Local Health Inequalities in an Age of Austerity: the Stockton on Tees Study

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Background
- The Good, the Bad and the Ugly: Recessions & Health
- The Really Ugly: Austerity & Health
- Missing evidence: local health inequalities

Methods
- Local health inequalities: Stockton on Tees
- Austerity in the UK
- Work Packages: from epidemiology to ethnography

Emerging Results

Next Steps
Recessions & Health

**Good:** growth, not recession that is detrimental to all cause mortality; tobacco and alcohol consumption decreases

**Bad:** deteriorations in morbidity and mental health, increased suicide, increased unemployment and job insecurity

**Ugly:** effects of recessions on health inequalities; spatial variation within and between countries

Good: Recession & Mortality

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Beta</th>
<th>Predicted Additional Deaths</th>
<th>Total Deaths 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Causes</td>
<td>-0.0047</td>
<td>-11803</td>
<td>2397615</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>-0.0047</td>
<td>-4260</td>
<td>865863</td>
</tr>
<tr>
<td>Cancer</td>
<td>0.0019</td>
<td>1019</td>
<td>567468</td>
</tr>
<tr>
<td>Respiratory</td>
<td>-0.0118</td>
<td>-2771</td>
<td>229076</td>
</tr>
<tr>
<td>Infections</td>
<td>-0.02</td>
<td>-1453</td>
<td>78531</td>
</tr>
<tr>
<td>Degenerative Brain</td>
<td>-0.0166</td>
<td>-2686</td>
<td>148397</td>
</tr>
<tr>
<td>Kidney</td>
<td>-0.0153</td>
<td>-683</td>
<td>43244</td>
</tr>
<tr>
<td>Motor Vehicle Accidents</td>
<td>-0.0294</td>
<td>-1285</td>
<td>44933</td>
</tr>
<tr>
<td>Other Accidents</td>
<td>-0.0103</td>
<td>-603</td>
<td>67079</td>
</tr>
<tr>
<td>Suicide</td>
<td>0.0168</td>
<td>641</td>
<td>32439</td>
</tr>
<tr>
<td>Homicide</td>
<td>-0.0162</td>
<td>-290</td>
<td>17729</td>
</tr>
<tr>
<td>VS other</td>
<td>-0.0138</td>
<td>-1587</td>
<td>120365</td>
</tr>
<tr>
<td>Ntrn, Birth Defects, Gastro.</td>
<td>-0.0046</td>
<td>-832</td>
<td>182491</td>
</tr>
<tr>
<td>All non-Motor Vehicle Accident</td>
<td>-0.0043</td>
<td>-10755</td>
<td>2352682</td>
</tr>
</tbody>
</table>

Reductions in deaths that would be predicted from 1% increase in the unemployment rate, USA

Bad: Recession & Suicide

Europe

USA

Reeves et al (2012)
Barr et al (2012)
Recession & Health Inequalities

- A Japanese study found that recession increased relative occupational inequalities in self-rated health amongst men
- A Finnish study found that the recession slowed down the trend towards increased inequalities in mortality
- A series of studies of morbidity in Finland, Norway, Sweden and Denmark concluded that there were no significant effects of the 1990s recession on health inequalities in these countries
- Recessions increased inequalities in general health in England but not Sweden
- Increased inequalities in mental health in England 2004-2013

Austerity, Health & Health Inequalities

- Not recessions *per se* that matter but the austerity that may follow: ‘austerity kills’
- Population health effects of recessions vary by policy context - particularly in terms of mental health and suicides
- Asian economic crisis - public expenditure important in mitigating the health effects
- USA 1960s-2000s War on Poverty v Reagan/Bush
- Welfare state restrictions in New Zealand 1980s-2000s
- Protective effect of welfare state in reducing impact on inequalities during recessions

Austerity in the UK

Life expectancy at birth 2014

Welfare payment cuts per head up to 2016

Local authority cuts per head up to 2016
Missing Evidence

Evidence:
• Most evidence on general population
  – little on austerity and HI
• Almost entirely epidemiological

