



To: Place Directorate

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Subject: Essential Evidence on a page: No 154 Multiple health benefits of urban tree canopy

Top line: More tree cover within 250 metres of home has been found to be associated with better self-reported general health.

Rapid global urbanisation brings economic, educational, and social opportunities. However, an increasing number of urban dwellers are not within easy access and contact with nature that is fundamental to human health and well-being. Investing in green infrastructure and natural environments within urbanised settings is becoming increasingly important. Humans evolved and have lived in mostly natural settings until very recently. Although many residents in urban areas typically benefit from superior access to health-care, education, and other services, these benefits are offset by the sedentary aspects of modern living and the presence of urban threats to physical and psychological health.

Decades of research suggest that exposure to nature and green spaces can help to reduce stress, promote restoration, and generally improve mental health.¹ ²Considering both rapidly increasing costs and diminished quality of life associated with illness, there is an expanding interest in innovative disease prevention and health promotion practices. Community health strategies are becoming more common to construct settings that can improve the health of a population across a geographic area, such as a neighbourhood or county. In an exploratory study situated in the Sacramento California region, more neighbourhood tree cover was found to be significantly associated for adults of age 18–64 with more vigorous physical activity, less obesity, better general health, less asthma, and better social cohesion.³ A more recent study by the same researchers drawing on existing datasets for the Sacramento, California, region sought to fill a gap in the existing research by focusing specifically on exposure to tree cover independent from other types of green space or vegetation, and by assessing tree cover associations with a comprehensive range of health measures within a local human population.⁴

The results of this study suggest that more neighbourhood tree cover in urbanised areas, independent from green space access, is related to better overall health, primarily through lower over-weight/obesity and better social cohesion, and to a lesser extent through less type 2 diabetes, high blood pressure, and asthma. Confounding factors including socioeconomic status were controlled for. The key contribution of this research is specific focus on tree cover as differentiated from other types of “greenness” by using a highly accurate measure of neighbourhood tree cover. Trees may be a health intervention that offers additional co-benefits, with positive economic implications. Of particular interest in recent literature is the equitable distribution of natural amenities across a city. These findings add to the existing evidence base, suggesting an important role for trees and nature in improving human health at the community scale in urban areas.

¹ See Bowler, D, Buyung-Ali, L., Knight, T, Pullin, A, 2010. A systematic review of evidence for the added benefits to health of exposure to natural environments. *BMC Public Health* 10, 456.

² Eg <https://travelwest.info/project/ee-78-neighbourhoods-mental-well>

³ Ulmer, J., Blain, C., Wolf, K., Backman, D., O’Neil-Dunne, J., Frank, L. 2014. *Green Prescription: Technical Documentation*.

⁴ Ulmer, J. et al 2016 Multiple health benefits of urban tree canopy: The mounting evidence for a green prescription, *Health & Place*, 42: 54-62.