

# Social Care Research within the School of Social Policy

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**IMPACT**

Improving Adult Care Together



**Centre for Care**



**UNIVERSITY OF  
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**NIHR**

School for Social  
Care Research

**NIHR BRACE Rapid Evaluation Centre**

## 1. Inequalities in care - complex and intersectional

- Focus on (un)paid carers and wellbeing outcomes (adults, children, people receiving and needing care)
  - Material, Relational and Health
- Linking and analysis of **background, place** and **time**
  - Social surveys – e.g understanding Society
  - ONS Longitudinal Study 2001, 2011, 2021

## 2. Data Infrastructure

- Improve availability and accessibility of data for **applied research**
  - Harmonizing, visualizing, dashboard tools
  - Census and mandated data e.g. Social Care Collection
- Improve quality and gaps in data
  - Survey of Carers
  - Multisector integrated data

## Working with policy partners to fill evidence gaps

- Charities (e.g. Carers UK, Sheffield Young Carers)
- Office for National Statistics and ADR-UK- administrative data linkages and analysis
- Local Authorities / Integrated Care Boards
  - (S. Yorkshire ICB, Sheffield CC, Hampshire CC)
- Government departments (BEIS, DHSC, DWP).

## Methods

- Qualitative and mixed methods
- Multilevel and panel modelling (incl. MAIHDA)
- Causal inference (individual synthetic control)
- Computational social Science (Machine Learning and AI)



# Valuing Carers 2021: England and Wales

## Valuing Carers 2021

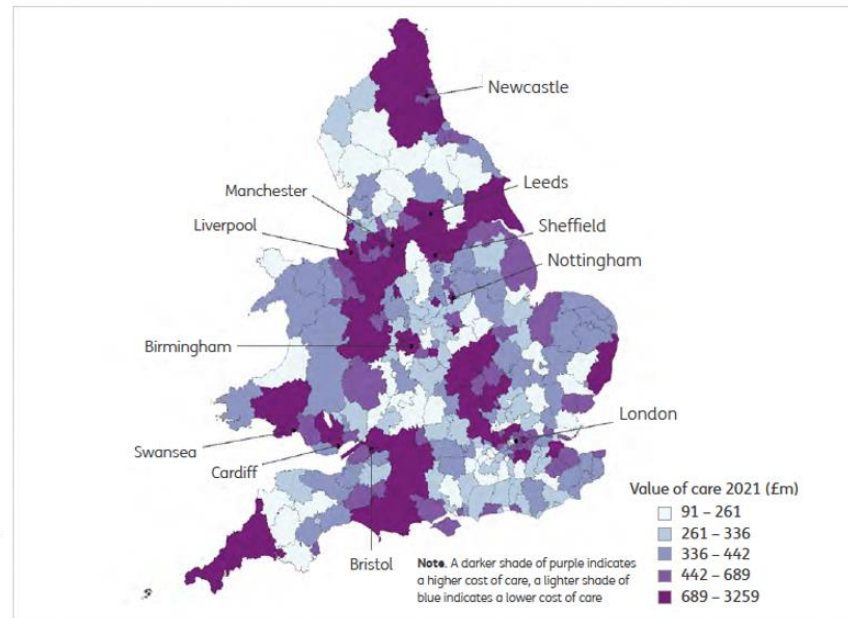
England and Wales

Dr Maria Petrillo  
Professor Matt Bennett



Unpaid carers' support is worth  
**£162 billion**  
a 29% increase since 2011

Figure 3: Geographic variation in the value of unpaid carers' contributions across England and Wales (2021)



Source: Authors' calculations based on the Office for National Statistics (ONS) Census 2021 using the unit cost of replacement care as determined by the Personal Social Services Research Unit (Jones and Burns, 2021).

Table 1: Total number of unpaid carers 2001, 2011, 2021 by country and hours of care

