

AGILE PhD School 2024

PhD project: *Understanding Social and Spatial Inequalities in Common Mental Health Disorders*

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Intro

- 2nd year PhD (integrated masters)
- DAS CDT
- Project partner: Mersey Care NHS Trust



UNIVERSITY OF
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Geographic
Data Science
Lab



Motivations for the project

1 in 6

people in England experience common mental health problems in any given week¹

approximately

61%

of adults with mental health conditions don't access treatment¹

Mental health service users in the Liverpool City region have

20 years lower

life expectancy than the UK average, as well as a

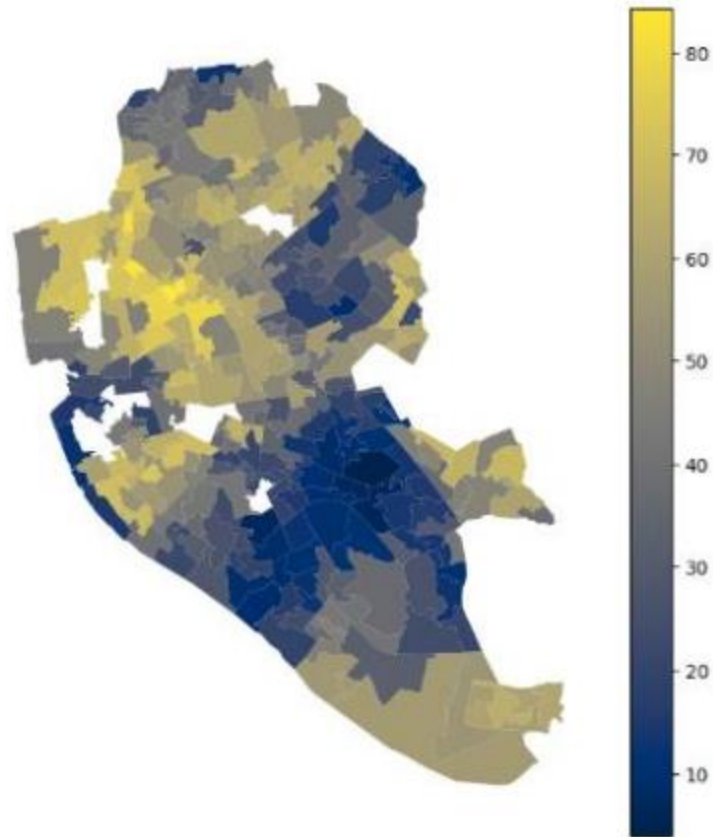
higher depression rate

than the England average

Work so far

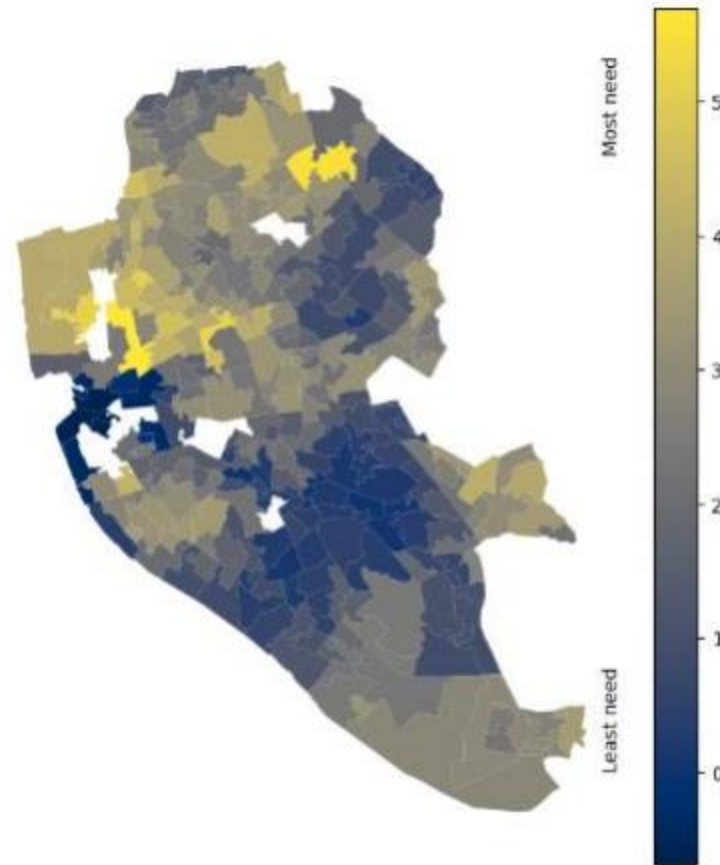
- Mapping
- Hospital admissions
- Network of survey responses

