2005

Heart and Stroke Foundation of Nova Scotia

HAVING AN IMPACT

Canadian Institute for Economic Evaluation
February 6 to 9th

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HEART AND STROKE FOUNDATION OF NOVA SCOTIA

Finding answers. For life.

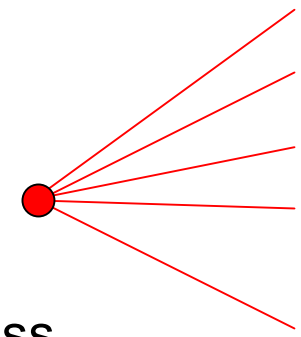
Context

- Among highest rates of chronic disease
- Among highest rates of disability days
- Health care spending has doubled in the last 10 years:
  - 1994 - 1995, Nova Scotia spent $1.2 billion
  - 2004 - 2005, Nova Scotia spent $2.4 billion
- Aging population and less activity with age

Commonality of Risk Factors

Risk Factors

- Smoking
- Unhealthy Diet
- Overweight
- Physical Inactivity
- Alcohol Abuse
- Psychosocial Stress



Major Chronic Diseases

- Cardiovascular Disease
- Cancer
- Diabetes
- Chronic Respiratory Conditions
- Mental Ill-health

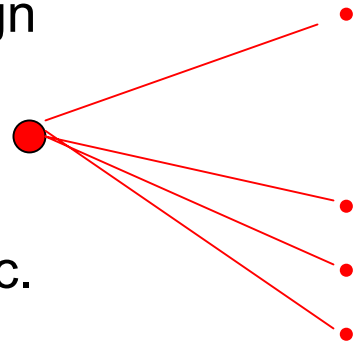
Supportive Environments

- Greatest influencer for the greatest number
- Opportunities for activity regardless of income, education and social status etc.
- Makes it easy/routine
- Key areas to reap significant benefits
  - Prevention and Rehabilitation
- Planning is an existing tool so we are not reinventing the wheel

Commonality of Impact

Regional Planning

- Neighborhood Design
- Street Network
- Land Use
- Zoning
- Quality sidewalks etc.
- Safety features



Major Impact Areas

- Health Care
  - Wait lists, Rehab, Long term care
- Economy
- Business Investment
- New Citizens

Part of the Process

Winter 2004

- Discussions/Letters – HRM Council & Planning Staff
- Polling information – favourable

Spring 2004

- Panel – “Launch of the Growth Alternatives”
  - A – Density but emphasis on park and ride, least costly
  - B – More emphasis on “walkability”, more costly
  - C – Extensive, questionable impact with population size – most costly

Filling the Information Gap

Summer 2004

- *Cost of Physical Inactivity in Halifax Regional Municipality*

Fall 2004

- Release of the report
- Media, fact sheets
- Publications
- Presentations – multiple audiences

Meeting the Objectives

Contributing to the Regional Plan

December 2004

- RPC used HSFNS report in cost/benefit analysis of preferred alternative and B is chosen as the foundation

Meeting the Objectives

Secondary

- Political Debate
  - Municipal – Mayoral debate
  - Provincial – Legislative Assembly
  - Federal – House of Commons
- Public
  - Publications
  - Presentations
  - Media kits
  - Facts sheets