	2021 No. of unpaid carers	2021 (%)*	2011 No. of unpaid carers	2011 (%)*	2001 No. of unpaid carers	2001 (%)*
<b>England</b>						
19 hrs or less	2,303,730	4.4	3,452,640	7.2	3,347,525	7.6
20-49 hrs	969,765	1.8	721,135	1.5	530,805	1.2
50+ hrs	1,404,770	2.7	1,256,230	2.7	998,735	2.3
<b>England - Men</b>						
19 hrs or less	964,390	3.8	1,489,265	6.3	1,455,525	6.8
20-49 hrs	388,845	1.5	304,730	1.3	212,955	1.0
50+ hrs	554,260	2.3	503,770	2.3	394,275	2.0
<b>England - Women</b>						
19 hrs or less	1,339,335	5.0	1,963,360	8.0	1,892,005	8.4
20-49 hrs	580,920	2.2	416,405	1.7	317,850	1.4
50+ hrs	850,505	3.2	752,480	3.1	604,465	2.7
<b>Wales</b>						
19 hrs or less	138,330	4.7	212,435	7.4	208,295	7.8
20-49 hrs	65,590	2.2	54,050	1.9	42,840	1.6
50+ hrs	106,835	3.6	103,740	3.7	89,605	3.4
<b>Wales - Men</b>						
19 hrs or less	57,675	4.0	91,935	6.6	1,455,525	6.8
20-49 hrs	26,965	1.9	23,095	1.7	212,955	1.0
50+ hrs	44,775	3.1	43,145	3.3	394,275	2.0
<b>Wales - Women</b>						
19 hrs or less	80,655	5.4	120,490	8.3	17,025	7.1
20-49 hrs	38,630	2.6	30,950	2.1	36,525	1.4
50+ hrs	62,055	4.1	60,605	4.2	1,172,990	3.0
<b>England and Wales</b>						
19 hrs or less	2,442,060	4.4	3,665,075	7.2	3,555,820	7.6
20-49 hrs	1,035,355	1.9	775,185	1.5	573,645	1.2
50+ hrs	1,511,605	2.8	1,359,970	2.7	1,088,340	2.4

Source: Office for National Statistics (ONS) Census 2021, 2011 and 2001. In 2021 the hours categories are: 0-9, 10-19, and 50 and more hours. Thus, in 2021 we are also capturing those people who provide less than one hour of care, unlike in 2011 when only those providing more than one hour of care were captured (1-19). Note: \* percentage of the population (age-standardised proportion).



# Valuing Carers 2021: Northern Ireland



## Valuing Carers 2021

Northern Ireland

Dr Jingwen Zhang  
Dr Maria Pettilo  
Professor Matt Bennett



Unpaid carers' support in Northern Ireland is worth:

£5.8 billion



Per year

£112 million



Per week

£16 million



Per day

£0.7 million



Per hour

Uv NEWS Your Area Cost of Living Advice Ukraine Politics Royal World Climate

Unpaid carers save Northern Ireland's health service £5.8 billion a year, research suggests

UTV | NORTHERN IRELAND | CARERS | Thursday 23 November 2023 at 9:51am



- This is a 42% increase compared to 2011
- 85% of Department of Health's entire budget in 2021 (£6.8 billion)
- 5 times more than is spent on Adult Social Services across HSCTs
- Health and Social Care system would collapse without unpaid carers

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The Cost of Caring

Carers NI latest research shows that unpaid carers are saving the economy £5.8 billion a year.

