Candidate Information

Position:	Research Fellow
School/Department:	Centre for Public Health
Reference:	23/111462
Closing Date:	Monday 8 January 2024
Salary:	£37,841 - £42,567 per annum
Anticipated Interview Date:	Friday 19 January 2024
Duration:	Available until 28 Feb 2026

JOB PURPOSE:

The GroundsWell Consortium, funded by the UK Prevention Research Partnership, aims to drive community innovation by applying systems science that maximises the contribution of Urban Green and Blue Space to the primary prevention of, and reduction of inequalities in, non-communicable diseases in urban settings. The Consortium has over 30 co-investigators across 7 institutions, as well as a range of non-academic stakeholders. The post-holder will liaise with the investigators and researchers based at Queen's University, Belfast, University of Liverpool and University of Edinburgh. The Research Fellow will work closely with the Directors, project partners and the Consortium Management group.

You will take responsibility for designing, analysing and disseminating a programme of co-produced research as part of GroundsWell. This will entail working with multiple large secondary datasets, cleaning data into analysis ready formats, creation of linked datasets, application of geospatial data science methods for analysis, exploiting natural experiments, publishing and disseminating outputs to relevant members in the consortium and the wider scientific community in a timely manner.

Datasets will be primarily quantitative and have a range of formats including GIS and other spatial datasets (e.g., locations of urban green and blue spaces, remote sensing), routinely collected Electronic Health Records, survey data, longitudinal ageing cohorts, and biobanks. Data science methods for exploiting these data might include regression based approaches, multi-level modelling, interrupted time series designs, spatial analysis techniques and causal inference methods.

MAJOR DUTIES:

1. Identify new and emerging geospatial data science techniques that will enhance project design and analytical rigour.
2. Further develop the geospatial data linked to the Northern Ireland Cohort of Longitudinal Data (NICOLA) facilitating analyses and international comparative analyses as part of the Gateway to Global Ageing Data.
3. Clean a range of datasets to create analysis ready versions, including linking/matching datasets involving UK Biobank and Northern Ireland Cohort of Longitudinal Data (NICOLA).
4. Plan, design and deliver high quality research evaluating how urban green and blue spaces influence health and can tackle health inequalities, including exploiting natural experiments such as the 5-year follow-up with the Connswater Community Greenway involving 3 waves of a repeat cross-sectional sample.
5. Prepare and analyze longitudinal data from the Honest Broker Service evaluating a natural experiment of the Connswater Community Greenway using administrative data such as prescription medication, hospitalisations, birth outcomes, infections.
6. Co-design research projects with GroundsWell researchers, external organisations and public involvement.
7. Lead on research publications and outputs, as well as collaborate and support projects/outputs with others within GroundsWell.
8. Disseminate diverse types of outputs to a range of groups including both scientific, policy and lay audiences.
9. Prepare and present regular updates on research progress to the GroundsWell team.
10. Attend meetings and conferences, both nationally and internationally, to promote research and support outreach activities.
11. Build and sustain relationships with other researchers in GroundsWell, as well as establish new networks outside of GroundsWell relevant to the project.
12. Potentially supervise PhD students, where required and desired.

ESSENTIAL CRITERIA:

1. A primary degree in a relevant discipline, e.g., Public Health, Epidemiology, Geography; or equivalent discipline in which geospatial data science quantitative skills are evident.
2. Have or be about to obtain a relevant PhD in a Public Health or Social Science or subject area allied with a substantive geospatial data science or quantitative data analysis component.
3. Significant research experience in geospatial data science or quantitative data analysis to include secondary data synthesis and relevant quantitative analysis skills as evidenced by publication in peer reviewed journals.
4. Experience of quantitative secondary datasets (e.g., geospatial data, administrative records, survey data.
5. Experience in handling, cleaning, linking and analysing geospatial data in ageing cohort studies.
6. Utilising geospatial data science methods to analyse large datasets.
7. Analysis of large linked or matched datasets.
8. Knowledge of data curation, storage, cleaning/handling and reporting best practice.
9. Knowledge of a range of geospatial data science, statistical, quantitative or spatial analysis techniques.
10. Understanding of how to handle sensitive or secure data; knowledge of data/code sharing practices.
11. Excellent organisational skills.
12. Excellent inter-personal skills.
13. Excellent oral and written communication skills.
14. Ability to write reports and meet deadlines.
15. Good presentation skills including ability to articulate complex information clearly.
16. Articulate, fluent.
17. Ability to work independently and on own initiative.
18. Strong commitment to a career in research.
19. Access to transport or the ability to meet the mobility requirements for the post.
20. A willingness to travel to meet the needs of the post.

DESIRABLE CRITERIA:

1. Experience working as part of a multidisciplinary team.
2. Experience of open source sharing of code and outputs.
3. Knowledge of methods for exploiting natural experiments or interrupted time series designs.
4. Subject knowledge on the importance of green and blue spaces and/or the drivers of health inequalities.
5. Knowledge or experience of longitudinal studies.