

# Does the level of wealth inequality within a neighbourhood influence the prevalence of depression amongst older people?

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## What is an area health effect?

An area health effect is where the characteristics of the place where a person lives influences their health over and above the influence of their individual circumstances (e.g. age, wealth)

Poorer health (and social) outcomes in deprived areas cannot only be explained by only the characteristics of the individual residents



Cheshire, J. 2012. Lives on the Line: Mapping Life Expectancy Along the London Tube Network. *Environment and Planning A.* 44 (7). Doi: 10.1068/a45341.



## **Glasgow: health inequalities**

- Glasgow has particularly poor health outcomes relative to the UK and Europe
- And very strong inequalities; life expectancy of 54 in the Carlton area of Glasgow

   28 years less than that in Lenzie (82) a few miles away.



Red Road flats - Glasgow



#### **Context: Built environment, services, aesthetic quality**





## **Availability of food**















## **Depression and older people: background**

- Depressive disorders are a leading global cause of years lost due to disability for both males and females (Murray et al. 2012)
- Depression exhibits a strong social gradient
- Higher risks for women, those who are single, in care institutions, have health problems and fewer social contacts (Rodda et al. 2011; Chapman & Perry 2008; Beekman et al. 1995)
- Consequences are particularly severe at older ages
- Area deprivation associated with depression
- Area inequality? Test two theories in the literature.





## Wealth inequality hypothesis

- Greater inequality drives poorer health outcomes driven by:
- Stresses associated with harmful social comparison
- Less cohesive neighbourhoods
- Lower support for public investment of time and money in communal facilities, services and infrastructure
- Originally proposed to explain differences between outcomes across societies
- Hypothesis evaluated for sub-national areas





## Evidence

- Inconclusive
- Effect of area inequality very small
- Studies find area inequality both protective and harmful to health
- Stronger evidence for wealth inequality hypothesis at larger scales and in countries with greater subnational inequality (Wilkinson 2007)





## Mixed neighbourhood hypothesis

- Greater inequality (social mixing) within a neighbourhood can have positive influence on various social outcomes including health
- Emphasis on poor areas
- Cultures of worklessness, crime, health damaging behaviour
- Overstretched public services
- Long policy tradition Garden City movement to New Labour, legislation around planning permission, Joseph Rowntree Foundation



## Evidence

- Inconclusive!
- Including studies that examine the effects of programmes to reduce concentrations of poverty (e.g. the Moving to Opportunity scheme)
- Survey research reveals no, or limited, evidence in favour of the benefits of mixed neighbourhoods for health social outcomes (Graham et al. 2009; Ostendorf et al. 2010; Atkinson & Kintrea 2001; Galster et al. 2008; Musterd & Andersson 2005)
- Two studies on mental health find improved outcomes in more mixed areas (Weich et al. 2001; Fone et al. 2013)





## **Contributions of the fRaill research**

 Older people – more susceptible to area health effects

• House price sales – area inequality

• Finer geography (Middle Super Output Areas; average population 7,200)





#### What about the extent of neighbourhood inequality?



Does the extent of economic inequality (or mixing) in a neighbourhood influence the risk of depression among older people?



## **English longitudinal Study of Ageing**

- Longitudinal panel survey of people aged over 50 in 2002
- 11,391 people (core sample) aged 50+ in wave 1 (2002-3)
- Geographical identifier (Neighbourhood)
- Depression (CES-D)
- Socio-demographic characteristics

Additional area data (neighbourhoods - msoas)

- Indices of multiple deprivation (2004)
- Area house price sales (2<sup>nd</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup> and 98<sup>th</sup> percentiles)





## **Depressive symptoms – CES-D**

During much of the time last week did you feel:

- depressed
- everything was an effort
- your sleep was restless
- happy
- lonely
- you enjoyed life
- sad
- you could not get going

#### Score of 4 or more = depressive symptomatology





## Multilevel logistic regression model

#### **Dependent variables** –depression (CES-D – 4

or more symptoms of depression)

#### Explanatory variables – individual

age, age squared, sex, economic activity, living arrangements, ethnicity, wealth (individual),

qualifications, tenure,.....

#### **Explanatory variables – area**

Area median house price

Index of Multiple Deprivation (2004)

Quintiles of area inequality (Gini) in house prices



## Depression and individual wealth





Model controls for age, sex, qualifications, ethnicity, Living arrangements, economic activity, area deprivation, median area house price

# Depression and area deprivation



Model controls for age, sex, wealth, qualifications, ethnicity, living arrangements, economic activity and median area house price



## **Depression and area inequality**





Model controls for age, sex, qualifications, ethnicity, living arrangements, economic activity, area deprivation, median area house price

## Depression and area inequality: by household wealth



Model controls for age, sex, qualifications, ethnicity, living arrangements, economic activity, area deprivation, median area house price





## **Key findings**

- Individual wealth is the most important determinant of depression
- Higher risks of depression in more deprived areas
- Findings support mixed neighbourhood hypothesis
- Most unequal neighbourhoods have the lowest prevalence of depression
- This finding noted in other studies (Weich et al. 2002; Fone et al. 2013)
- Association strongest for poor but also holds richer individuals





## Interpretation

#### Poor

- Social mixing reduces health harming cultures that might arise in particularly homogenous deprived neighbourhoods
- People with middle and higher incomes sustain social and health facilities/services that are beneficial to aspects of health including depression

#### Rich

- Sense of achievement through social comparison in mixed areas
- Pressure to keep up with neighbours and cost of living in homogenous affluent neighbourhoods
- Reflect an uncaptured characteristic held by more affluent people that predicts desire to live in a socially-mixed area and protects against depression



## Policy

Policy makers concerned with tackling depression at the older ages might consider targeting:

- Socio-economic circumstances of individuals
- Area deprivation
- Social mix within an area



• But.....

## The Telegraph

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## 'Poor doors' on plush new developments segregate rich from poor

Developers forced to include affordable housing in their plans provide the low income tenants with separate entrances



The new Queen's Park Place developments sets out the separate entrances for the 28 affordable homes in their FAQs

## CMS,

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