27 days left to listen  
56 minutes

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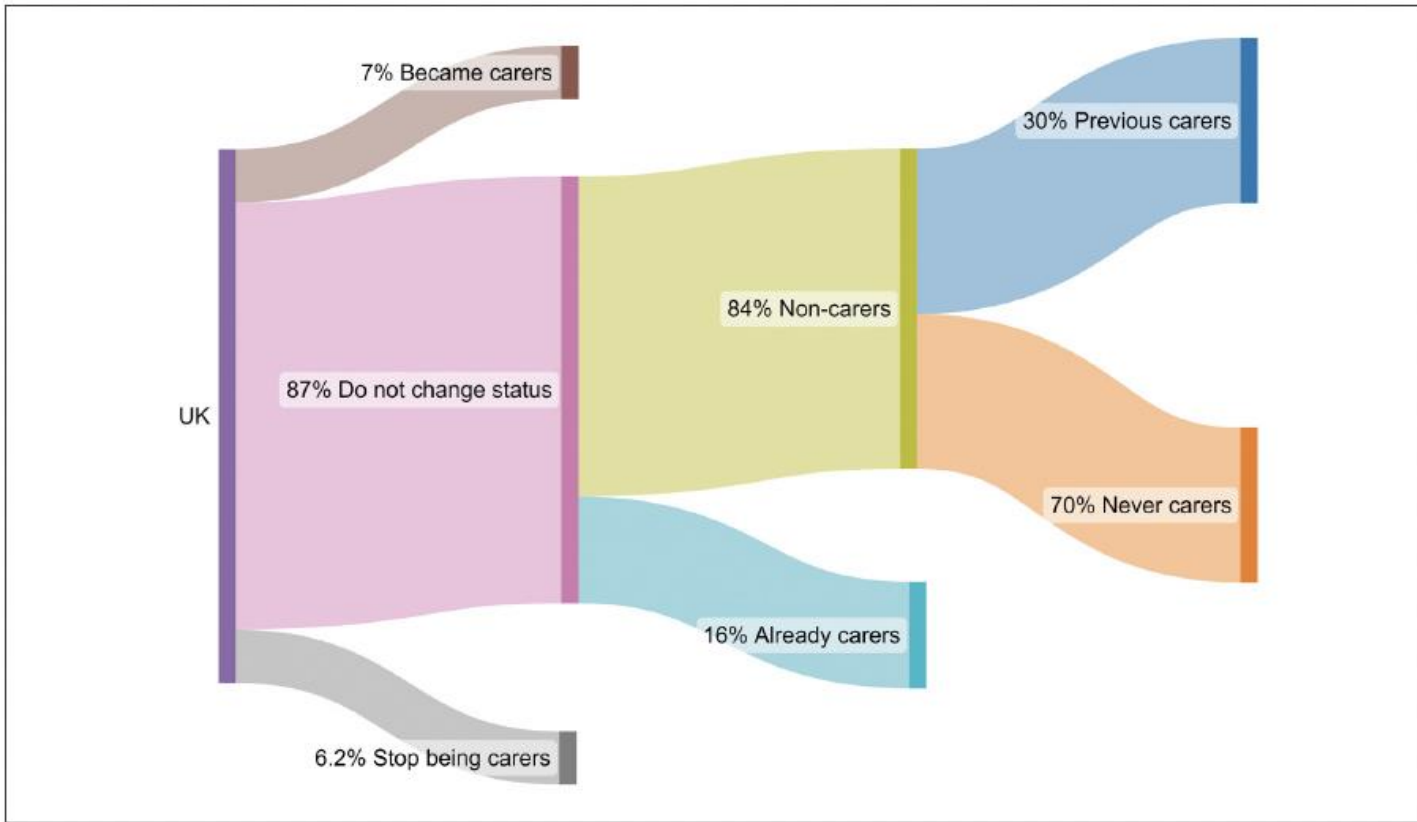
# Cycles of Caring: Transitions in and out of care

- Every year, 4.3 million people became unpaid carers – 12,000 people a day
- In **England**, more than 3.6 million people became unpaid carers (nearly 1.7 million men and more than 1.9 million women)<sup>7</sup>
- In **Wales**, more than 210,000 people became unpaid carers (more than 100,000 men and more than 110,000 women)<sup>8</sup>
- In **Scotland**, more than 340,000 people became unpaid carers (more than 150,000 men and about 190,000 women)<sup>9</sup>
- In **Northern Ireland**, more than 125,000 people became unpaid carers (more than 58,000 men and 67,000 women).<sup>10</sup>

- Every year, more than 4 million people left their unpaid caring roles
- More than 1.9 million people<sup>11</sup> in paid employment became unpaid carers every year<sup>12</sup> – 5,300 people every day
- In **England**, more than 1.6 million people in paid employment became carers
- In **Wales**, about 93,000 people in paid employment became carers
- In **Scotland**, more than 150,000 people in paid employment became carers
- In **Northern Ireland**, nearly 55,000 people in paid employment became carers.



Figure 1: Average unpaid caring status in the UK



Source: Authors' new calculations based on years 2010-2020 of Understanding Society