Missing:
• Beyond epidemiology
• An integrated and holistic mixed methods focus
• An in-depth local case study
• Geographical element
Why Stockton on Tees?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Period</th>
<th>England</th>
<th>North East region</th>
<th>Northumberland</th>
<th>Tyne and Wear</th>
<th>County Durham</th>
<th>Sunderland</th>
<th>Darlington</th>
<th>Stockton-on-Tees</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1i - Healthy life expectancy at birth (Male)</td>
<td>2013-15</td>
<td>63.4</td>
<td>60.1</td>
<td>59.6</td>
<td>58.8</td>
<td>58.4</td>
<td>59.9</td>
<td>60.9</td>
<td>60.4</td>
</tr>
<tr>
<td>0.1i - Healthy life expectancy at birth (Female)</td>
<td>2013-15</td>
<td>64.1</td>
<td>60.1</td>
<td>57.0</td>
<td>59.8</td>
<td>60.1</td>
<td>62.3</td>
<td>64.2</td>
<td>61.5</td>
</tr>
<tr>
<td>0.1ii - Life expectancy at birth (Male)</td>
<td>2013-15</td>
<td>79.5</td>
<td>77.9</td>
<td>78.1</td>
<td>79.7</td>
<td>77.7</td>
<td>76.8</td>
<td>76.1</td>
<td>77.8</td>
</tr>
<tr>
<td>0.1ii - Life expectancy at birth (Female)</td>
<td>2013-15</td>
<td>83.1</td>
<td>81.6</td>
<td>81.2</td>
<td>81.9</td>
<td>81.4</td>
<td>81.3</td>
<td>79.8</td>
<td>81.5</td>
</tr>
<tr>
<td>0.1iii - Life expectancy at 65 (Male)</td>
<td>2013-15</td>
<td>18.7</td>
<td>17.8</td>
<td>18.0</td>
<td>17.7</td>
<td>17.3</td>
<td>17.0</td>
<td>17.7</td>
<td>17.2</td>
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<td>2013-15</td>
<td>21.1</td>
<td>19.9</td>
<td>19.7</td>
<td>20.3</td>
<td>19.7</td>
<td>19.0</td>
<td>19.0</td>
<td>20.2</td>
</tr>
</tbody>
</table>
Two miles and 17 years apart ....
1. What is the extent of health inequalities and what are the factors underpinning them?

2. How do local area health inequalities manifest themselves in the lived experiences of residents?

3. How might current health inequalities relate to the history and biography of Stockton-on-Tees?

4. What is the impact of economic downturn and associated austerity measures on health inequalities & social determinants?
Survey and Secondary Data Analysis

Base Line Random Sample, Face to Face

LSOAs identified in Stockton-on-Tees N=120

20 LSOAs with lowest indices of Multiple Deprivation scores (most deprived) identified

Households randomly selected to participate N=4000

20 LSOAs with highest indices of Multiple Deprivation scores (least deprived) identified

Households randomly selected to participate N=4000

Uncontactable N=2860

Opt out over phone N=236

Refusals N=479

Empty properties N=29

Individual within household assigned using household selection grid. N=397/1111 (35.7% response)

Data cleansing. Final N=356 (10.3% unused cases)

Analysis

Uncontactable N=2764

Opt out over phone N=270

Refusals N=498

Empty properties N=29

Individual within household assigned using household selection grid. N=439/1207 (36.4% response)

Data cleansing. Final N=377 (14.1% unused cases)
## Baseline Analysis

<table>
<thead>
<tr>
<th>Least Deprived</th>
<th>Most Deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 and over</td>
<td>32%</td>
</tr>
<tr>
<td>Female</td>
<td>57%</td>
</tr>
<tr>
<td>Higher or First Degree</td>
<td>27%</td>
</tr>
<tr>
<td>Own outright or loan</td>
<td>88%</td>
</tr>
<tr>
<td>Housing Benefit</td>
<td>4%</td>
</tr>
<tr>
<td>Household Income</td>
<td>£37k to £42k</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Gap explained</th>
<th>Measure 1 (SF8PCS)</th>
<th>Measure 2 (EQ5D)</th>
<th>Measure 3 (EQVAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any health condition</td>
<td>60%</td>
<td>45%</td>
<td>+33%</td>
</tr>
<tr>
<td>Mental health</td>
<td>12%</td>
<td>10%</td>
<td>+20%</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>21%</td>
<td>18%</td>
<td>+16%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>12%</td>
<td>8%</td>
<td>+50%</td>
</tr>
<tr>
<td>3 or more conditions</td>
<td>19%</td>
<td>10%</td>
<td>+90%</td>
</tr>
<tr>
<td>Health Scores</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQ5D*</td>
<td>75</td>
<td>87</td>
<td>+13%</td>
</tr>
<tr>
<td>EQ-VAS*</td>
<td>64</td>
<td>74</td>
<td>+16%</td>
</tr>
<tr>
<td>WEDMHS*</td>
<td>50</td>
<td>55</td>
<td>+10%</td>
</tr>
<tr>
<td>SF8-MCS*</td>
<td>50</td>
<td>54</td>
<td>+8%</td>
</tr>
<tr>
<td>SF8-PCS*</td>
<td>48</td>
<td>50</td>
<td>+8%</td>
</tr>
<tr>
<td>BM*</td>
<td>27</td>
<td>28</td>
<td>+6%</td>
</tr>
</tbody>
</table>
Follow-up

