# The role of GBGI in levelling up in Bristol: a secondary analysis

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# Background

**Mental health**, particularly for urban populations, is a growing public health concern.

Understanding how people relate to and feel a sense of belonging in the **urban environment** is an important research agenda.

There is mounting evidence about the importance of **green** (e.g. parks, trees) and **blue** (e.g. rivers, lakes) infrastructure for the health and wellbeing of urban residents.

There is also emerging evidence about the benefits of certain 'grey' features (e.g. historic buildings, active travel routes).

#### Aim

to explore relationships between GBGI and a range of health and social outcomes in neighbourhoods across Bristol

## Model

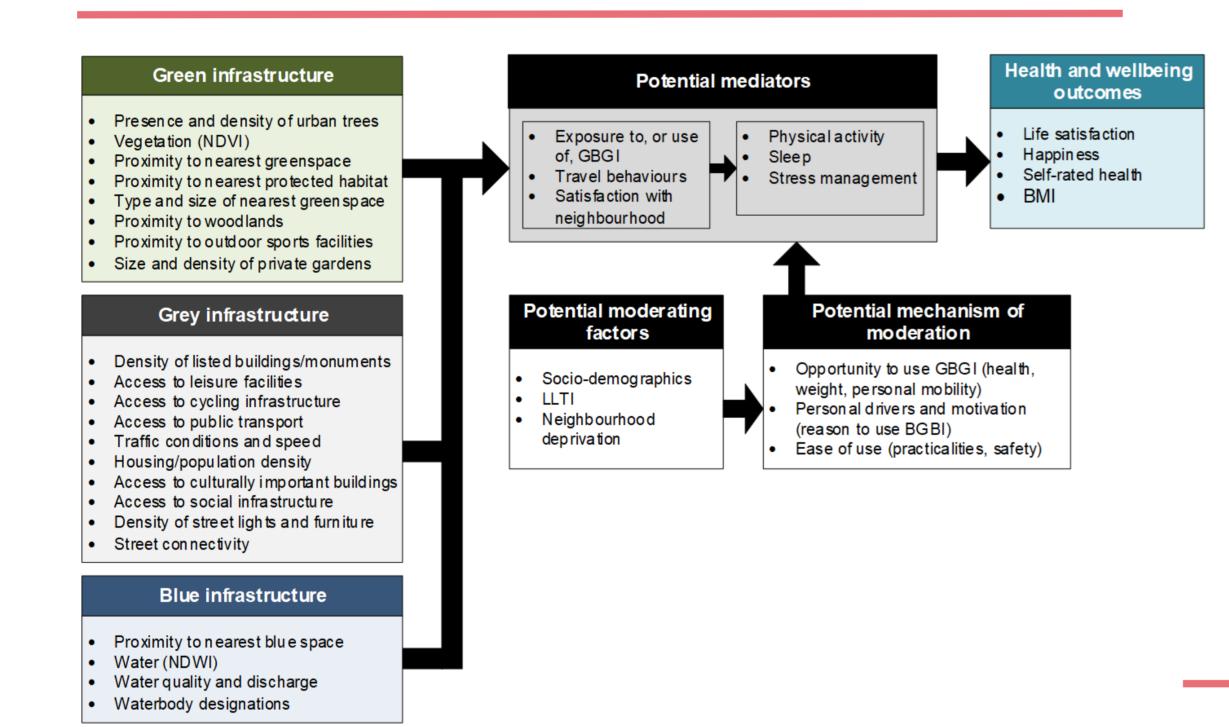


Figure 1. Conceptual model showing potential pathways between GBGI exposure and wellbeing.

# Research questions

- How can exposure to GBGI in urban populations be quantified using secondary data and Geographical Information Systems?
- Is GBGI exposure associated with self-reported measures of wellbeing and life satisfaction in urban populations?

# Methodology

#### **Data Sets**

- GBGI exposure data were compiled from a wide range of openly available sources e.g. Ordnance Survey, Bristol Open Data, Census, Natural England
- ❖ Self-reported outcomes and potential mediating variables were available from the Bristol Quality of Life Survey¹ (2011-2022)

#### **Analysis**

- Correlation was used to assess collinearity of green, blue and grey measures
- ❖ Regression was used to investigate direct and indirect relationships between GBGI and measures of wellbeing and life satisfaction

1. Bristol City Council (2023). Bristol Quality of Life Survey 2022/2023. <a href="https://www.bristol.gov.uk/files/documents/6332-quality-of-life-2022-23-final-report-with-appendix/file">https://www.bristol.gov.uk/files/documents/6332-quality-of-life-2022-23-final-report-with-appendix/file</a>

### Results

- There is limited collinearity of green, blue and grey measures
- ❖ No direct relationships were found between GBGI exposure and selfreported life satisfaction and wellbeing.
- Significant associations were found between GBGI satisfaction and frequency of use and self-reported life satisfaction and wellbeing.

### Conclusion

- \* We investigated the relationship between GBGI and self-reported life satisfaction and wellbeing over a long time period at high-resolution in Bristol.
- A Multiple GBGI factors were explored, including detailed mapping of GBGI exposure and reported satisfaction with, and frequency of use of, GBGI.
- \* Results suggest that enhancing GBGI exposure in itself is not likely to directly lead to improvements in life satisfaction and wellbeing.
- Improving the quality of and peoples experience of GBGI and their local environment is potentially important in enhancing life satisfaction and wellbeing.



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