

GREEN CITIES AND HEALTH: A QUESTION OF SCALE?

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Background and Aims: Cities are expanding and accommodating an increasing proportion of the world's population. It is important to identify features of urban form that promote the health of city dwellers. Access to green space has been associated with health benefits at both individual and neighbourhood levels, but no studies have tested this association at the scale of entire cities. We investigated whether a relationship between green space coverage and selected mortality rates exists at the city level in the USA.

Methods: An ecological cross-sectional study. A detailed land use dataset was used to quantify green space for the largest US cities ($n = 49$, combined population 142 million). Linear regression models were used to examine the association between city-level 'greenness' and city-level standardised rates of mortality from heart disease, diabetes, lung cancer, motor vehicle fatalities, and all causes, after adjustment for confounders.

Results: There was no association between greenness and mortality from heart disease, diabetes, lung cancer, or automobile accidents. Mortality from all causes was significantly higher in greener cities.

Conclusions: While considerable evidence suggests that access to green space yields health benefits, if we green our cities without attention to the form the green spaces take, and the form of contact with it, there may be no benefit to population health. In the USA, greener cities tend also to be more sprawling cities, with higher car dependency. Any benefits that the green space might offer seem easily eclipsed by these other hazardous exposures and the lifestyles they engender.