


Spatial Policy and Analysis Laboratory



 www.mui.manchester.ac.uk/spal

 mui@manchester.ac.uk

 @UoM_Spal @UoMUrban

Spatial differentiation & key determinants of health-related well-being in Tameside and Glossop

Professor Cecilia Wong & Dr. Helen Zheng
Spatial Policy & Analysis Lab
Manchester Urban Institute
The University of Manchester

North West
Social Science
Doctoral Training
Partnership



Economic
and Social
Research Council

Everyone
Matters

Motivation of this collaboration

- **Challenge**: average life expectancy is about **a decade** below the national average + **a decade's variation** in the best and least **deprived neighbourhoods** in Tameside LAD area
- **Research**: interrelation and cumulative impact of different health determinants of the **complex human-environment system** have caused the prevalence of **chronic illness** and manifested into variegated **spatial landscape of health inequalities**
- **Action**: lack of systematic effort & **policy silos** to tackle the effect-modifying interrelations of different health determinants and **health inequalities**

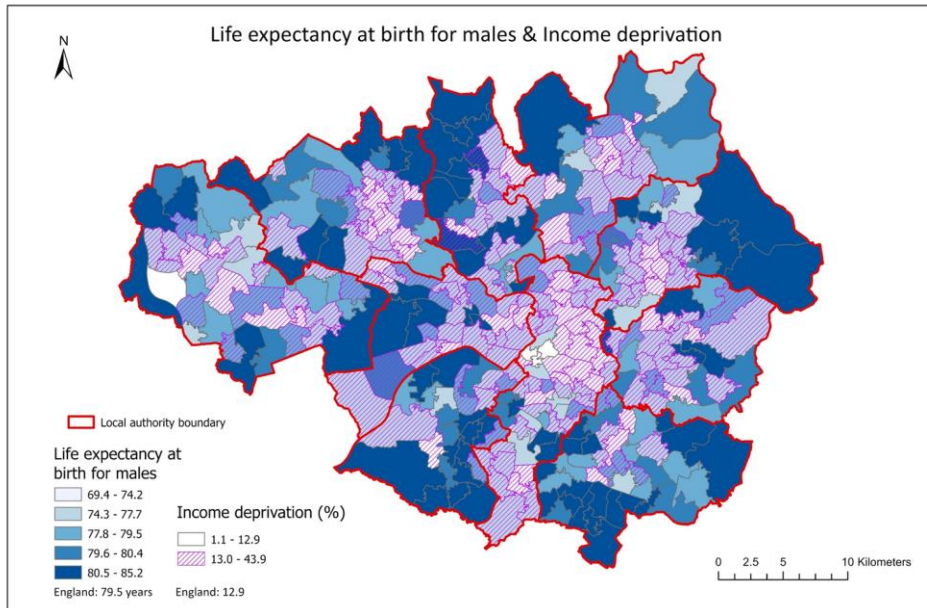
A 36-month PhD project

- adopt a *salutogenic* approach that focuses on the human-environment perspective
- operationalise *multi-variate measures* of key health-related well-being determinants
- *geographic patterns & temporal change* of different chronic diseases & health outcomes across different neighbourhoods
- apply *multi-level spatial modelling* framework: interrelations between ‘individual’, ‘society’, ‘natural environment’ and ‘built environment’ health-related determinants
- follows a *co-creation* approach & draw out the *evidence-base* to inform policy and practice development

