Bringing health into transport planning:

the new Health Economic Assessment Tool for Walking and Cycling

Informal Document No 7

Walking and cycling: the potential for better health

- Physical activity plays an important role in health:
  - CVD, Cancers, diabetes type 2, depression, functional limitations, obesity, ...

- For example, regular walking and cycling can reduce all-cause mortality by up to 30%
  - Benefits of w/c outweigh the risks (injuries, air pollution etc) by far
The benefits of walking and cycling: helping other sectors achieve their own goals

- It’s easy and equitable
  - Avoids dependence on facilities for physical activity
  - Most people can do it: equitable and easily accessible
  - Does not require much extra time
  - Minimal investment of household income

- It can have a big impact
  - In Europe, many car trips are short
  - Shifting some of these trips to walking and cycling can help to
    - Improve road safety, air quality and noise
    - Reduce need for more infrastructure for cars
    - Improved accessibility and quality of urban life
    - Reduce congestion, energy consumption and CO2 emissions
    - Complement technological improvements to vehicles and fuels

...and there can also be benefits for job creation

- Active travel, bike share schemes
- Improved public transport and increased attractiveness
- Technology to reduce emissions per mode
- Encouraging behavior change
- Mobility management
- Freight (e.g. cargo bikes)
- Tourism
- ...
Health Dividends from Green Growth

- Much greater health gains from shifting to rapid transit/public transport and walking and cycling than from improving fuel and vehicle efficiency.

The question

- If $x$ people walk/cycle a distance of $y$ kilometers on most days, what is the economic value of the health benefits that occur as a result of the reduction in mortality due to their physical activity?
Collaborative project

Core group
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The answer
http://www.euro.who.int/HEAT

HEAT - Health Economic Assessment Tool (HEAT) for walking and for cycling.

Introduction
HEAT for cycling
HEAT for walking
Current Assessment
Previous Assessments
Acknowledgements

More information
What data do I need?
To produce an assessment, you need to provide data on the number of people walking or cycling, and the amount of walking they are doing (or are projected to do).

HEAT attaches a value to the estimated level of cycling or walking when the new infrastructure is in place. This can be compared to the costs of implementing different interventions to produce a benefit-cost ratio.

20/11/2012
**The features**

- Step-by-step online tool to calculate the economic value of the health benefits of regular walking and cycling
- Recognises importance of economic analysis in transport: benefit-cost ratio is king
- Evidence-based, transparent and adaptable
- Various data entry options
- Explanations, tips and hints on every step
- Print and save results

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**Example: Moscow**

Reduced mortality as a result of changes in walking behaviour

The walking data you have entered corresponds to an average of 30 minutes per person per day.

This level of walking provides an estimated protective benefit of 23% compared to persons not walking regularly.

From the data you have entered, the number of individuals who benefit from this level of walking is 155,000.

Out of this many individuals, the number who would be expected to die this year if they don’t walk regularly would be 1,261.

The number of deaths per year that are prevented by this level of walking is: 394.27

Financial savings as a result of walking

Currency: EUR, rounded to 2000

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The value of statistical life in your population</td>
<td>1,571,000 EUR</td>
</tr>
<tr>
<td>The annual benefit of this level of walking, per year</td>
<td>482,063,000 EUR</td>
</tr>
<tr>
<td>The total benefits accumulated over 10 years are</td>
<td>4,826,350,000 EUR</td>
</tr>
<tr>
<td>When future benefits are discounted by 5% per year</td>
<td></td>
</tr>
<tr>
<td>the current value of the average annual benefit, averaged across 10 years is</td>
<td>372,237,000 EUR</td>
</tr>
<tr>
<td>the current value of the total benefits accumulated over 10 years is</td>
<td>3,722,366,000 EUR</td>
</tr>
</tbody>
</table>
HEAT use worldwide

HEAT user guide launched in spring 2012

- Complete HEAT for walking and cycling website and guide to be available in English, French, German, Finnish, Spanish and Russian by February 2013
Dissemination events

- THE PEP side event at ITF Forum (May 2011)
- POLIS conference (November 2011)
- THE PEP side event in Astana (September 2011)
- THE PEP workshops Kyiv (2011) and Moscow (2012)
- Direct mailings
- Through European Commission (DG SANCO, DG MOVE, DG EAC)
- WHO Healthy Cities Conference, St Petersburg (June 2012)
- PHAN project city dissemination events (2012)

Next steps

- Translations (winter 2012/13)
- Offline mode (fall 2012)
- Trainings (starting 29 November)
- Documentation of successful applications
- Expert meeting on updating and expanding the functionality and scope of HEAT (December 2012):
  - air pollution, injuries, CO2, morbidity
- Further PHAN city dissemination (September 2012), e.g. HEPA Europe meeting
national transport awards

highly commended 2011

Contribution to Sustainable Transport

World Health Organization Regional Office
for Europe – Health Economic Assessment Tool (HEAT) for coding and costing

Heathrow