<table>
<thead>
<tr>
<th></th>
<th>LEAST DEPRIVED</th>
<th>MOST DEPRIVED</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Baseline</td>
<td>397</td>
<td></td>
<td>439</td>
</tr>
<tr>
<td>6m</td>
<td>229</td>
<td>58</td>
<td>286</td>
</tr>
<tr>
<td>12m</td>
<td>218</td>
<td>55</td>
<td>280</td>
</tr>
<tr>
<td>18m</td>
<td>176</td>
<td>44</td>
<td>234</td>
</tr>
</tbody>
</table>

Mental health inequality between most and least deprived areas

Health inequalities gap between two areas

EQ5D-VAS  SF8PCS
Qualitative & Ethnographic

Urban Ethnography of Health Inequalities

Kayleigh Garthwaite – social policy

Mental Health in Austerity

Women, Health and Austerity

Amy GreerMurphy - geography

Kate Mattheys – social policy
Life Inside Foodbank Britain

• Over 1 million people accessed a foodbank in 2016

• 2 years of weekly volunteering and observation

• over 80 qualitative interviews with detailed observation and field notes

• Field notes included observations, conversations, and reflexive experiences

• Kayleigh’s identity as a researcher was made known to all foodbank users, volunteers and referring agencies
Foodbank use

- The result of an immediate income crisis, often due to problems with benefits, such as sanctions and delays
- Longer term income insecurity, including fuel poverty, low paid work, debt, and homelessness
- ‘Tipping’ points including ill health, bereavement, and relationship breakdown
Summary of Key Findings

- Benefit sanctions, delays and changes are key driving forces for foodbank use
- Participants’ experiences and behaviour challenges popular political and policy narratives that individuals are using foodbanks because of poor lifestyle choices
- Foodbank use was very much a last resort, with the majority of foodbank users experiencing stigma, fear, and embarrassment

Angie, foodbank manager:

“Oh it varies considerably. Some people because they’ve lost their job and they haven’t got any benefits. Some people haven’t even thought about the benefits system because they’re used to supporting themselves, they’re using their savings so they come [to the foodbank] when they come to the end of that and it’s “What am I going to do now?” We’ve had a few people in in tears because of that. They’ve never had to ask for anything, they’ve never been on benefits and they’re a bit distraught and ashamed”.
Archival & Oral History

Austerity then and now: 1930s Stockton

Michael Langthorne – History

Industrial lives, legacies, futures

Jon Warren - sociology
Next steps

• 18m left
• Edited book
• 3 PhDs to submit
• Longitudinal analysis – qualitative and quantitative
• 2 x history books being written
• Future funding and ideas - fellowships
Examples of Project Publications

- **HEALTH DIVIDES**
  *Where You Live Can Kill You*
  Clare Bambra

- **HUNGER PAINS**
  *Life inside foodbank Britain*
  Kayleigh Garthwaite

- **Austerity, welfare reform and the English health divide**
  Clare Bambra and Kayleigh Garthwaite

- **CURRENT ISSUES**
  *The Coalition, austerity and mental health*
  Kate Mattheys

- **HEALTH INEQUALITIES**
  *Critical perspectives*
  Edited by Katherine E. Smith, Clare Bambra, and Sarah E. Hill

- **Article**
  *Inequalities in mental health and well-being in a time of austerity: Baseline findings from the Stockton-on-Tees cohort study*
References

- Neumayer, E. (2004). Recessions lower (some) mortality rates: evidence from Germany. Social Science & Medicine, 58, 1037-1047