# Homepage

District: Multiple selections

Year: 2021

## 100K

Number of Carers



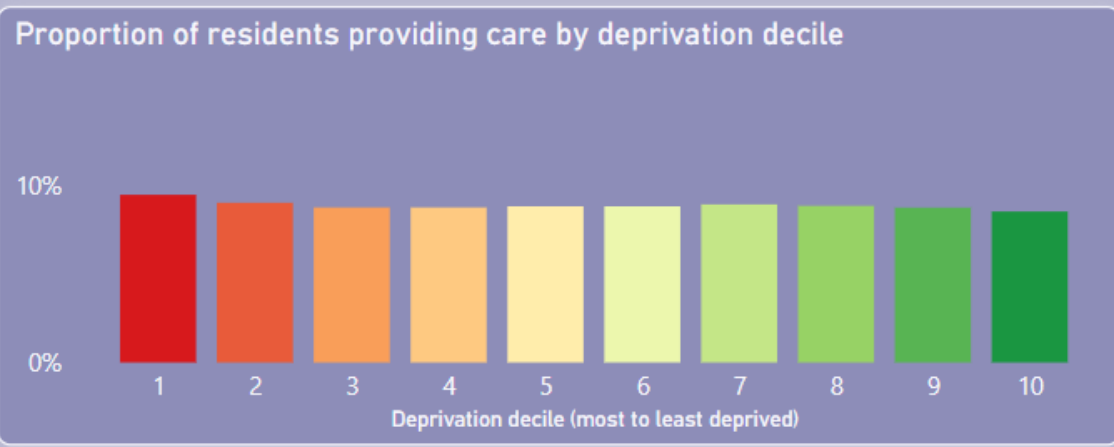
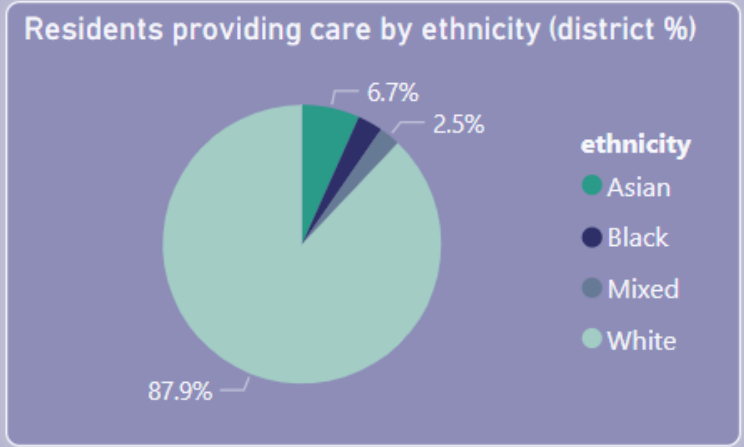
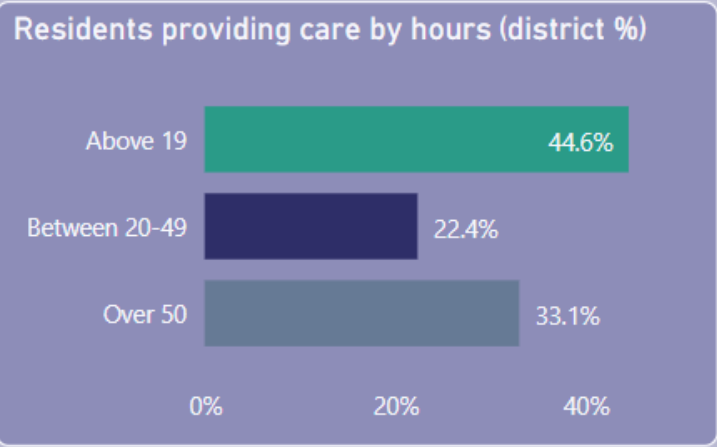
## 1:1.45

