Urban Greening for Health and Well-being

Challenge

- Cities can negatively affect health due to high levels of noise and air pollution, traffic, as well as socioeconomic disparities and issues like poverty and crime. These factors can all contribute to an increased prevalence of chronic noncommunicable diseases and poor mental health.
- Living in a city is a risk factor for poorer mental health and it may be associated with a higher incidence of psychosis and depression. There are more than 0.7 billion 14-24-year-olds living in urban settings globally where 14% of 10-19 year-olds experience a mental health condition[1]. While in the UK, urban residents are 64% to report mental health concerns compared with their rural counterparts[2]. Public awareness on the importance of urban greenery is on the rise as 86% of children and young people surveyed stated that they would like to do more to look after the environment[3].
- The global prevalence of obesity has almost tripled over the last 40 years with urban areas seeing a particular increase[4]. In the UK, children in urban areas exhibited slightly higher obesity rates than children in rural areas[5].
- Urban greening has been associated with improved health and well-being of city dwellers owing to spaces provided for exercise, contemplation and social cohesion as well as the positive impacts of being close to nature (see Figure 5).

Figure 5: *Benefits of urban greening on health and well-being in cities.*

How urban greening improves health and well-being

Mental health benefits[6]

A connection with nature helps lower stress hormone levels, reduces the tendency to anxiety and depression and improves mood and emotional regulation through promoting calmness as well as cognitive and physiological restoration.

Green and blue spaces, mediated by physical activity and restorative qualities, provide space for reflection and facilitate mindfulness practices.

Gardens, parks, and urban farms encourage social interaction and community engagement where stronger social ties result in better mental health and resilience.

- **Healthier surrounding environment**

  Greenery ensures improved air quality leading to fewer respiratory and cardiovascular problems.

  Green areas mitigate urban heat via shade and evapotranspiration, reducing the risk of heat stress and heat stroke that cause mortality to vulnerable groups.

  Vegetation acts as a natural sound barrier, lowering urban noise levels and hence supports better sleep, reduces stress, and improves cognitive function.

- **Physical activity**[7]

  Parks and tree-lined streets provide safe and inviting spaces for walking, cycling, and recreation, which in turn reduce risks of obesity, heart disease, and diabetes.

  Integrating active transport spaces such as pedestrian paths and bike lanes within green spaces can potentially support healthier lifestyles.

Recommended Actions

Ensure that urban greenery, including greenspaces, consider aspects relevant to human health.

- **Prioritise NbS** in GI and BI solutions as it provides co-benefits that improve well-being, for example increasing urban tree cover provides shading for buildings, counteract urban heat island effect, help alleviate air pollution and provide opportunities for biodiversity and nature connection.
- **Quality** of urban parks needs to meet the Green Flag Award Criteria[8], and best practice in accessibility for all: By All Reasonable Means: Least restrictive access to the outdoors[9].

- **Accessibility** to green and blue spaces in neighbourhoods that have low amounts of accessible greenspace and high deprivation needs to be ensured, as per the Green Infrastructure Framework's Mapping Database[10] as well as the Fields in Trust standards[11]. Opportunities to green already accessible spaces is as important as making green spaces more accessible.
- **Capacity** where local authorities need to maintain at least 3 hectares of publicly accessible greenspace per 1,000 population and ensure no net loss or reduction in capacity of accessible greenspace per 1,000 population across the authority's area, as per the Green Infrastructure Framework's Mapping Database[10].
- **Proximity** ensures that everyone has access to good quality green and blue spaces within a 15 minutes' walk from home for health and wellbeing and contact with nature, in accordance with the Green Infrastructure Framework's Accessible Green Space Standards[12] (& Fields in Trust[11]) which clarify the quantity, quality and distance from home of the greenspace required to meet local needs.
- **Connectivity** as linking vegetation & paths from public spaces into residential areas creates habitat and access corridors and can encourage physical activity, nature connection and reduces risk of depressive symptoms.

Account for local conditions for better impact.

- **Spatial qualities and landscape composition** such as availability of shaded areas, open vistas & sightlines, spaces for active use, spaces for community gathering, and topographical features, need to be prioritised as they can influence attentional restoration, stress recovery and social connection.
- **Variations in climatic conditions** need to be considered as they affect frequency of long term maintenance and the management of the surrounding urban infrastructure.

Employ urban greening to meet community needs.

- **Target communities** who are most in need of urban greenery. High exposure to urban heat, air pollution, mental and physical health issues often goes together with low levels of urban greening. Guide decisions on investment in urban green spaces and parks as informed by the Index of Multiple Deprivation and local dialogue with communities.
- **Children** need to especially be accounted for through encouraging opportunities for unstructured play in urban parks. Unstructured play does not rely on standard equipment (swing sets/slides) but invites children to explore and create, examples include areas for den making, stepping stones, texture pathways, sensory gardens and water play.
- **Youth** at risk of anxiety and depression should be encouraged to seek adventure interventions and schools should consider how they can encourage and enable time in nature as part of the school day.
- **Equity** in access to GI and BI is important as children and young people from households with higher incomes are more likely to report spending time outside, often because they have access to a garden[3]. Hence granting public access to private urban greening spaces, should be considered. Furthermore, ensuring accessibility for people with disabilities and special needs is crucial to ensure benefit for all.
- **Safety** of green spaces must be ensured to make it comfortable for girls and women, and all groups who might otherwise not use green spaces due to fear of crime or anti-social behaviour.
- **Community engagement** ensures the co-design of urban greening with residents to address their physical, cultural and social needs, and encourages community-led initiatives that support physical activity, recreation and socialisation.