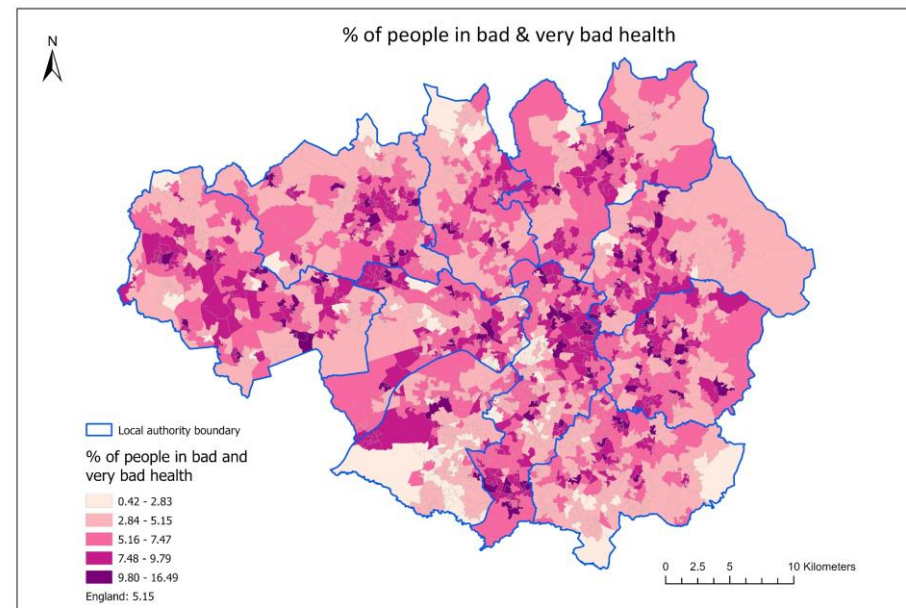
General health



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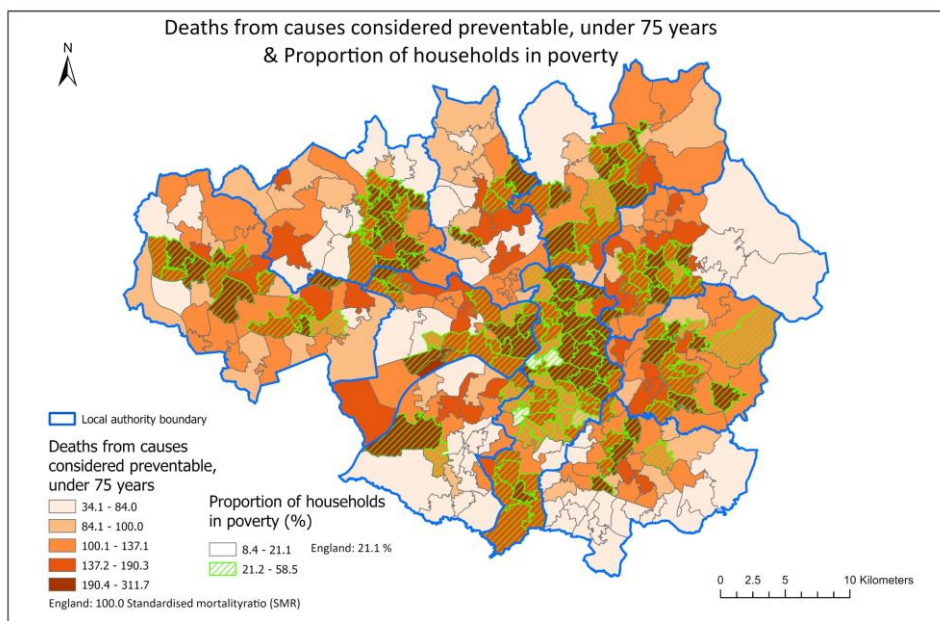


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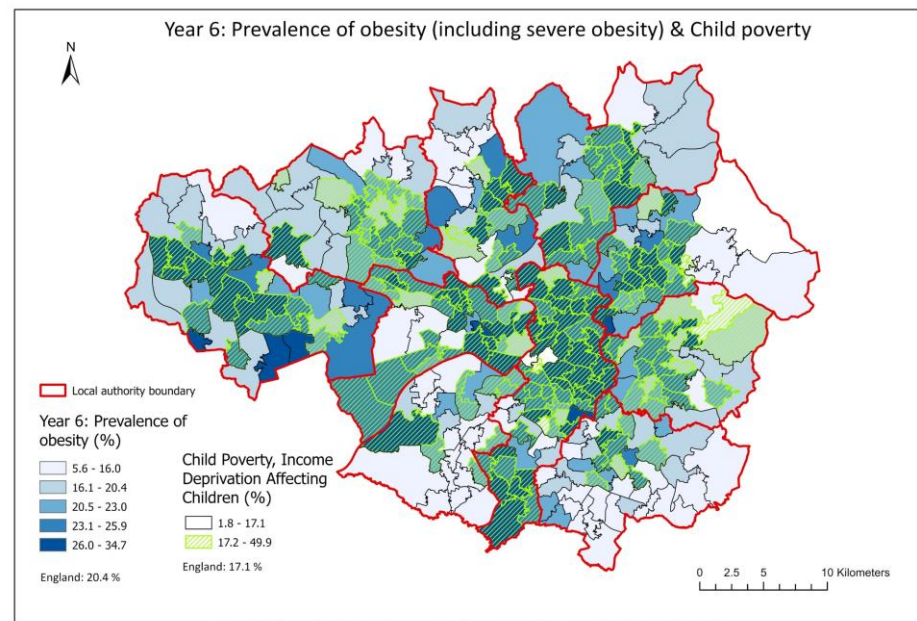


