Exploring the influence of ‘selective sorting’ between area-types and social classes on ethnic health gradients between 1991, 2001 and 2011: What can Census data tell us?

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Context

• Ethnic inequalities in health represent a ‘significant gap in current evidence and policy’ (Nazroo, 2014)

  – Lack of understanding as to nature of ethnic health gradients and a focus on explanations based in culture or genetics

  – Inherent methodological problems of conducting quantitative research with an ethnic perspective

    • Changing categories
    • Lack of robust data

  – Lack of generalisable evidence/research
What can we do?

- Use **existing** data to explore **wider explanations** for ethnic health inequalities.
- Test hypothesis that:
  
  *ethnic inequalities in health are rooted in socioeconomic and spatial difference and may be perpetuated by a process of selective sorting between area-types and social classes.*

- SARs and ONS LS – ethnic differences in health
- SARs: explore relationship between socioeconomic and spatial difference, ethnicity, health and migration
- ONS LS: explore how relationship between migration and deprivation change and social mobility and health varies by ethnicity
Influence on health gradients

Area A
- Lower social classes
- Overcrowding
- Less green space
- High unemployment
- Poorer health

Area B
- Higher social classes
- More sparsely populated
- More green space
- Low unemployment
- Better health

- Differences in health between migrants and non-migrants?
- Differences in health between the migratory flows?
- Size of the migratory flows?
- Health of those ‘left behind’?
- Demographic and socioeconomic attributes of migrants and non-migrants?

- Social mobility?
- Variations by ethnicity?
# Data and Methods

## SARs
  - 2% and 3% sample of England and Wales
- England household population, excludes international migrants

## ONS LS
  - 1% of linked census and vital events data for England and Wales
- England household population, excludes international migrants
- Excludes ill at 91 (91-01) or 01 (01-11)

- SIRs (not shown)
- Modelled odds of LLTI
- Calculated probability of LLTI for different population subgroups by migrant status, ethnicity, socioeconomic status, age and region

- SIRs for transition categories at extremes of deprivation scale and social class structure
  - Q1: Q5
  - I and II: IV and V
- Compare migrants and non-migrants by ethnic group
## Probability of LLTI: adjusting for demographic and socioeconomic attributes, migrant status and an interaction between migrant status and housing tenure

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<td>Non-migrant SC I&amp;II</td>
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- Migrants always have a lower probability of LLTI than non-migrants
- Lower social classes have higher probability of LLTI than higher social classes
- Black Africans = lowest probability of LLTI, South Asian groups = highest probability of LLTI
- Additional difference between ethnic groups not explained by social class, tenure and education – income? Wealth?
# Predicted probabilities (LLTI): age-specific

<table>
<thead>
<tr>
<th>Socioeconomic and migrant status</th>
<th>Ethnicity</th>
<th>Probability of LLTI (2001)</th>
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<td>16-29</td>
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<tr>
<td>Migrant, social classes I &amp; II</td>
<td>White</td>
<td>3.3%</td>
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<td>Indian</td>
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<td>Pakistani &amp; Bangladeshi</td>
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Deprivation change/mobility and health

Source: ONS
Deprivation change/mobility and health for MEGs

- Comparable patterns between 1991 and 2001, and 2001 and 2011 (shown)
- Patterns of health penalty/advantage of least deprived and most deprived areas comparable to those for all-persons
- Health of migrants better than non-migrants for all transition categories apart from those who remain in the most deprived areas
- Greater inequality for migrants compared to non-migrants; and greater inequality between minority ethnic groups than for all persons

Source: ONS
Social mobility and health for MEGs

- Class-health gradient more marked for socially mobile minority ethnic group migrants than deprivation-health gradient
- Similar patterns to those for all-persons, although health of the minority ethnic groups who remain in the top classes better than for all persons
- Migrants at the top of the class structure have better health than non-migrants, whereas migrants at the bottom of the class structure have poorer health than non-migrants

Source: ONS
Social mobility for Indian, Pakistani & Bangladeshi groups

**MIGRANTS**

**INDIANS**

Social classes between 2001 and 2011

**NON-MIGRANTS**

**PAKISTANIS & BANGLADESHIS**

Social classes between 2001 and 2011

Source: ONS
Conclusions and Next Steps

- Health varies within ethnic groups by age, socioeconomic status, region and migrant status
- Selective sorting of migrants may contribute to ethnic health gradients
- Stable disadvantaged groups have worst health
- Greater inequality for all groups between 91-01, 01-11
- Selective sorting appears to contribute to widening health gradients

- Change between 2001 and 2011 (2011 ISARs?)
- Differences by age for selective sorting (ONS LS)?
- Different ‘measures’ of ethnicity and multi-dimensional measure of SES?
- Implications of immobility?
References


Pictures

• http://www.telegraph.co.uk/news/features/3632974/Its-pitchforks-at-dawn.html
Acknowledgements

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