

## **Greenspace Toolkit**

### **Annex 2: Health and well being context**

#### **Literature review of the benefits of greenspace to health and wellbeing.**

##### **Reference to Mental Health**

Grahn, P. and Stigsdotter, U.A. 2003. Landscape planning and stress. *Urban Forestry and Urban Greening 2 (1): 1-18*

- A study that found that people who have access to a green open space within 50 metres suffer stress less often than do people who have to walk more than 50 metres to such a space.

Van den Berg AE, Hartig T, Staats H. Preference for nature in urbanized societies: stress, restoration, and the pursuit of sustainability. *J Soc Issues 2007;63: 79–96.*

- Exposure to Nature has been also found to have a positive affect on mood, concentration, self-discipline and physiological stress.

##### **Reference to Physical Health**

Gildlof-Gunnarsson, A. and Ohrstrom E. 2007. *Noise and well-being in urban residential environments: The potential role perceived availability to nearby green areas.* *Landscape and Urban Planning, 83 115-126*

- Several studies have shown that nature within a 5 minute walk, equating to 400m distance encourages the use of outdoor spaces and the occurrence of health promoting activities.

Mass, J, van Dillen, S, Verheij, R and Groenewegan P. 2009. *Social contacts as a possible mechanism behind the relation between green space and health 15 586-595.*

- It was found that people with a green space in 1 km radius around their home have better self-perceived health, have experienced fewer health complaints in the last 14 days and have a lower self-rated propensity for psychiatric morbidity.

Mass, J, Verheij R, Vries, S, Spreeuwenberg, Schellevis P, Groenewegan P 2009. *Morbidity is related to a green living environment. EMGO Institute VU University Medical Centre, Amsterdam*

- 15 of the 24 investigated disease clusters were lower in living environments with more green space in a 1km radius around people home.

Ellaway, A Macintyre, S, Bonnefoy, X, 2005. *Graffiti, greenery and obesity in adults: Secondary analyses of European cross sectional survey. BMJ 331, 611-612.*

- Residents in high 'greenery' environments were 3.3 times as likely to take frequent physical exercise as those in the lowest greenery category.

Barton,S 2008. Adapted from the lecture "The Healing Garden: Social Research"  
PLSC100: Plants and Human Culture. November 18, 2008

- Vegetated areas provide relief from the "heat island effect" caused by the heat-trapping quality of asphalt, concrete, and building materials. Air under a tree's canopy can be as much as 5 – 10° F cooler compared to full sun, which would in turn have health benefits in extreme summer heat

### **Reference to the benefits to Children**

Taylor AF, Kuo FE, Sullivan WC Views of nature and self-discipline: evidence from inner city children J EVP (2001) 21 Supp

- Children's self discipline can be improved by 20% by simply having views of trees and vegetation outside their homes. This mainly affects girls and is related to better concentration even when adjusted for all other factors

Matensson, F, Boldermann, C, Soderstrom, Blenow, M, Englund., and Grahn, P 2009. *Outdoor environmental assessment of attention promoting settings for preschool children.* Health & Place **15** 1149-1157

- Children in pre-school with green spacious and well integrated outdoors space have a higher attention span, in addition children who walk in green space are able to concentrate more on subsequent work than those who take a similar walk but in a built up area.

Bell, J.F, Wilson J,S and Gilbert, C, 2008. Neighbourhood Greenness and 2 year Changes in Body Mass index of Children and Youth

- Greenness is inversely associated with the BMI (Body Mass Index) z-scores of children and youth at 2 years.

Herrington S, Studtmann K, (1998). "Landscape Interventions New Directions for the Design of Children's Outdoor Play Environments: Landscape and Urban Planning **42**(2-4): 191-205

- A natural play environment at school helps reduce bullying, increases creative play, improves concentration and a feeling of self worth in children.