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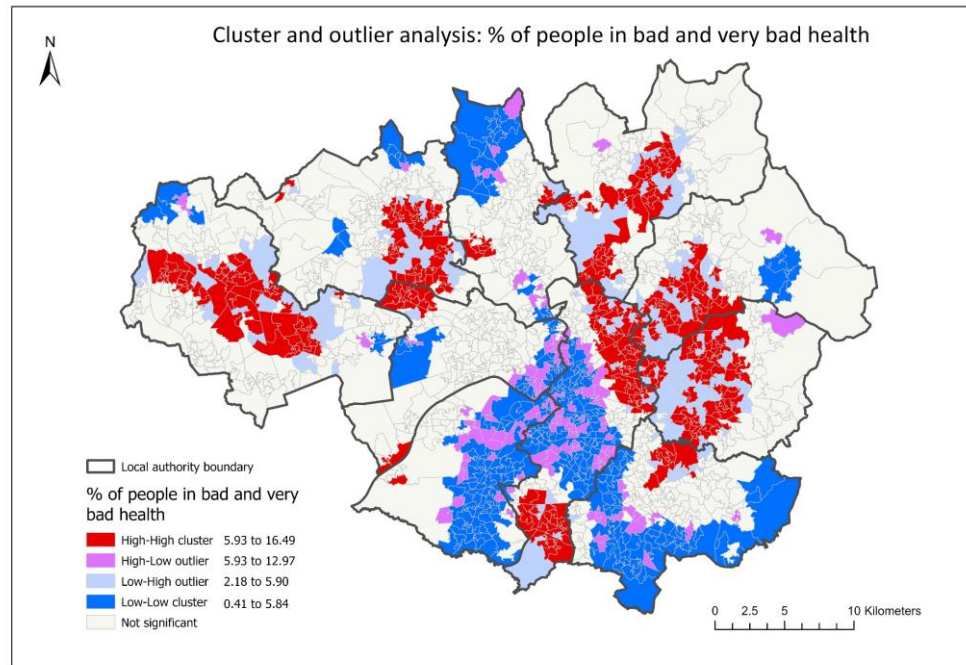


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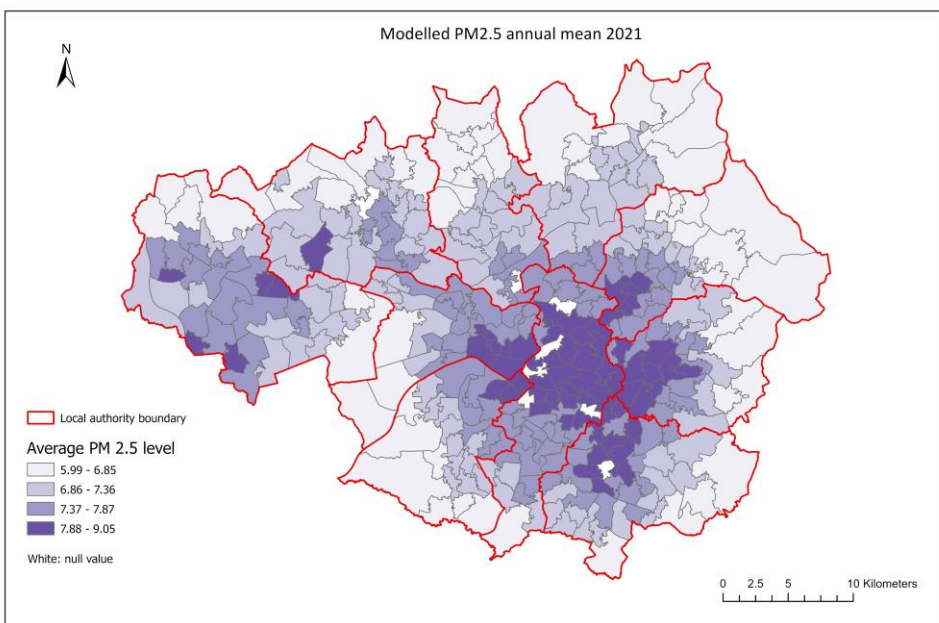
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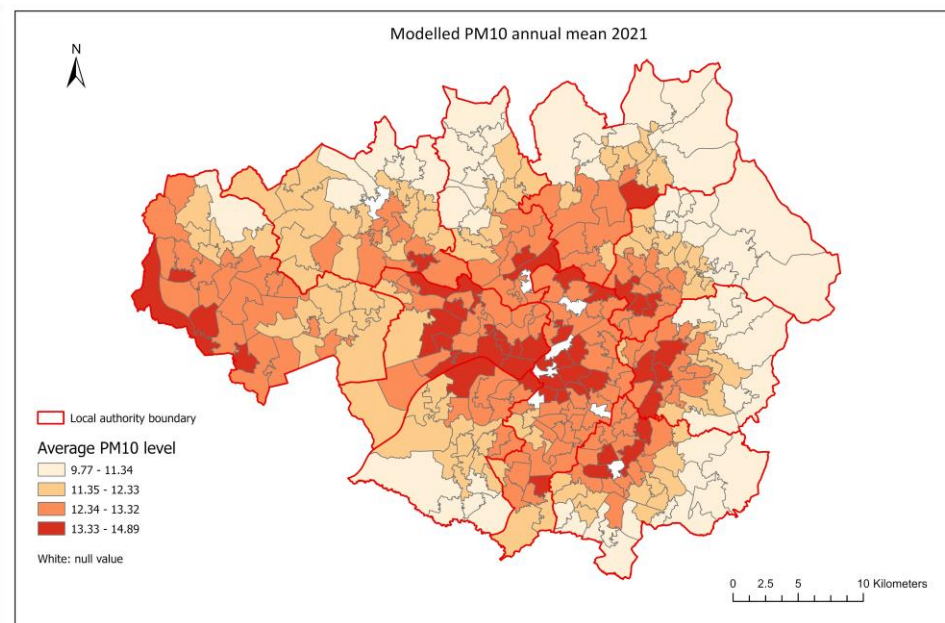