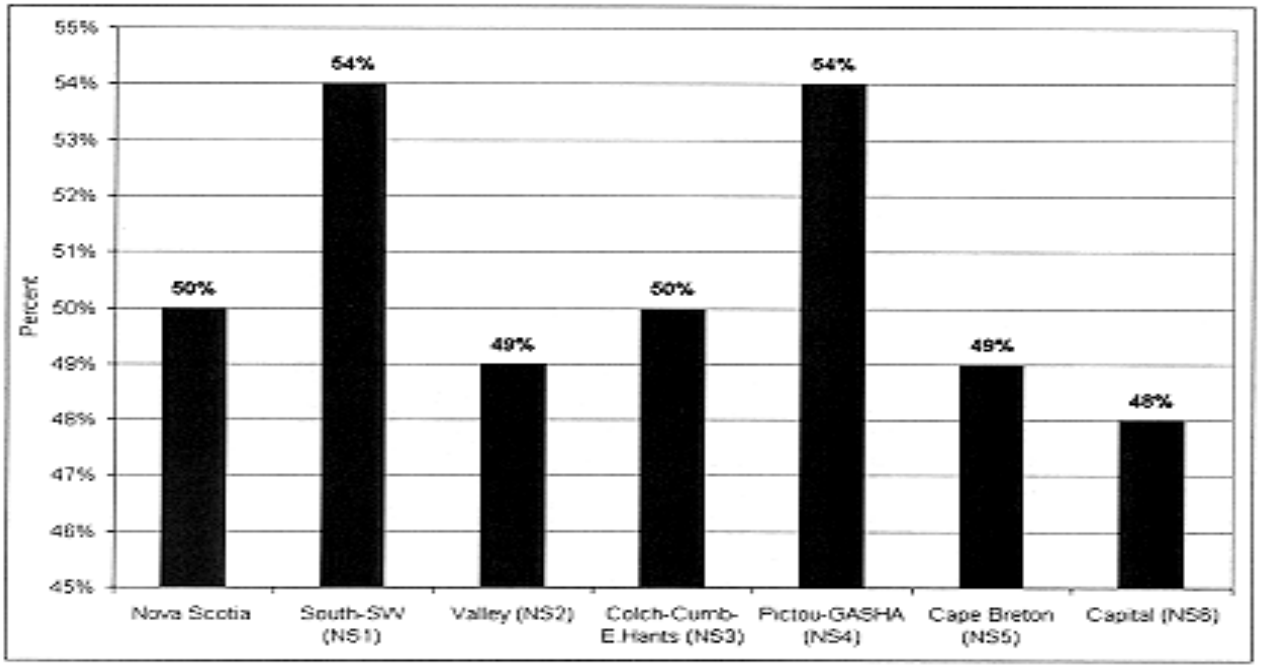
Cost of Physical Inactivity:

Obesity vs. Physical Inactivity

- Obesity has become an epidemic
- Childhood obesity  50% in 15 years
  - Obese pre-schooler has 25% chance of becoming an obese adult
  - Obese teenager has 75% chance of remaining obese for life
- Obesity more closely related to inactivity

Physical Inactivity by Health Region

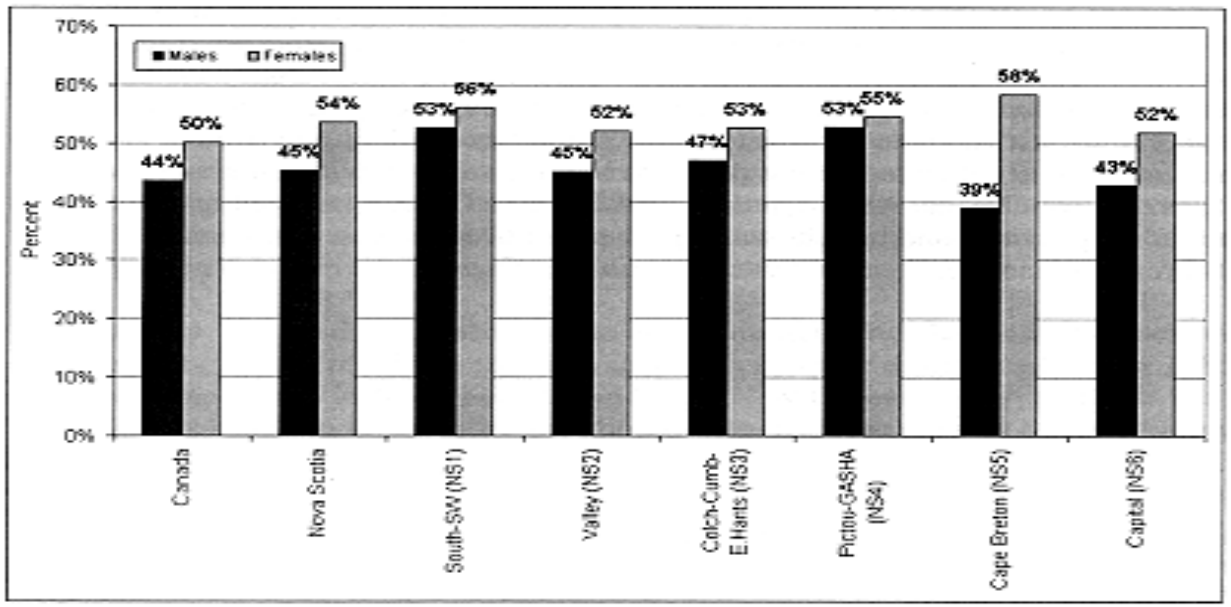
Inactive Nova Scotians (less than 1.5 kcal/kg/day), by Health Region, age 12+, 2003 (percent)



Source: Statistics Canada, *Canadian Community Health Survey 2003.*

Physical Inactivity by Health Region and Gender

Inactive Nova Scotians (less than 1.5 kcal/kg/day), by Health Region and Sex, age 12+, 2003 (percent)



Source: Statistics Canada, Canadian Community Health Survey 2003.

