start working with municipal governments in a very rural community to sell the idea of active community design when physical activity is not important to decision-makers?

Effective Strategies

- What are the best community-based practices aimed at persons 25-44, many with children at home?
- Are there good health curriculums to implement in schools that span K-12?
- Do you agree with blending physical activity and healthy eating messages when targeting obesity?

Research

- To whom should the researchers be bringing the theory and evidence?
  - To more academics?
  - To the public-at-large?
  - To governments and corporations?
  - Where will the research have the most impact? Should we be concerned with the audience we are delivering results to?

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- Applying the scorecard framework to public health
- www.ices.on.ca/file/scorecard_report_final.pdf
- Use of Geographic Information Systems
- www. Cdc.gov/pcd/issues/2004/oct/04_oo47.htm
- Walkability tool www.cdc.gov/nccdphp/dnpa/walkability/sample.htm

Thanks everyone!

Schedule for Fireside Chats

Visit CHNET-Works!