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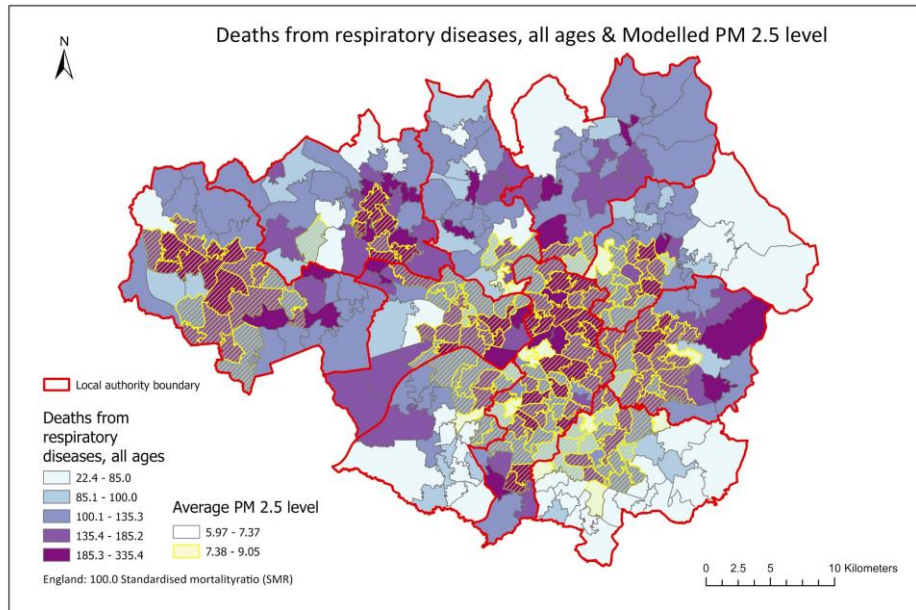


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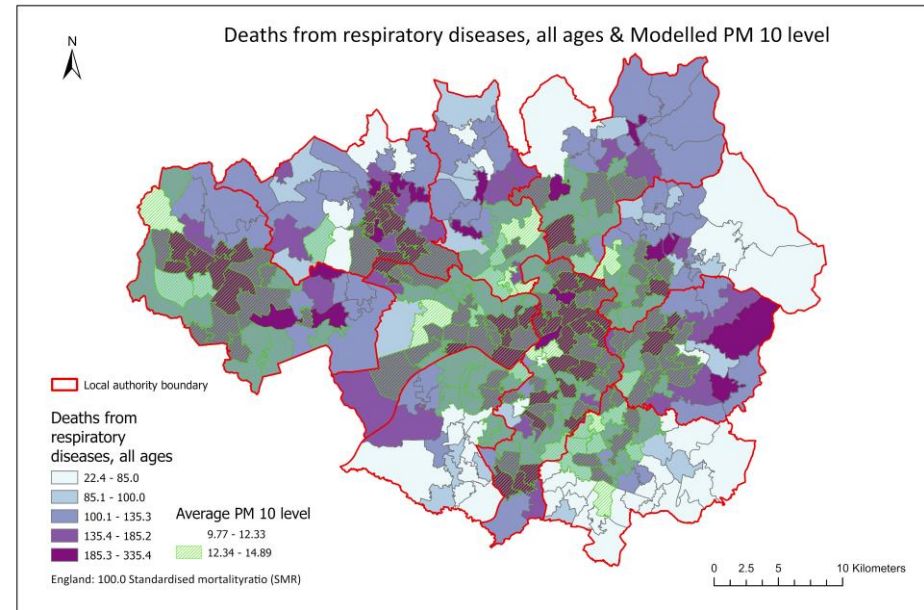