(i) Rate of deprivation



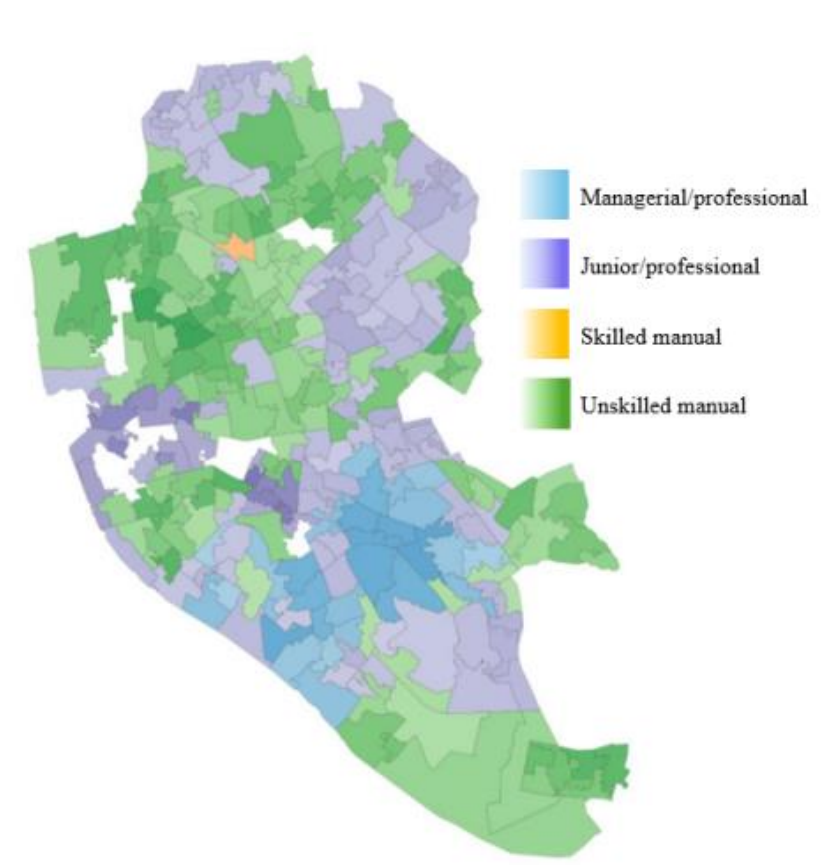
Data: English Index of Multiple Deprivation (Ministry of Housing, Communities & Local Government, 2019)

