PRESENTAZIONE DI MARTIN McKEE

AL

11^ FORUM MERIDIANO SANITÀ

Palazzo Rospigliosi - Roma

15 novembre 2016

Questa documentazione costituisce la base sintetica di una presentazione, ed è incompleta senza i commenti e le integrazioni del relatore. Data la natura interattiva dell’iniziativa, è probabile che non tutti i lucidi qui previsti siano utilizzati nel corso delle presentazioni e/o che ne possano essere utilizzati altri, qui non contenuti.

Riprodotta da The European House - Ambrosetti, per gentile concessione dell’Autore, per esclusivo uso interno.
Health and wealth: 
the argument for investment

Rome, November 2016

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London School of Hygiene & Tropical Medicine and 
European Observatory on Health Systems and Policies

EU Health Strategy
“Together for Health: A Strategic Approach for the EU 2008-2013”

• Fundamental principles for EC action on health:

1) A strategy based on shared health values
2) "Health is the greatest wealth“
3) Health in all policies (HIAP)
4) Strengthening the EU's voice in global health
Three sets of relationships

The easy bits

1. Wealthy people (and countries) can make healthier choices and obtain easier access to diagnosis and treatment when needed
2. Greater wealth provides more money to spend on health systems (if governments and other payers chose to do so)
Some basics: How can we conceptualise “economic costs and benefits”?  

1) The cost of health care 
2) The cost of lost productivity 
   a) Microeconomic costs 
   b) Macroeconomic costs 
3) The cost of losing the value of years of healthy life
Does better health reduce future health care costs?

1) Health care costs

• Does improved health reduce health care costs? (or, put another way)
• Does ill health increase health care costs?
**Economic burden of cancer across the European Union: a population-based cost analysis**

<table>
<thead>
<tr>
<th>Country</th>
<th>Health-care costs per person (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>16</td>
</tr>
<tr>
<td>Lithuania</td>
<td>18</td>
</tr>
<tr>
<td>Romania</td>
<td>20</td>
</tr>
<tr>
<td>Latvia</td>
<td>26</td>
</tr>
<tr>
<td>Poland</td>
<td>37</td>
</tr>
<tr>
<td>Malta</td>
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<tr>
<td>Hungary</td>
<td>53</td>
</tr>
<tr>
<td>Cyprus</td>
<td>57</td>
</tr>
<tr>
<td>Estonia</td>
<td>57</td>
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<tr>
<td>Portugal</td>
<td>57</td>
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<tr>
<td>Slovakia</td>
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<tr>
<td>Czech Republic</td>
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<tr>
<td>Slovenia</td>
<td>72</td>
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<tr>
<td>UK</td>
<td>85</td>
</tr>
<tr>
<td>Spain</td>
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</tr>
<tr>
<td>Belgium</td>
<td>94</td>
</tr>
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<td><strong>European Union</strong></td>
<td><strong>102</strong></td>
</tr>
<tr>
<td>Denmark</td>
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</tr>
<tr>
<td>Sweden</td>
<td>105</td>
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<td>France</td>
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<td>Greece</td>
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<td>Italy</td>
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<td>Netherlands</td>
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<td>Ireland</td>
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<td>Austria</td>
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<td>Finland</td>
<td>151</td>
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<td>Germany</td>
<td>182</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>184</td>
</tr>
</tbody>
</table>

*Source: Luengo-Fernandez et al. Lancet 2013*

**Health and safety: A balance sheet**

- **€200/year** Prevention
- **€3,000/ year** Early retirement
- Sick leave
- Accidents
- Permanent disability (presenteeism)

*Source: Ahonen*
How improved health could affect lifetime health care costs?

<table>
<thead>
<tr>
<th>Health Parameter</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less disease and disability at a given point in time, for a given population, or at a given age</td>
<td>DECREASE</td>
</tr>
<tr>
<td>Additional life years</td>
<td>INCREASE</td>
</tr>
<tr>
<td>Lower acute health care costs of dying at older ages</td>
<td>DECREASE</td>
</tr>
<tr>
<td>Higher long term care costs of dying at older ages</td>
<td>INCREASE</td>
</tr>
</tbody>
</table>

Bottom line effect: ??

Return on investment (US data)

- Investment of US$10 per person per year for ‘proven community-based disease prevention programs (on) physical activity, nutrition, and (reducing tobacco use can lead to reductions of:
  - type 2 diabetes and high blood pressure by 5% in 1 to 2 years;  
  - heart disease, kidney disease and stroke by 5% in 5 years; and   
  - some forms of cancer, COPD and arthritis by 2.5% in 10 to 20 years.
- This yields net savings of almost US$18 annually, a return on investment of 6.2 for every US$1 invested.

Does better health increase wealth?

2) Productivity costs

a) Microeconomic
b) Macroeconomic

- More relevant economic cost categories…
- …but challenging to assess empirically (→ causality?)
Productivity costs: microeconomic

The impact of health on wages and earnings

- UK (2004): People in excellent (vs less than excellent) health increases hourly wages by ~ £1
- Sweden (2000): Women with work absence due to own health problem have significantly lower wages, while for child’s illness have no such loss.
- US (2004): Impact of serious illness in men greatest when in 40s, but for women if in 30s
- US (1986): Episode of mental illness reduces wages by 24% and effect persists for at least 15 years
The impact of health on labour supply

• Ireland (2003): Those with chronic illness or disability “severely” hampering daily activities less likely to work:
  – Men 61% less
  – Women 52% less
• Germany (1998): Suffering a “health shock” reduced probability of working in subsequent years
  – 5.3% less in next year
  – 17.5% less after 2 years