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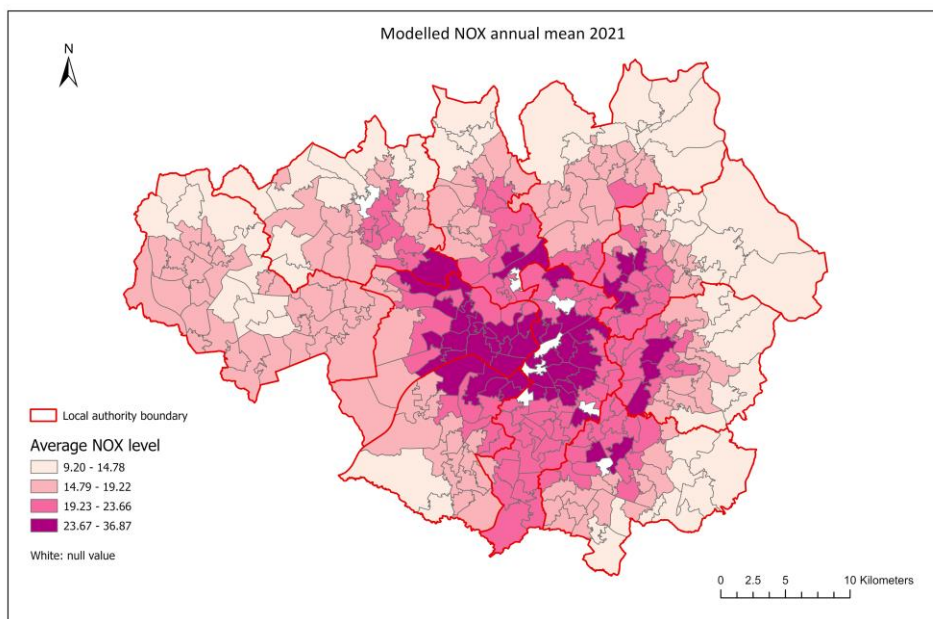


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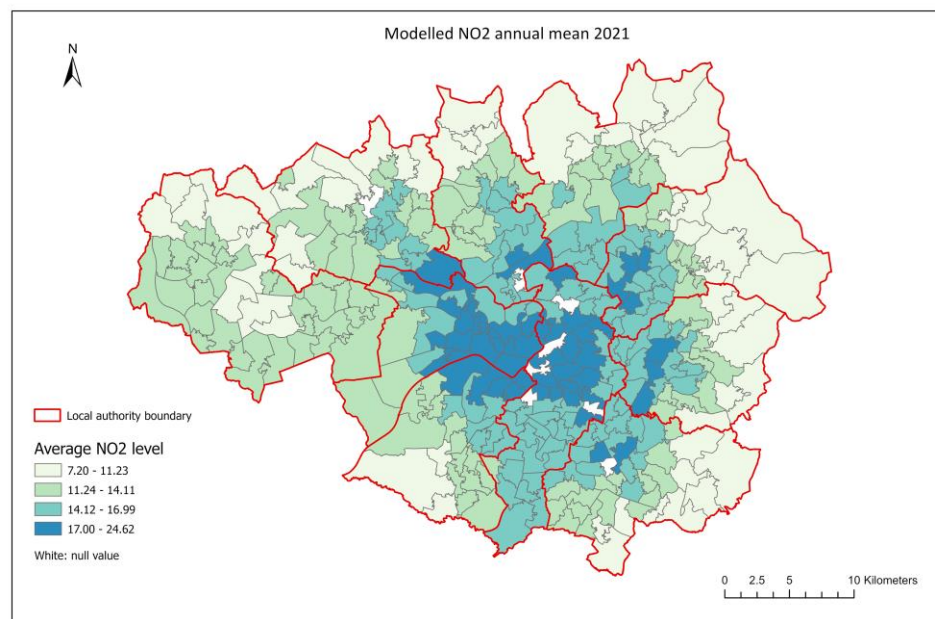


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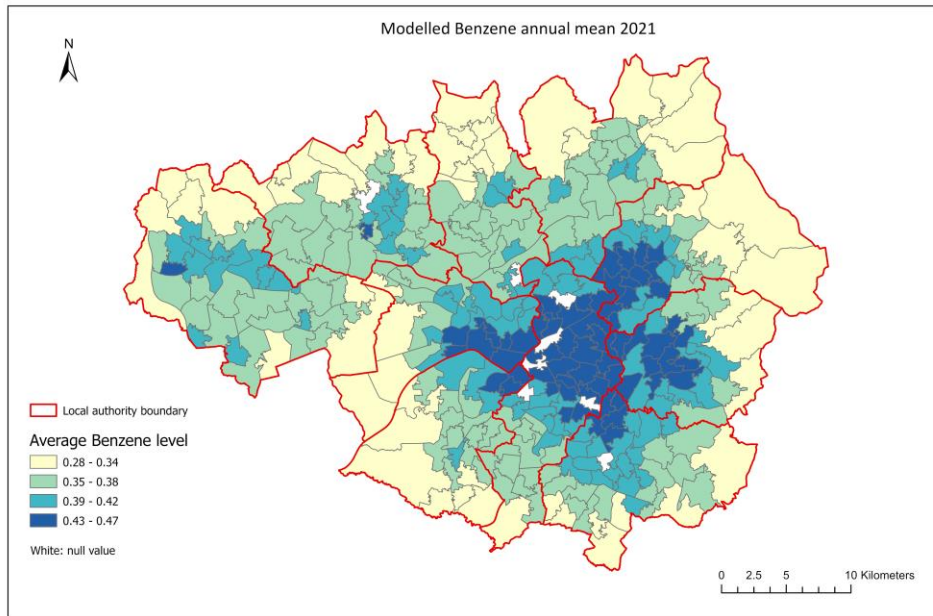


