PHYSICAL ACTIVITY THROUGH SUSTAINABLE TRANSPORT APPROACHES

The new WHO Health Economic Assessment Tool for Walking and Cycling

-

an introduction

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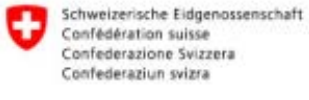
A collaborative project



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Software development and design: Tomasz Szreniawski, Alberto Castro Fernandez, Ali Abbas, Vicki Copley, Duy Dao

Expertise involved:

Epidemiology / Public Health	**Environmental Science**	**Air pollution**	**Health Economics**
Transport Economics	**Transport Planning**	**Policy making**	**Practice / Advocacy**

For whom was HEAT originally developed?

53 Member States:

- Civil servants
- Staff supporting policy makers,
- Officers/experts locally responsible for transport and urban planning

HEAT “core principles”

- Scientific robustness
- Usability
  - Minimal data input requirements
  - Availability of default values
  - Clarity of prompts/questions
  - Design and flow of the tool
- Transparency
  - Approach and assumptions
- Conservative
- Adaptable
- Modular

What is the HEAT?

- Online tool www.heatwalkingcycling.org
- Designed for transport planners
- Economic assessment of health benefits of walking or cycling
- Effects on mortality ‘only’
- Evidence-based
- Transparent
- Adaptable

What can you use it for?

- **Assessing current (or past) levels of cycling/walking**
  - What is walking/cycling worth now in my city, region, country?
- **Assessing changes over time**
  - E.g. before – after, scenario A vs. scenario B
- **Evaluating new or existing projects,**
  - Value of health benefits of investments and benefit–cost ratios

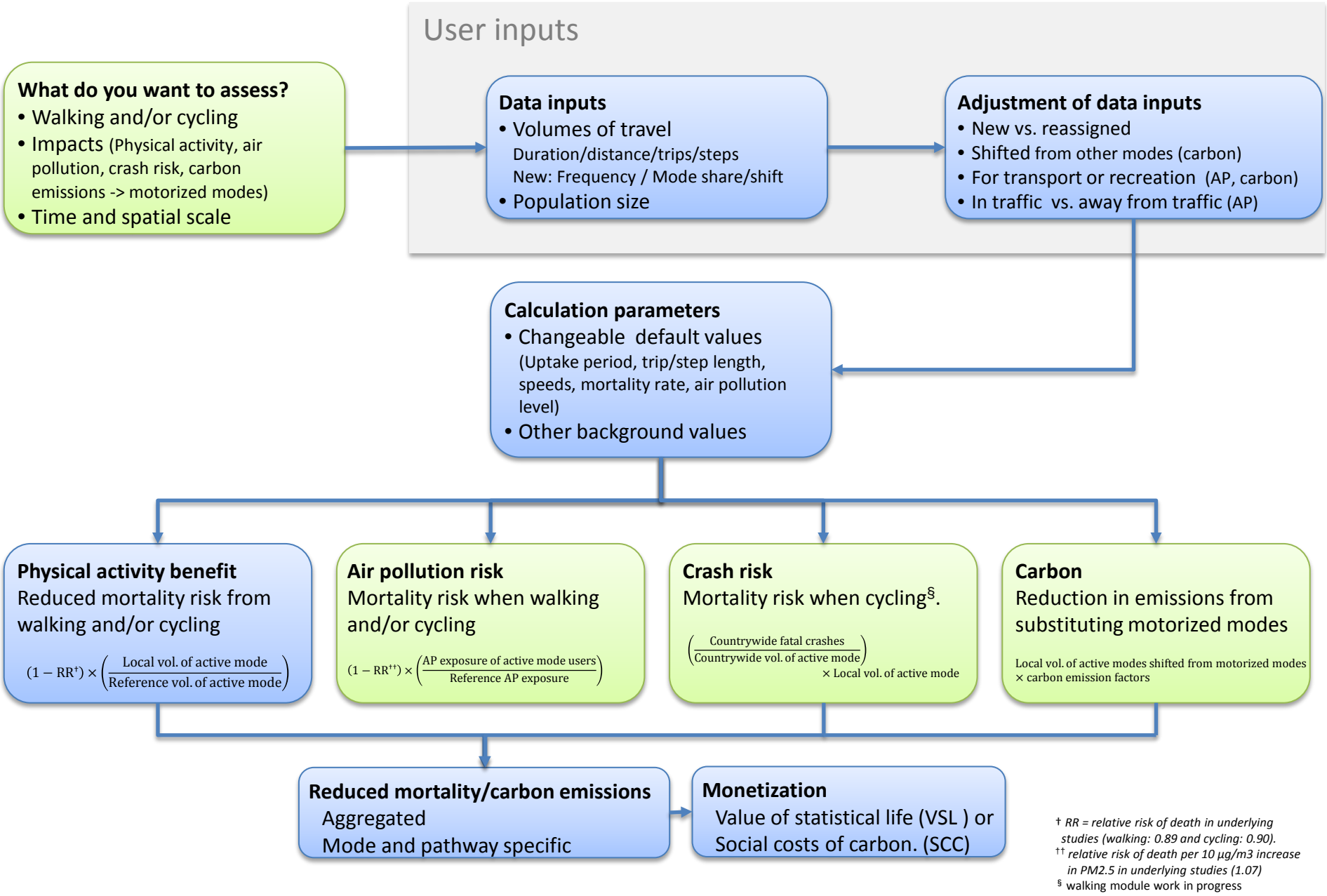
The question

If *x* people walk/cycle an amount of *y* 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?

New HEAT options

- How much do air pollution or crashes affect these results?
- What are the carbon effects?

Basic functioning of the new HEAT 4.0



† *RR = relative risk of death in underlying studies (walking: 0.89 and cycling: 0.90).*
†† *relative risk of death per 10 µg/m3 increase in PM2.5 in underlying studies (1.07)*
§ walking module work in progress

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www.heatwalkingcycling.org

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Demo: the question

If the ***adult population of Geneva*** cycled on average ***10 minutes per day more***,

what is the **economic value of the health benefits** as a result of the reduction in mortality due to their **physical activity**

(and increase in mortality due to **air pollution** and **crash risk**)?

And what are the related **carbon effects**?