The impact of health on labour supply

• Early retirement
  – Those in poor health tend to retire 1-3 years earlier
  – Long term health problem beginning at 55 reduced age at retirement by 2.8 years
  – Heart attack or stroke affecting daily activities after age 50 increased probability of early retirement by 42%
The impact of health on labour supply of carers

• Men caring for sick wives likely to leave labour force
• Women caring for sick husbands more likely to join labour force

Health and education

• Very good or better health in childhood associated with a third of a year more in school
• Major Illness before age 21 decreased education on average by 1.4 years.
• Negative effect on educational outcomes of smoking or poor nutrition greater than that of alcohol consumption or drug use.
• Significant positive impact of physical exercise on academic performance.
• Obesity and overweight negatively associated with educational outcomes.
• Sleeping disorders hinder academic performance.
• Very little research on effect of anxiety and depression
• Asthma reduces school attendance but does not seem to affect performance and attainment.
Impact of health on savings

• Theory predicts that improved health will increase savings (which are needed for investment in economy)
• Individuals have greater probability of reaching retirement and so will save for this
• This is confirmed in low income countries
• Insufficient evidence from high income countries

CVD and economic growth

• 26 high-income countries
• 1960-2000 in 5-year intervals
• Explanatory variables:
  – Initial income per capita
  – Secondary schooling
  – Openness of the economy
• “A ten percent increase in CVD mortality rate among the working age population decreases the per capita income growth rate by about one percentage point.”

Source: Suhrcke & Urban 2009
3) “value of life” costs

- So far we have only looked at cost of illness and lost productivity
- But surely life itself has a value, and maybe even greater than the other losses
- How much do people value health & life?
- How can we measure such non-market goods?

Value of an (American) statistical life: Recent estimates

- $9.1 million
  – Environmental Protection Agency, 2010
- $7.9 million
  – Food and Drug Administration, 2010
- $9.4 million
  – Transportation Department, 2015
- $9.1 million
  – Viscusi, Vanderbilt University, 2013
4) Public-policy relevant and public-policy irrelevant costs

• When do “costs” justify public policy intervention?

“If people want to be fat, smell like ashtrays and die early, let them.”

The Economist, 9/11/2006

“The state has no business with your plate”


“Intercontinental health nannying”

The Economist, 6/03/2003 on WHO’s Framework Convention on Tobacco
Many economic arguments for action

• Externalities associated with poor health behaviours: e.g. impacts on family members, public; these costs are not reflected in market prices

• Information failures - individuals have insufficient information to make fully informed choices on their health

• Individuals are often myopic and believe they can avoid future health problems and ‘enjoy’ benefits of poor lifestyle

• Addiction can also prevent rational behaviour

Cost of smoking incurred by a 24-year old smoker in the US

<table>
<thead>
<tr>
<th></th>
<th>Mean cost per smoker</th>
<th>Cost per pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private cost (to smoker)</td>
<td>$141,181</td>
<td>$32.78</td>
</tr>
<tr>
<td>Quasi-external cost (to household)</td>
<td>$23,407</td>
<td>$5.44</td>
</tr>
<tr>
<td>External cost (to society)</td>
<td>$6,201</td>
<td>$1.44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$170,789</strong></td>
<td><strong>$40</strong></td>
</tr>
</tbody>
</table>

Source: Sloan et al 2004
Preventing future costs
The Wanless Report:
UK Treasury (not Department of Health!)

• The questions
• What is the best way to pay for health care?
• How can we minimise the growth in expenditure

• The answers
• General taxation
• Make sure that:
  – Diseases are prevented from occurring
  – Treatment provided is timely and effective
• “Fully engaged” health system

The potential impact

Anticipating the future: Projections of future expenditure on UK NHS under three scenarios

£50 bn

Source: Wanless Report
Can health systems promote economic development?

Investing in growth?

• Olivier Blanchard, Chief Economist of the IMF has recalculated the fiscal multiplier – the impact of additional spending on GDP growth
• Larger than previously thought – about 1.6
• So maybe increased government spending would actually make things better?
Where should we invest?

Fiscal Multipliers of Government Spending by type of spending

<table>
<thead>
<tr>
<th>Types of Government spending</th>
<th>Estimate</th>
<th>Lower Limit</th>
<th>Upper Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>-2.5</td>
<td>-4.13</td>
<td>-0.87</td>
</tr>
<tr>
<td>Economic Affairs</td>
<td>0.06</td>
<td>-0.71</td>
<td>0.84</td>
</tr>
<tr>
<td>General Public Services</td>
<td>0.62</td>
<td>-0.79</td>
<td>2.02</td>
</tr>
<tr>
<td>Social Protection</td>
<td>2.88</td>
<td>1.94</td>
<td>3.81</td>
</tr>
<tr>
<td>Health</td>
<td>4.32</td>
<td>2.51</td>
<td>6.14</td>
</tr>
<tr>
<td>Culture &amp; Recreation</td>
<td>7.57</td>
<td>-3.81</td>
<td>18.95</td>
</tr>
<tr>
<td>Education</td>
<td>8.24</td>
<td>3.94</td>
<td>12.54</td>
</tr>
<tr>
<td>Environment</td>
<td>8.39</td>
<td>-3.84</td>
<td>20.62</td>
</tr>
<tr>
<td>Total Government</td>
<td>1.61</td>
<td>1.37</td>
<td>1.86</td>
</tr>
</tbody>
</table>

Towards a virtuous circle?

Thank you for your attention

Analysing Health Systems and Policies