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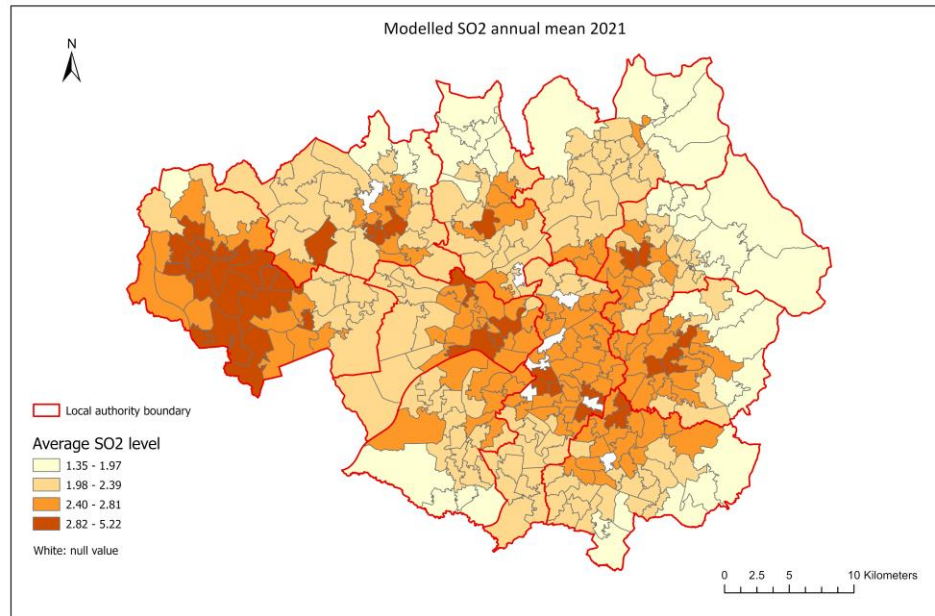


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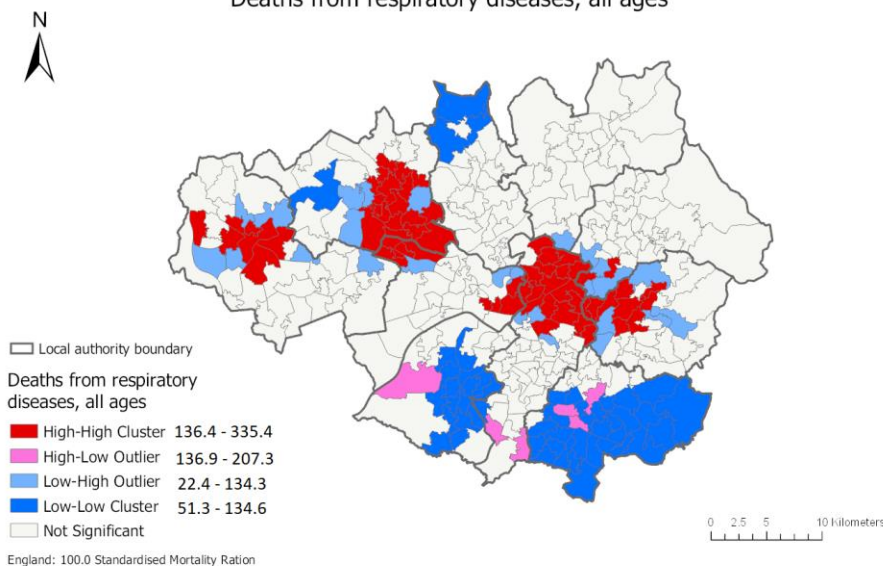
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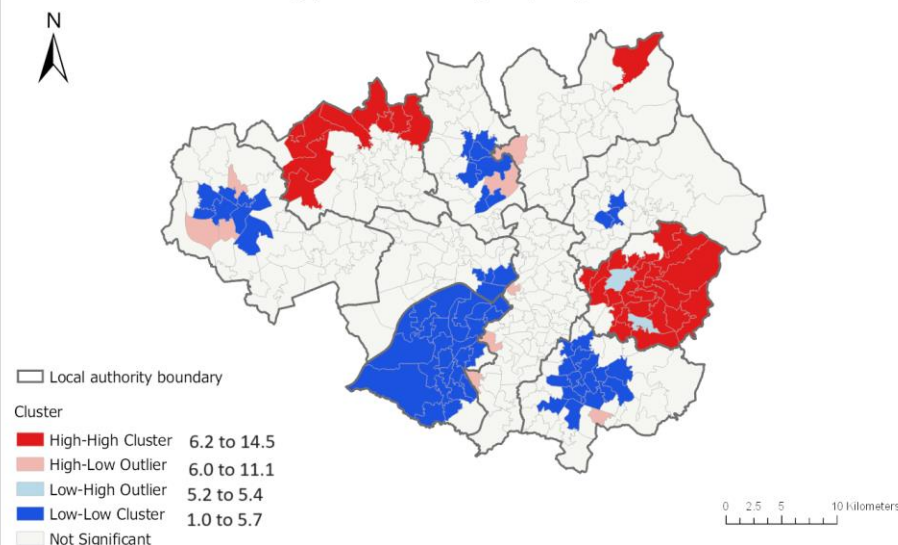
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Deaths from respiratory diseases, all ages