Neighbourhoods and Cars

- Walkability and connectedness of neighbourhoods are strongly associated with a **decrease** in the risk of obesity.

- Increased time spent in a car is associated with an **increase** risk of obesity.

Access

- Safe Streets and Public Places
  - 49% of Canadians
  - 52% of Nova Scotians
- Access to paths, trails, and open spaces
  - 42% of Canadians
  - 40% of Nova Scotians

Significance of Density

- One of the most important considerations for urban planning which can increase rates of physical activity.
    - Is the provision of services within walking distance for most residents?

Nova Scotia vs. HRM

- More than **700** Nova Scotians die prematurely each year
- Direct and indirect costs in Nova Scotia
  - **$354** million annually

- 200 HRM residents die prematurely each year
- Direct and indirect costs in HRM
  - **$68 million annually**
  - **$180 per HRM resident per year**

Cost of Physical Inactivity in HRM

Direct Costs

Health Care Costs for Chronic Diseases Linked to Physical Inactivity in HRM ($C2003 thousands), and Estimated Direct Economic Cost of Physical Inactivity

Disease	Hospital	Doctor	Drugs	Research	Other	Total Direct	Direct Cost Due to Inactivity*
Coronary heart disease	19,752.4	2,392.8	7,342.9	10.7	13,569.4	43,068.2	12,898.9
Stroke	11,090.7	678.4	1,802	3.8	6,244.5	19,819.4	3,165.2
Hypertension	1,383.2	852.1	4,737.7	142	3,272.9	10,387.9	1,658.9
Colon cancer	2,924.7	325.9	308.3	61.7	1,665.5	5,286.1	844.2
Breast cancer	3,601.6	401.4	379.7	75.9	2,051	6,509.6	565
Type 2 diabetes	1,021	374.3	834.9	29.2	1,039.4	3,298.9	526.8
Osteoporosis	7,277.5	1,801.9	2,919.4	27.9	5,532.3	17,559	3,894.6
Total	**47,051.1**	**6,826.9**	**18,325**	**351.2**	**33,374.9**	**105,929.1**	**23,553.7**

* Costs attributable to physical inactivity in the last column are calculated by multiplying the total direct costs of each disease in the previous column by the PAFs in Table 1.

Indirect Costs

Productivity Losses due to Physical Inactivity ($C2003 thousands), and Total Economic Costs of Physical Inactivity in Halifax Regional Municipality

Disease	Premature Death	Short-term Disability	Long-term Disability	Total Indirect	Total Indirect from Physical Inactivity
Coronary Heart Disease	71,322.7	1,047.1	7,261.9	79,631.7	23,849.7
Stroke	18,448.7	241.9	5,319.7	24,010.3	3,834.5
Hypertension	NA	84.6	1,395.4	1,480	236.4
Colon Cancer	10,096.3	171.8	1,264.1	11,532.2	1,841.7
Breast Cancer	17,811.6	211.5	1,556.7	19,579.9	1,699.5
Type 2 Diabetes	3,492.4	48.3	978.7	4,519.5	721.8
Osteoporosis	600.6	3,156.8	52,492.8	56,250.3	12,476.3
Totals	**121,772.5**	**4,962.1**	**70,269.3**	**197,003.9**	**44,659.9**

Total Costs

Total Direct and Indirect Costs of Physical Inactivity in HRM ($C2003 thousands)

Disease	Direct	Indirect	Total
Coronary Heart Disease	12,898.9	23,849.7	36,748.7
Stroke	3,165.2	3,834.5	6,999.5
Hypertension	1,658.9	236.4	1,895.4
Colon Cancer	844.2	1,841.7	2,685.7
Breast Cancer	565	1,699.5	2,264.5
Type 2 Diabetes	526.8	721.8	1,248.8
Osteoporosis	3,894.6	12,476.3	16,371.3
Total	**23,553.7**	**44,659.9**	**68,213.6**

