How to make an economic case for physical activity to politicians and decision makers

Scotland - Costs of Physical Inactivity
You are the detective...

Identify the strategies Used to present economic information?
Cost estimates for physical inactivity in Scotland

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School for Policy Studies

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What costs Scotland more?

Highest

Lowest

3rd

2nd

(£ per Scot)

http://www.gov.scot/Topics/Health/Services/Alcohol
http://www.gov.scot/Topics/Health/Services/Smoking
Aims

• To outline the method, results and implications of a new estimate of the cost of physical inactivity for Scotland
“I think you should be more explicit here in step two.”
Methods for developing cost estimates for physical inactivity

- Identify diseases related to physical inactivity (PiA)
- Identify total costs of diseases related to physical activity to the NHS Scotland
- Identify the relative contribution of PiA to each disease – the *Population Attributable Fraction (PAF)*
- Apply the PAF to the cost per disease
- Calculate overall costs
• Total cost of physical inactivity to Scotland 2012

£91.4M

£18.00 per person
Total cost of physical inactivity to Scotland 2015

- Total cost of physical inactivity to Scotland 2015
  £77M

- £14.60 per person
Mortality rates from Scotland's big 3 killers, cancer, coronary heart disease and stroke are declining

What costs could also be added?

• Other disease areas direct health service costs
  • Dementia & Alzheimer’s Disease **+74% increase**
  • Mental health
  • Obesity
  • Falls

• Indirect costs
  • Lost productivity
  • Premature mortality

• Others?
Let’s make comparisons easy to understand

space required to transport 60 people

car
bus
bicycle

(Poster in city of Muenster Planning Office, August 2001) Credit: PressOffice City of Munster, Germany
Cost of physical inactivity (£/population) related disease by SHA

Cost of doing Nothing
£14 ~ €16.6

Foster et al, 2009
Cost of physical inactivity (£/population) related disease by SHA

Spend in London is 85p per head ~ €1

Foster et al, 2009
Scotland's Spending Plans and Draft Budget 2017-18

Sport

<table>
<thead>
<tr>
<th>Level 3</th>
<th>2016-17 Draft Budget £m</th>
<th>2016-17 Budget £m</th>
<th>2017-18 Draft Budget £m</th>
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</thead>
<tbody>
<tr>
<td>Sport and Legacy</td>
<td>42.5</td>
<td>42.3</td>
<td>39.1</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>3.3</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td><strong>45.8</strong></td>
<td><strong>45.6</strong></td>
<td><strong>42.4</strong></td>
</tr>
<tr>
<td>DEL Resource</td>
<td>45.8</td>
<td>36.1</td>
<td>42.4*</td>
</tr>
<tr>
<td>DEL Capital</td>
<td>-</td>
<td>9.5</td>
<td>-</td>
</tr>
</tbody>
</table>
The Cost of Physical Inactivity to Scotland
Based on research commissioned by the British Heart Foundation
These figures do not include the costs of conditions including dementia and mental health issues

Physical Inactivity costs the NHS in Scotland

~£77 million p/a
equating to a cost of £14.60 per person!

Spend on sport and physical activity is £7.89 per person
Spend on sport and physical activity is £7.89 per person

Active Transport Spend…..

£14.80 per person

£22.69
Blueprint for using economic tools for physical activity implementation

PHASE ONE
To identify the economic burden of physical inactivity and appropriate interventions or policies
1. What are appropriate policies and interventions?
2. What are their economic costs and benefits?
3. What are additional costs and benefits of interventions and policies across sectors?

PHASE TWO
To identify the economic costs and benefits for an intervention or policy might need adaption/piloting
1. What resources are needed to scale up and how do you mobilise these?
2. What are the cross-sectoral economic benefits and costs?
3. What are the economic impacts at a population level?

PHASE THREE
To identify the economic costs and benefits of full implementation of intervention or policy
1. What is the reach and adoption of the policy or intervention?
2. How effective is it?
3. What are the economic costs and benefits?

PHASE FOUR
To identify the economic costs and benefits of full implementation of intervention or policy at scale
1. What are the benefits of pilot intervention studies?
2. What are the benefits and their value across sectors?

Adapted from D’Esposito F, Thomas E and Oldenburg B. A practical guide for implementation research to improve the prevention and control of NCDs. WHO, 2016
Phase 2  What are the economic benefits /costs of adaptations and piloting of interventions or policies?

Aim  To identify the economic costs and benefits for an intervention or policy which might need adaption/piloting

Actions  What are the health benefits of pilot intervention studies? What are the benefits and their value across other sectors?