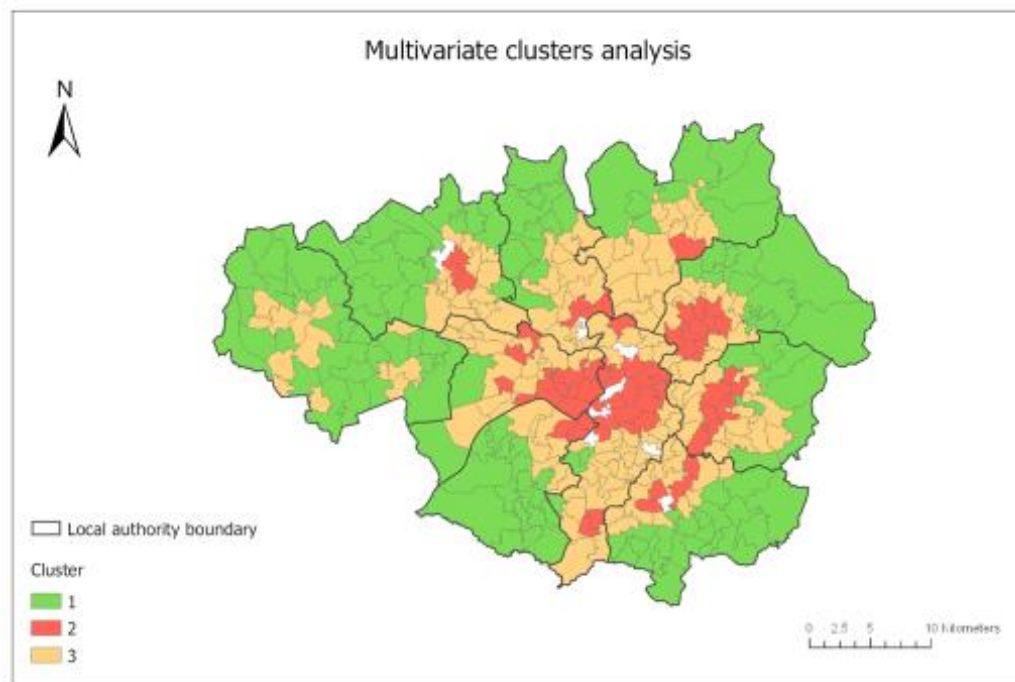
Smoking prevalence at age 15, Regular Smokers



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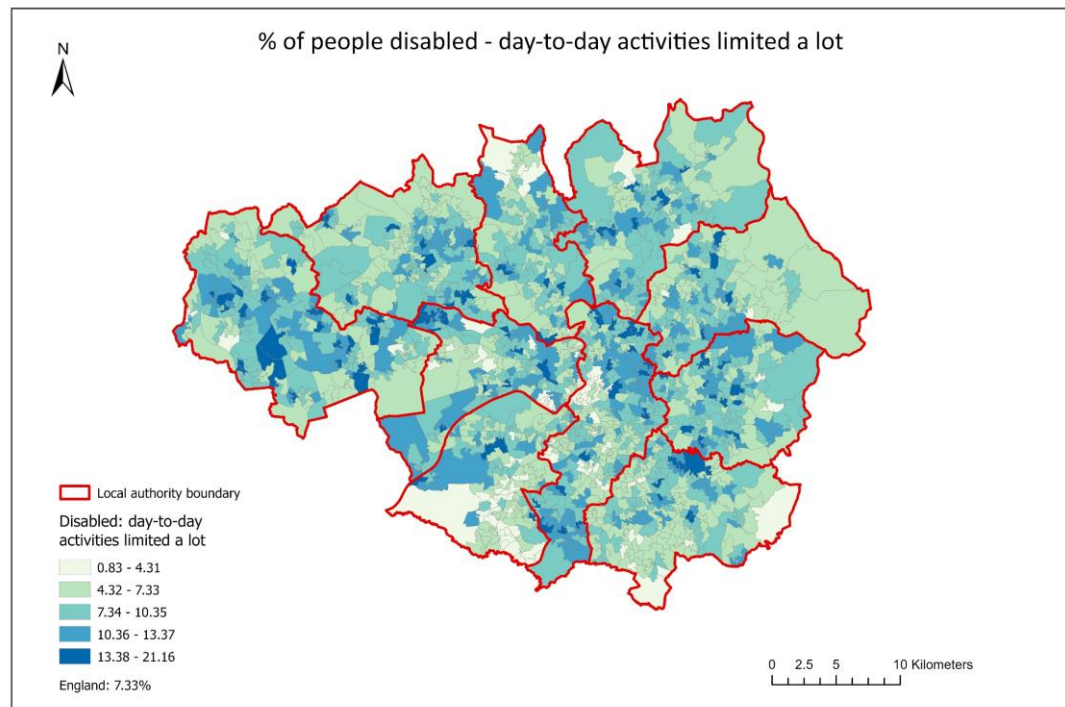