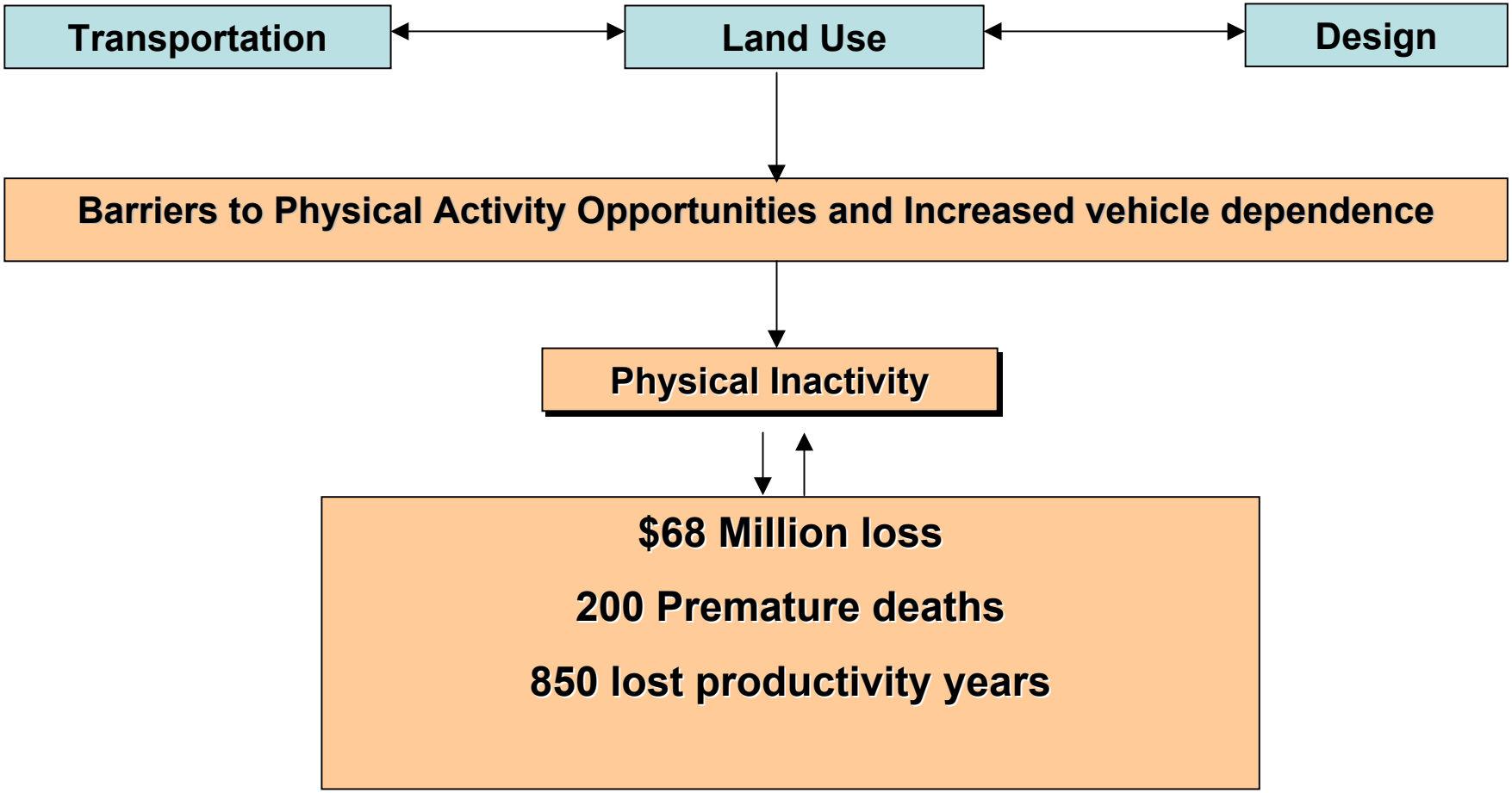
Small Change = Big Savings

- 48% of HRM were physically inactive in 2003
- A 10% reduction in inactivity could save 14 lives a year in Nova Scotia and avoid 59 potential years of life lost.
- **4.75 million less/year**