Tools  For Sport MOVES TOOL
For Active Transport WHO HEAT Tool
Workplace NICE Business Case Tool
Implications

• Any estimate has limitations
• The incidence and costs of 5 main diseases are changing and are an **UNDERESTIMATE**
• New methods include costs of other PI diseases
• Use economic tools
  • EPHEPA Blueprint
• Promoting physical activity and sport is the optimal prevention spend
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(£ per Scot)

http://www.gov.scot/Topics/Health/Services/Alcohol
http://www.gov.scot/Topics/Health/Services/Smoking
What costs Scotland more?

£900

£55.43

£14.60

£444

(£.per.Scot)

http://www.gov.scot/Topics/Health/Services/Alcohol
http://www.gov.scot/Topics/Health/Services/Smoking
Does physical activity moderate the association between alcohol drinking and all-cause, cancer and cardiovascular diseases mortality? A pooled analysis of eight British population cohorts

K Perreault,¹,² A Bauman,²,³ N Johnson,²,⁴ A Britton,⁵ V Rangul,³ E Stamatakis²,⁴,⁵

Objective To examine whether physical activity (PA) reduce alcohol consumption have involved alcohol risk reducing campaigns and measures aimed at

(£ per Scot)

http://www.gov.scot/Topics/Health/Services/Alcohol
http://www.gov.scot/Topics/Health/Services/Smoking
Leisure-time physical activity and lung cancer risk: A systematic review and meta-analysis

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ABSTRACT

Objectives: We conducted a systematic review and meta-analysis of the association between recreational physical activity and lung cancer risk to update previous analyses and to examine population subgroups of interest defined by smoking status and histology.

Materials and methods: We searched the PubMed database for studies up to May 2015. Individual study
Urban design, transport, and health 2

Land use, transport, and population health: estimating the health benefits of compact cities

Mark Stevenson, Jason Thompson, Thiago Hérick de Sá, Reid Ewing, Dinesh Mohan, Rod McClure, Ian Roberts, Geetam Tiwari, Billie Giles-Corti, Xiaoduan Sun, Mark Wallace, James Woodcock

Using a health impact assessment framework, we estimated the population health effects arising from alternative land-use and transport policy initiatives in six cities. Land-use changes were modelled to reflect a compact city in which land-use density and diversity were increased and distances to public transport were reduced to produce low motorised mobility, namely a modal shift from private motor vehicles to walking, cycling, and public transport. The modelled compact city scenario resulted in health gains for all cities (for diabetes, cardiovascular disease, and respiratory disease) with overall health gains of 420–826 disability-adjusted life-years (DALYs) per 100,000 population. However, for moderate to highly motorised cities, such as Melbourne, London, and Boston, the compact city scenario predicted a small increase in road trauma for cyclists and pedestrians (health loss of between 34 and 41 DALYs per
The Cost of Physical Inactivity to Scotland

Based on research commissioned by the British Heart Foundation

These figures do not include the costs of conditions including dementia and mental health issues

Physical Inactivity costs the NHS in Scotland

\(~£77\) million p/a

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<table>
<thead>
<tr>
<th>The Cost of the Big 5</th>
<th>Sector Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>per year due to physical inactivity</td>
<td>per year due to physical inactivity</td>
</tr>
<tr>
<td>Coronary Heart Disease</td>
<td>Acute Services</td>
</tr>
<tr>
<td>£25 million</td>
<td>£44 million</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Pharmaceutical Services</td>
</tr>
<tr>
<td>£15 million</td>
<td>£11 million</td>
</tr>
<tr>
<td>Cerebrovascular Disease</td>
<td>General Medical Services</td>
</tr>
<tr>
<td>£15 million</td>
<td>£7.5 million</td>
</tr>
<tr>
<td>Gastro Intestinal Cancer</td>
<td>Geriatric Long Stay</td>
</tr>
<tr>
<td>£12 million</td>
<td>£5 million</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>A&amp;E and Outpatients</td>
</tr>
<tr>
<td>£9.5 million</td>
<td>£3 million</td>
</tr>
</tbody>
</table>

Coronary Heart Disease costs equate to 32% of all the costs incurred due to physical inactivity.

The cost per person in Scotland for physical inactivity is more than £1 higher than England.

Acute & Pharmaceutical Services combined accounted for 90% of the total costs to the NHS.
Process

• Use local data
• Make data simple
• Make comparisons with rivals
• Feature existing good projects so you can build on current strengths
• Present solutions as options
  • You could v you should (no one likes being told what to do)
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