EUROPEAN CYCLISTS´ FEDERATION

FACTSHEET
Valuing health benefits of cycling – HEAT for Cycling

WHY VALUE THE HEALTH BENEFITS OF CYCLING?

It's complex

Research has provided plenty of evidence that cycling reduces the risk of premature death from heart disease, as well as the risk of developing diabetes, high blood pressure, developing colon and breast cancer. It also reduces feelings of depression and anxiety and helps control weight. These are but a few of the amazing benefits of cycling.

So, while it is clear that the health benefits of cycling are overwhelming, valuing health effects is a complex undertaking, and transport planners are often not well equipped to do this.

Cross-sectoral understanding

Health indicators such as disability-adjusted life-years (DALYs) or quality-adjusted life-years (QALYs) are concepts that transport planners and cycling advocates may find difficult to understand.

Fortunately, health effects can also be expressed in monetary terms. Using monetary units offers the advantage of comparing costs and benefits and assessing whether a proposed policy is worth its costs.

Quantifying health outcomes in economic terms allows the results to be integrated into a broader economic assessment, for example of transport infrastructure. This fosters cross-sectoral policy making, which is so crucial to sound and comprehensive cycling policies. Cycling is indeed associated with at least half a dozen governmental departments, such as the environment, energy, sports, climate, transport and of course health!

HOW DO YOU VALUE THE HEALTH BENEFITS OF CYCLING? - WHO's 'HEAT for Cycling'

The World Health Organization (WHO) has developed a tool, 'HEAT for Cycling', that monetises some of the health benefits of cycling.

What does 'HEAT for Cycling' estimate?

'HEAT for cycling' estimates the maximum and mean annual benefits, in terms of reduced mortality as a result of cycling.

HEAT answers the following question: "If X people cycle for Y minutes 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?"

Physical activity has also positive effects on many aspects of morbidity, but as evidence on morbidity is currently weaker than that on mortality, HEAT focuses for the time being only on 'all-cause mortality', producing conservative estimates of health benefits.

Relative risk estimates

The tool is based on the relative risk data from three combined Copenhagen cohort studies which found a relative risk of all-cause mortality of 0.72 among regular commuter cyclists (i.e. 3 hours/week, 36 weeks/year), relative to the general population. This means that, in any given year, regular cyclists are 28% less likely to die from any cause than non-cyclists .

What data do I have to input?

Data needs are limited: an estimation of how many people are cycling; an estimate of the average time spent cycling. Default values are proposed namely for the mortality rate, for the value of life or for the period of time over which average benefits are to be calculated. These can easily be substituted by more relevant data when available.

What can 'HEAT for cycling' be used for?

HEAT can be used to evaluate the reduced mortality from present and future levels of cycling, at the city, regional or national level.

HEAT is designed for assessments on a population level (i.e. among groups of people, not individuals), for habitual behaviour (such as cycling for commuting, or regular leisure time activities, not for one-day events), and for adult populations (aged approximately 20-64 years). HEAT may not be suited for populations with very high average levels of cycling (i.e. above 1.5 hours/day).

To access the tool: www.heatwalkingcycling.org

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Further reading

http://tinyurl.com/HEAT-systematic-review
http://tinyurl.com/HEAT4cycling

Sources

i Andersen LB et al., All-Cause Mortality Associated With Physical Activity During Leisure Time, Work, Sports, and Cycling to Work, Arch Intern Med. 2000;160(11):1621-162, http://tinyurl.com/HEAT-underlying-studies

ii Independent of other types of physical activity: to not assume that any increase in cycling automatically leads to a similar increase in total physical activity, the underlying study of the tool controlled and adjusted for leisure-time physical activity (on top of the usual socioeconomic variables: age, sex, smoking,...).

About ECF

With over 70 members across nearly 40 countries, the European Cyclists' Federation (ECF) unites cyclists' associations from across the globe, giving them a voice on the international level. Our aim is to get more people cycling more often by influencing policy in favour of cycling within political, economic, and social institutions.

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