- V1: Deaths from respiratory disease**
- V2: Income deprivation**
- V3: Average Benzene level**
- V4: Average NO₂ level**
- V5: Average NO_x level**
- V6: Average PM 10 level**
- V7: Average PM 2.5 level**
- V8: Average SO₂ level**
- V9: Proportion of household in poverty**



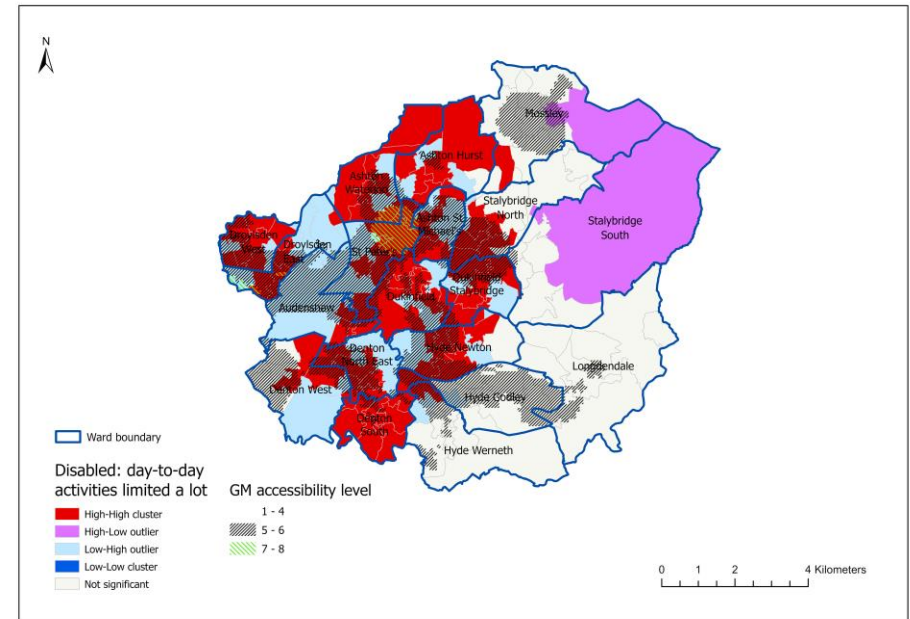
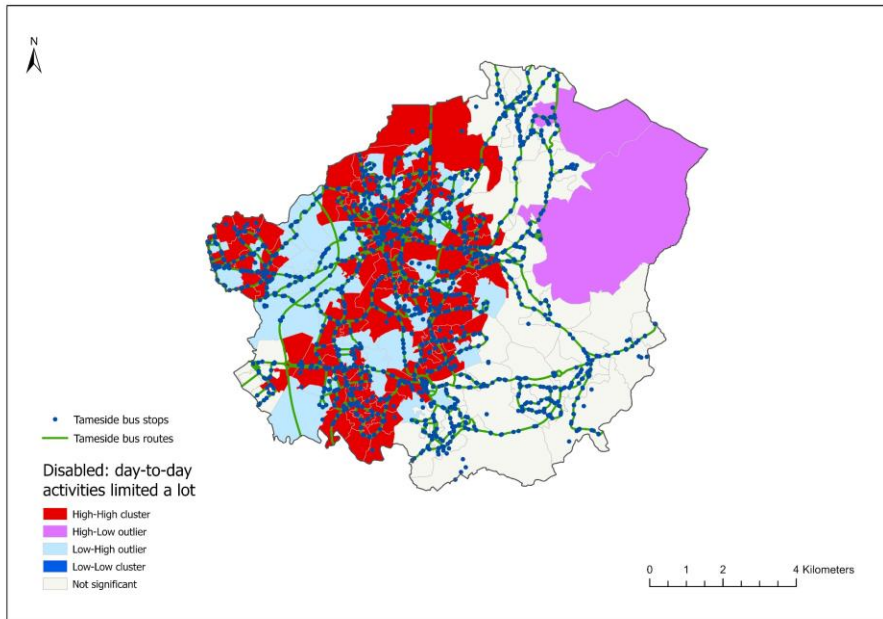
Disability

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Opportunities

- will involve major GIS data processing and linkage to integrate different large-scale datasets into a multi-scalar spatial dataset for mapping visualisation analysis and multi-level spatial modelling
- putting data analysis at the heart of decision-making
- improving health, wellbeing and social care; through
- co-creation and collaboration!



Thank you for listening