(ii) Rate of mental health need

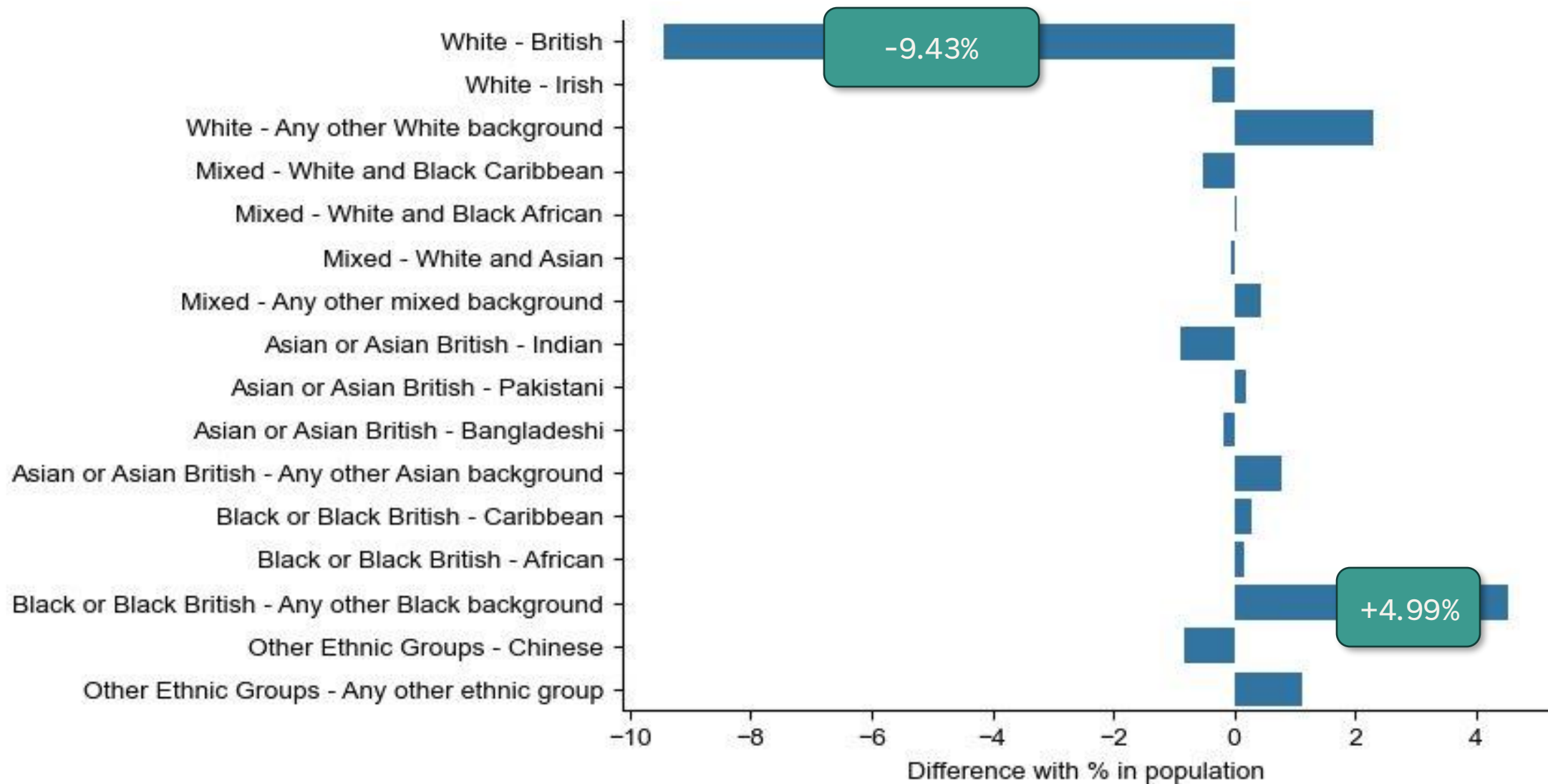


Data: Small Area Mental Health Index (Daras & Barr, 2021)

(iii) % of people in predominant employment type



Data: Approximated Social Grade (2021 Census)



Difference in % of ethnic group in hospital admissions (2018-2023) for patients with an L-postcode, compared to census

Research areas

Understanding inequalities from different perspectives:

1. Patterns and distribution of inequalities in prevalence of mental health conditions & influencing factors

Possible methods:

- Regression
- Clustering
- Geodemographic classification
- Factor analysis

Research areas

Understanding inequalities from different perspectives:

1. Patterns and distribution of inequalities in prevalence of mental health conditions & influencing factors
2. Impact of these inequalities on mental healthcare, e.g. on need, access to services and service utilisation

Possible methods:

- Multi-level modelling
- Two-step floating catchment area
- Creating a provision index

Research areas

Understanding inequalities from different perspectives:

1. Patterns and distribution of inequalities in prevalence of mental health conditions & influencing factors
2. Impact of these inequalities on mental healthcare, e.g. on need, access to services and service utilisation
3. Modelling the interaction between provision of services and these inequalities and how these could change

Possible methods:

- Network analysis
- Percolation analysis
- Difference-in-differences

Possible topics

- Methods for understanding accessibility, demand, need, intersectionality etc
- Mental health datasets
- Determinants of inequalities
- Demography
- Societal trends
- Health inequalities

Thank you

1 McManus, S., Bebbington, P., Jenkins, R., & Brugha, T. (2016). Adult Psychiatric Morbidity Survey: mental health and wellbeing in England, 2014. NHS <https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/adult-psychiatric-morbidity-survey-survey-of-mental-health-and-wellbeing-england-2014>.

Data for maps:

Daras K, Barr B (2021), Small Area Mental Health Index (SAMHI) <Ver. 4.00> [Open Dataset], Place-based Logitudinal Data Resource, DOI: 10.17638/datacat.liverpool.ac.uk/1188

<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

Office for National Statistics (ONS), released 17 August 2023, ONS website, statistical bulletin, <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/aproximatedsocialgradeenglandandwales/census2021>