

Improving Wellbeing through Urban Nature: integrating green/blue infrastructure and health service valuation and delivery



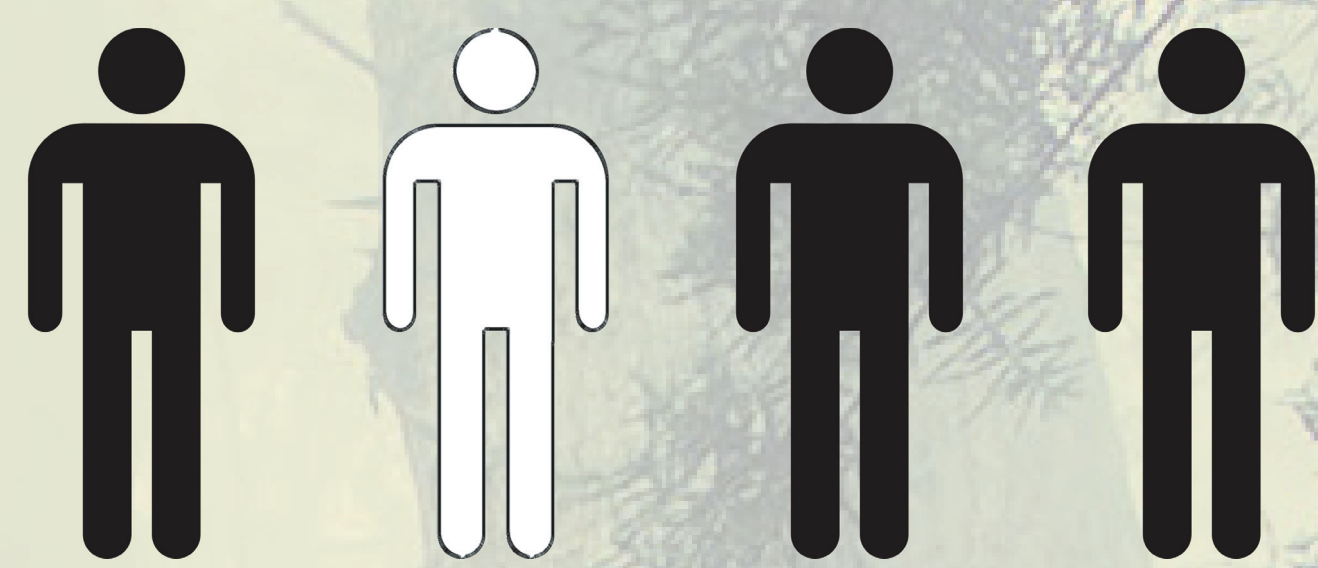
About IWUN

IWUN is a health and wellbeing project funded by the NERC-led Valuing Nature Programme. It is a 3-year project focussing on improving mental health and wellbeing in Sheffield. IWUN's interdisciplinary approach combines landscape architecture, ecology, psychology, health economics, social science and arts & humanities. The University of Sheffield teamed up with the Universities of Derby and Heriot Watt, the Wildlife Trusts, the Centre for Sustainable Healthcare and Recovery Enterprises.

Why IWUN?

1 in 4

people in the UK will experience a mental health problem in any given year¹



61%

of adults in England are overweight or obese² (strong risk factors for cardiovascular diseases)



8 years

is the average difference in life expectancy between the least and most deprived citizens of Sheffield³

Biodiversity

and environmental resilience are key concerns, and there is strong evidence to show that a healthy natural environment (NE) can contribute positively to the health and wellbeing (H&W) of the population



"IWUN has taken an applied approach to understanding the value of natural environments for health and wellbeing in the context of Sheffield."

Aims of the IWUN Project

Evaluate

ways in which quality and quantity of urban greenspace impacts on the H&W of Sheffield residents



Explore

the cultures and values that influence how people of different ages and backgrounds interact with the NE

Find

out more about which aspects of NE are beneficial for H&W

Evaluate

whether a smartphone app connecting people with NE can improve H&W



#SHMAPPED

Develop

a method to measure the cost-effectiveness of NE to help determine their role in future health and social care systems

Work Packages

Findings from the four IWUN work packages (WPs):

WP1

- People living in areas with small domestic gardens have the highest levels of poor health, even accounting for deprivation and other confounders.
- Income-related inequalities in health are greater in areas with smaller gardens.
- Greenspaces with lower quality, in terms of cleanliness, were associated with higher prevalence of self-reported poor health (after adjustments for potential confounders).
- We also explored the potential for social media as proxy measures for greenspace quality but found there was a poor correlation between social media data and field survey greenspace quality.

- Relationships between health and Landscape metrics (used to quantify composition and configuration of landscapes) demonstrated that reduced rates of poor health are promoted by:

Diversity of tree habitats; Proportionally less grass cover; Presence of water cover; Some large; greenspace (not all small); and Good interspersed green and grey covers.

WP2

- Of our 55 interview participants, **those living in deprived areas of Sheffield used nature for wellbeing less** than those in more affluent areas of Sheffield.
- People with strong memories of **being outdoors as children** cite beneficial urban nature experiences more than those with few or no childhood outdoor memories.
- Previously considered 'low' users of nature according to other studies, **BAME people in our study** were not low users of nature.
- Nature experiences have value especially for first generation migrants who cited how urban nature positively connects them with **memories of home countries**.
- Nature is positively found to be **non-judgemental and accepting** for people experiencing mental health changes: 'You don't have to impress nature'.

WP3

- This smartphone-based randomised control trial prompted adults, including those with a common mental health problem, to notice 'good' things about urban nature.
- There were statistically significant improvements in wellbeing at 1-month follow-up.
- Importantly, in the noticing urban nature condition (in contrast with a built space control) improvements in quality of life reached statistical and clinical significance in adults with a mental health difficulty.
- The improvement in wellbeing was partly explained by significant increases in nature connectedness and positive affect. The study provides the first controlled experimental evidence that noticing the good things about urban nature has strong clinical potential as a wellbeing intervention and social prescription.

WP4.1

- The process of selecting 35 interventions reinforced other IWUN WP findings; they stress the wide range of affordances that natural urban spaces offer, and the importance of designing green spaces to provide the widest possible range of opportunities for nature connection.
- The selection also emphasises the role of urban nature in providing a context for improved wellbeing rather than being an instrumental factor in treating specific health conditions.

WP4.2

- We assessed the construction and operation of a new cafe and toilets in a park to increase visitors and visits:
- This is potentially a cost-effective way of increasing the benefits arising from the park at both project and wider levels.
- The estimation of the impact of the cafe/toilets on visitors and visits is challenging due to a lack of relevant data.
- Incorporating urban ecosystem services and dis-services in the CBA reveals that their effect is insignificant in this appraisal.

Place making (urban planning and design)

Place keeping

Place experience