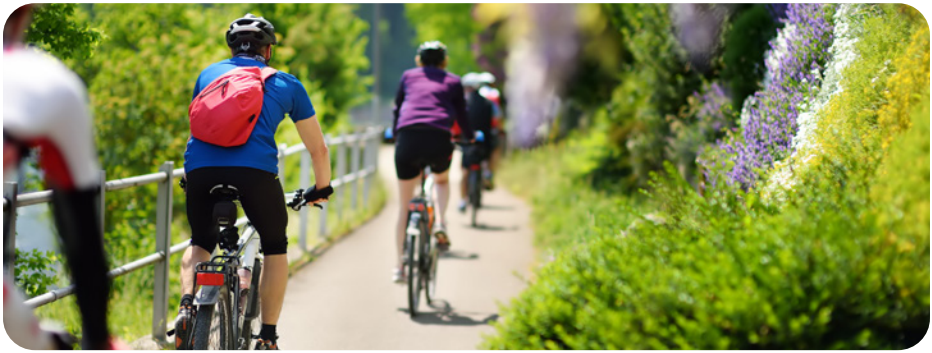
Align your urban greening agenda with national strategies and priorities.

- **Funding** of nature recovery and green infrastructure is possible through plausible investment mechanisms where evidence clearly shows that there is significant potential to scale up by developing sustainable urban greening investment models that bring together public, private and third sector funding. Furthermore, it is critical to align investment mechanisms with wider policies and strategies focusing on health and wellbeing and economic prosperity.
- **Advocate** for green spaces through seizing the opportunity to protect or construct urban greening of all sizes. Small urban parks can deliver many of the benefits to forest exposure, which lead to greater momentary mental wellbeing and positive affect on health compared to being on an urban street.
- **Revitalise** run-down natural assets to make up for the shut down of existing green and blue spaces due to densification.

Further Insight

Support local research to fill current knowledge gaps to allow for better decision-making.

- Quantitative research on urban greening and well-being is limited with issues such as data heterogeneity, inconsistencies in methodologies and an overrepresentation of woodlands hence, it is important to support further research efforts for sound results and recommendations. The Woodland Trust's BioWell study[13] notes that many biodiversity experiences such as bird song are not specific to woodland.
- Studies rarely focus on the differences across urban greening typologies, so recommendations of the best suited urban greening to improve health and wellbeing cannot currently be made. Existing research focuses on understanding the processes that take place around urban greening which have the most impact on health and wellbeing, ranging from design features to exposure time and access.
- Longer term and longitudinal studies are needed to claim that urban greening on its own improves the overall health and wellbeing of a person. Existing studies are either cross-sectional studies looking at associations between greenspace and health issues, or are short-term experimental studies relying on participants' perception of temporary emotional change after visiting urban greening, and some of their physical conditions like heart rate and blood pressure have improved.



References

[1]Bray, I. et al. (2022). Exploring the role of exposure to green and blue spaces in preventing anxiety and depression among young people aged 14–24 years living in urban settings: A systematic review and conceptual framework. *Environmental Research*, 214, 114081. [2]Understanding Society (2023). Mental health: how living in the city and country compare - UK Household Longitudinal Study. [3]The Children's People and Nature Survey for England (2024). Update report by GOV.UK. [4]Smith, N., et al. (2021). Urban blue spaces and human health: A systematic review and meta-analysis of quantitative studies. Cities, 119, 103413. [5]Titis, E., Di Salvatore, J., & Procter, R. (2023). Socio-economic correlates of childhood obesity in urban and rural England. *Public Health Nutrition*, 26, 1815–1827. [6]Janeczko, E., et al. (2023). The Psychological Effects and Benefits of Using Green Spaces in the City: A Field Experiment with Young Polish Adults. *Forests*, 14. [7]Samus, A. et al. (2022). How do urban green spaces increase well-being? The role of perceived wildness and nature connectedness. *Journal of Environmental Psychology*, 82, 101850. [8]Ellicott, K. (2016). Raising the Standard The Green Flag Award Guidance Manual. Wigan, England: Keep Britain Tidy. [9]The Sensory Trust (2020). By All Reasonable Means: Least restrictive access to the outdoors. Commissioned by Natural England in collaboration with Natural 50 of 51 Resources Wales. Cornwall: The Sensory Trust. [10]Natural England (2023). Green Infrastructure Mapping Database: Green Infrastructure Map. [11]Fields in Trust (2025). Standards: Fields in Trust. [12]Natural England (2024). Green Infrastructure Framework: Accessible Greenspace Standard User Guide. [13]Woodland Trust (2022). Bio-well research: Mapping woodland biodiversity for human health and wellbeing.