



PHYSICAL ACTIVITY THROUGH
SUSTAINABLE TRANSPORT APPROACHES

The new WHO Health Economic Assessment Tool for Walking and Cycling

-
an introduction



 World Health
Organization

REGIONAL OFFICE FOR
Europe

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A collaborative project



Federal Ministry for the
Environment, Nature Conservation
and Nuclear Safety



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UNECE



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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?



- 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

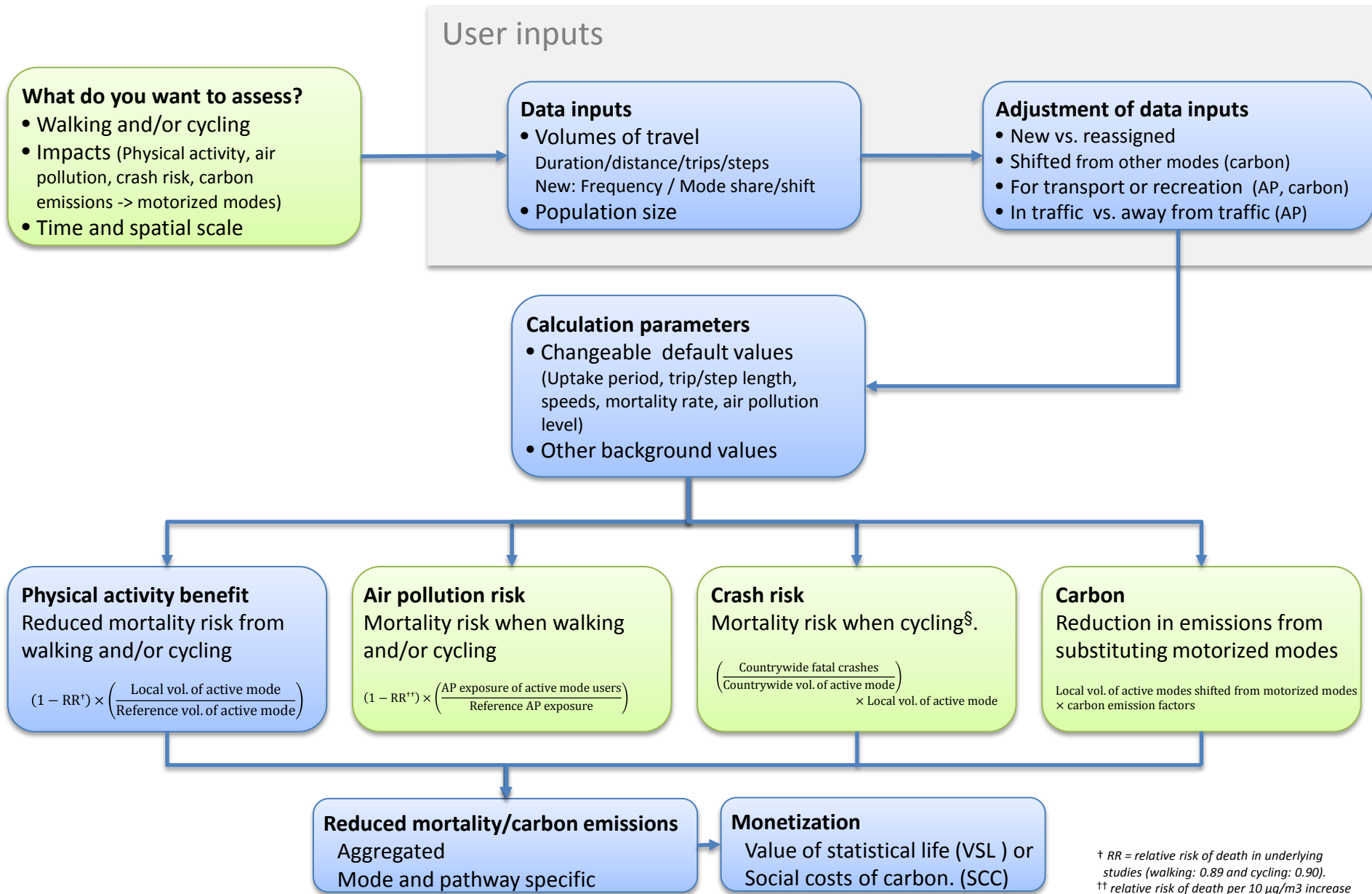
The question

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 PM_{2.5} 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**?