

What is good housing worth?

Quantifying the Social Costs of Health Impacts associated with the Urban Environment

Eleanor Eaton and Alistair Hunt¹, Paul Pilkington and Janet Ige², Daniel Black³,
¹University of Bath; ²University of the West of England; ³db+a—Daniel Black & Associates

INTRODUCTION

The link between the quality of urban environment and health has become better understood recently. However, policy makers have not been able to value the possible health impacts of a proposed development as part of an overall investment decision.

We show how the social costs of these health outcomes can be defined in monetary terms.

Evidence is gathered from existing studies on health impacts associated with the urban environment. Using the impact pathway approach we forecast the likely health impact on a standard group of 1000 people, then apply reference economic cost of illness values. We are then able to calculate the health costs associated with individual characteristics of the built/urban environment.

RESULTS

Over 60 separate health outcomes were identified and given reference values. Values were established for 25 characteristics of the urban environment, with the highest values relating to green space, followed by noise, air quality and overheating.

These were then grouped into 5 areas:

- Building design
- Community infrastructure
- Natural environment
- Socio-economics
- Transport

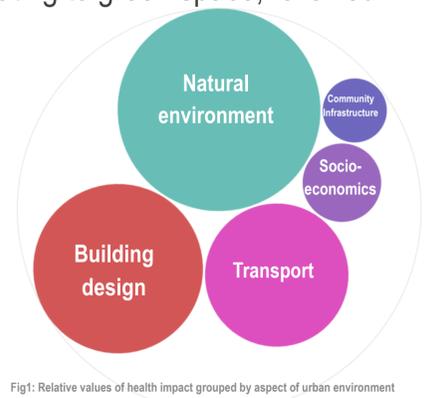


Fig1: Relative values of health impact grouped by aspect of urban environment

The highest components of costs were associated with the premature mortality resulting from lack of green space and poor air quality.

It is not just the immediate environment which counts...

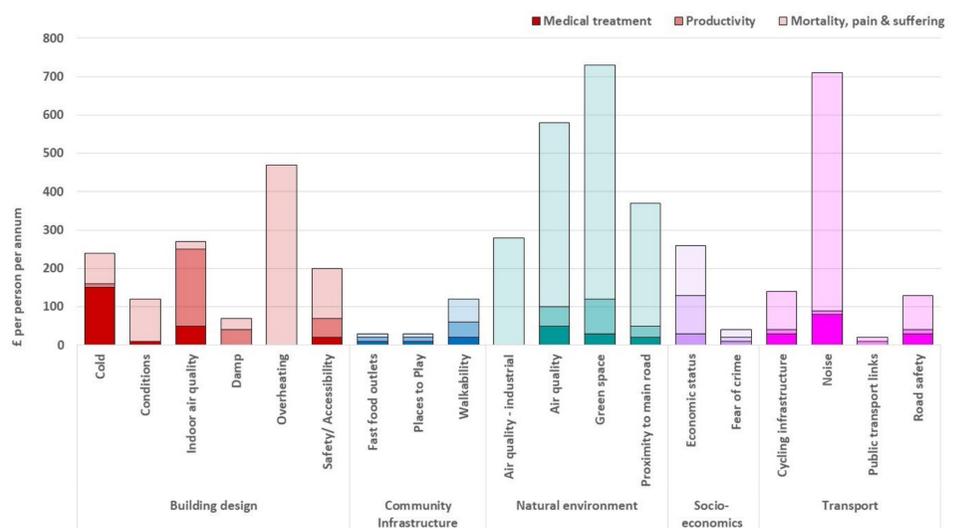
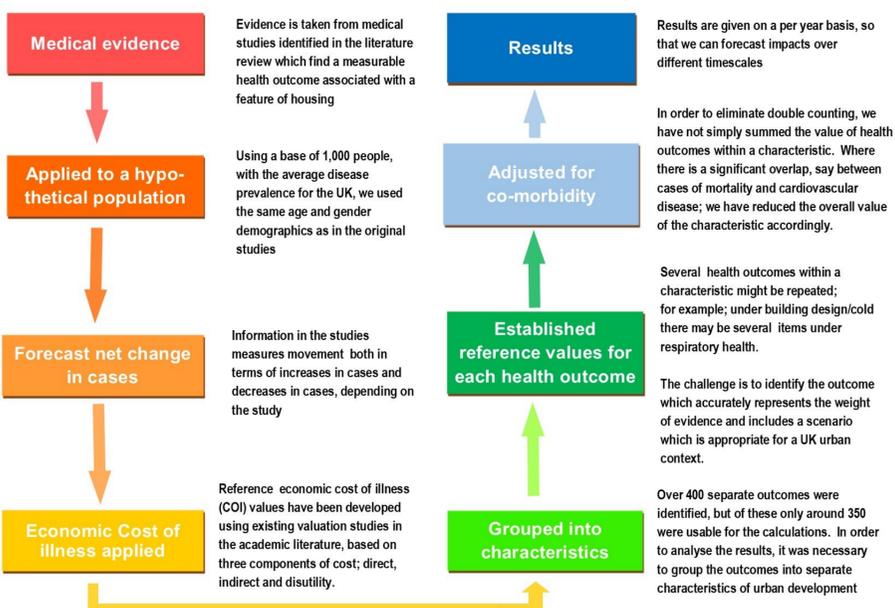


Table 1. The average value of health impact, per person per year, grouped by characteristic of the urban environment.

Costs are shown in three groups; direct (medical treatment), indirect (productivity) and disutility (mortality, pain and suffering). Values are calculated on the basis of 1,000 people exposed to each characteristic.

METHODS



DISCUSSION

We have created a tool which can be used to evaluate the impact of new housing developments, and furthers understanding about where the burden of cost from ill health falls.

Using an equivalent metric as used in cost-benefit analyses, this method may be used to incorporate health into decision making and enable local authorities and health providers to understand the impact of proposals on their communities.

Our method incorporates uncertainties resulting from the complexity of the task; the resulting range of values can be very high. However, this methodology can be used to identify the scale and relative importance of separate design characteristics.