HAVING AN IMPACT

Canadian Institute for Economic Evaluation
February 6 to 9th

Clare O’Connor
Director, Policy and Government Relations
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

Heart and Stroke Foundation of Nova Scotia
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
Cost of Physical Inactivity in HRM

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.
Cost of Physical Inactivity in HRM

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.

Heart and Stroke Foundation of Nova Scotia
Cost of Physical Inactivity in HRM

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.
Cost of Physical Inactivity in HRM

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
Cost of Physical Inactivity in HRM

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
## Direct Costs

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

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

* 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.
Cost of Physical Inactivity in HRM

Indirect Costs

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

<table>
<thead>
<tr>
<th>Disease</th>
<th>Premature Death</th>
<th>Short-term Disability</th>
<th>Long-term Disability</th>
<th>Total Indirect</th>
<th>Total Indirect from Physical Inactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary Heart</td>
<td>71,322.7</td>
<td>1,047.1</td>
<td>7,261.9</td>
<td>79,631.7</td>
<td>23,849.7</td>
</tr>
<tr>
<td>Disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>18,448.7</td>
<td>241.9</td>
<td>5,319.7</td>
<td>24,010.3</td>
<td>3,834.5</td>
</tr>
<tr>
<td>Hypertension</td>
<td>NA</td>
<td>84.6</td>
<td>1,395.4</td>
<td>1,480</td>
<td>236.4</td>
</tr>
<tr>
<td>Colon Cancer</td>
<td>10,096.3</td>
<td>171.8</td>
<td>1,264.1</td>
<td>11,532.2</td>
<td>1,841.7</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>17,811.6</td>
<td>211.5</td>
<td>1,556.7</td>
<td>19,579.9</td>
<td>1,699.5</td>
</tr>
<tr>
<td>Type 2 Diabetes</td>
<td>3,492.4</td>
<td>48.3</td>
<td>978.7</td>
<td>4,519.5</td>
<td>721.8</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>600.6</td>
<td>3,156.8</td>
<td>52,492.8</td>
<td>56,250.3</td>
<td>12,476.3</td>
</tr>
<tr>
<td>Totals</td>
<td>121,772.5</td>
<td>4,962.1</td>
<td>70,269.3</td>
<td>197,003.9</td>
<td>44,659.9</td>
</tr>
</tbody>
</table>
## Total Direct and Indirect Costs of Physical Inactivity in HRM ($C2003 thousands)

<table>
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<th>Direct</th>
<th>Indirect</th>
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<td>23,849.7</td>
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<td>12,476.3</td>
<td>16,371.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23,553.7</td>
<td>44,659.9</td>
<td>68,213.6</td>
</tr>
</tbody>
</table>

Heart and Stroke Foundation of Nova Scotia
Cost of Physical Inactivity in HRM

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

Transportation → Land Use → Design

Barriers to Physical Activity Opportunities and Increased vehicle dependence

Physical Inactivity

$68 Million loss
200 Premature deaths
850 lost productivity years

Heart and Stroke Foundation of Nova Scotia
Results of Small Changes

Transportation \[\rightarrow\] Land Use \[\rightarrow\] Design

Mobility Choices / Healthy Communities

Physical Activity

Improved Quality of Life
  Better Health
  Vibrant, Healthy City

Reduced cost to federal, provincial and municipal governments

Heart and Stroke Foundation of Nova Scotia
Thank You!

Discussion and Questions

Finding answers. For life.

Heart and Stroke Foundation of Nova Scotia