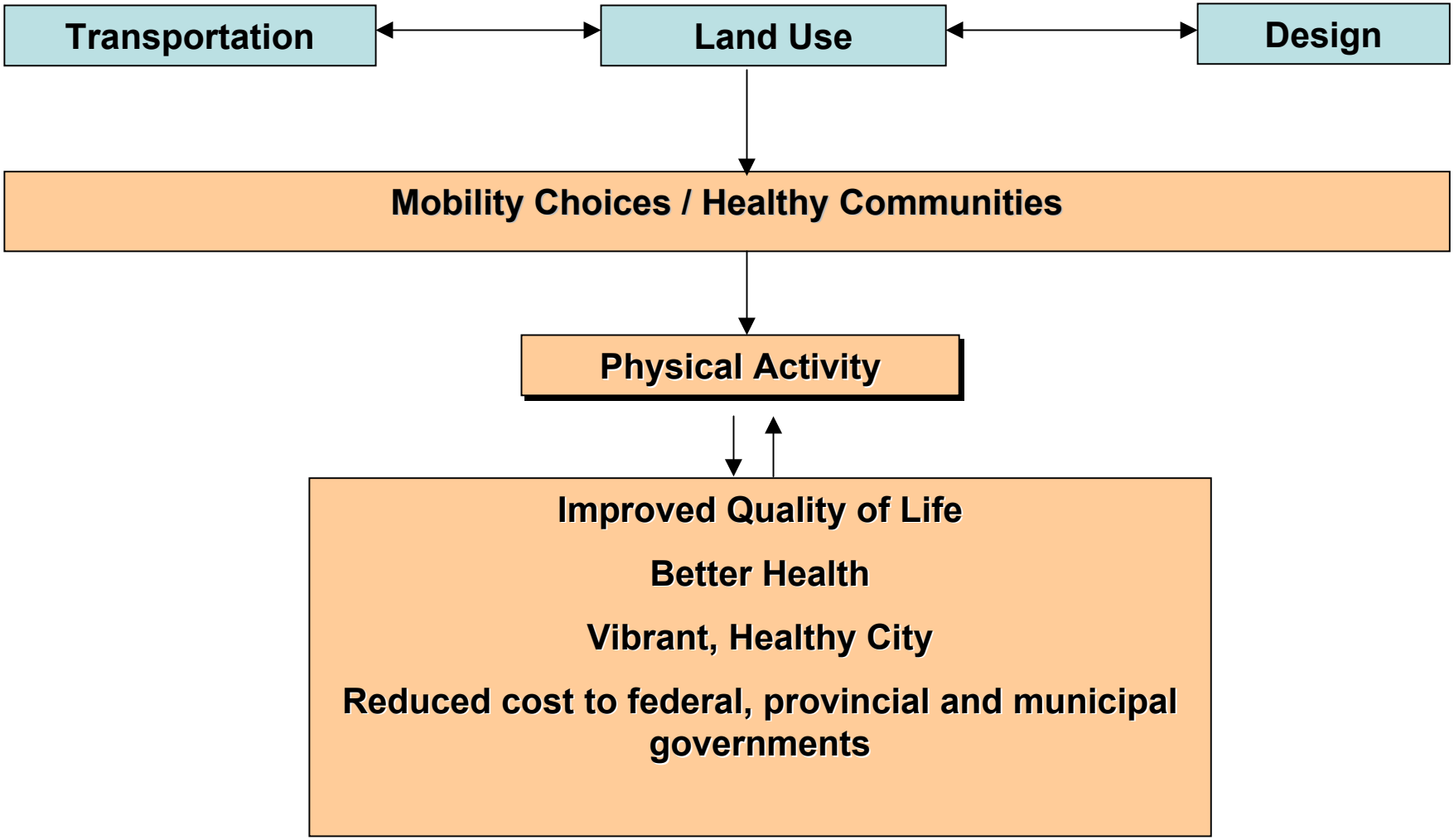
Results

- Planning decisions have a measurable impact on public health
  - Patterns of land development and investments in transportation make choices for physical activity more, or less, convenient
  - Costs and their impact on numerous sectors must be considered on a comprehensive basis.

Costs of Business as Usual



Results of Small Changes

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Thank You!

Discussion and Questions

HEART
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Finding answers. For life.