Male : Female Carers



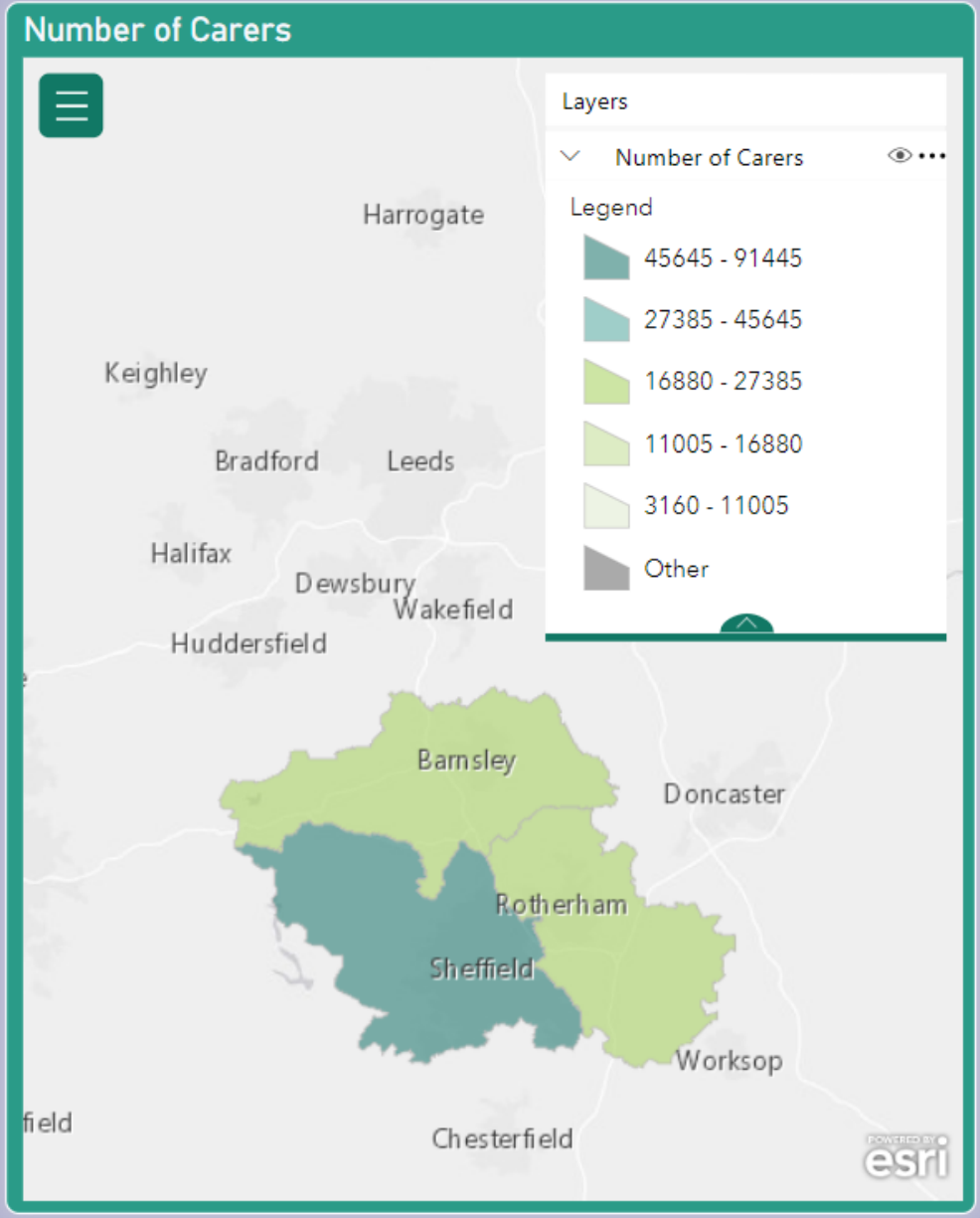
## £3,484m

Value of Care



### Select Age Group

<input type="checkbox"/> Under 30s	<input type="checkbox"/> 50s
<input type="checkbox"/> 30s	<input type="checkbox"/> 60s
<input type="checkbox"/> 40s	<input type="checkbox"/> Over 70s





# General Health

Health: Main Map

Good Health

District

Multiple selections

Year

2021

Health

Good Health

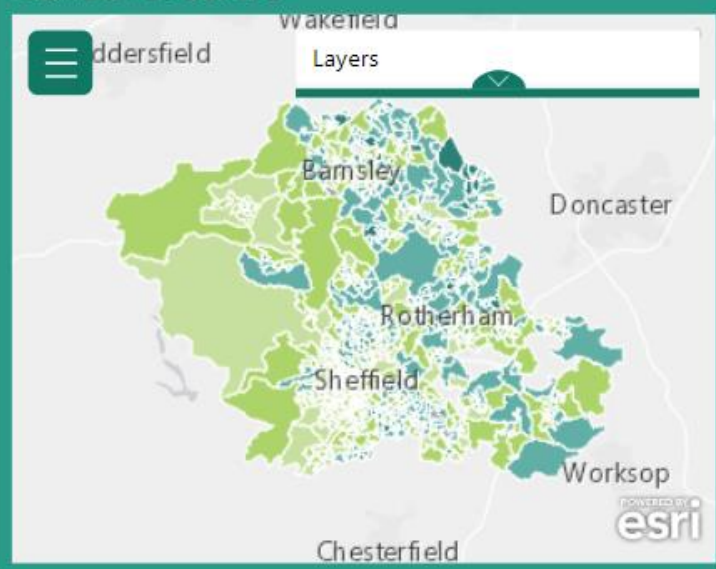
Health

Fair Health

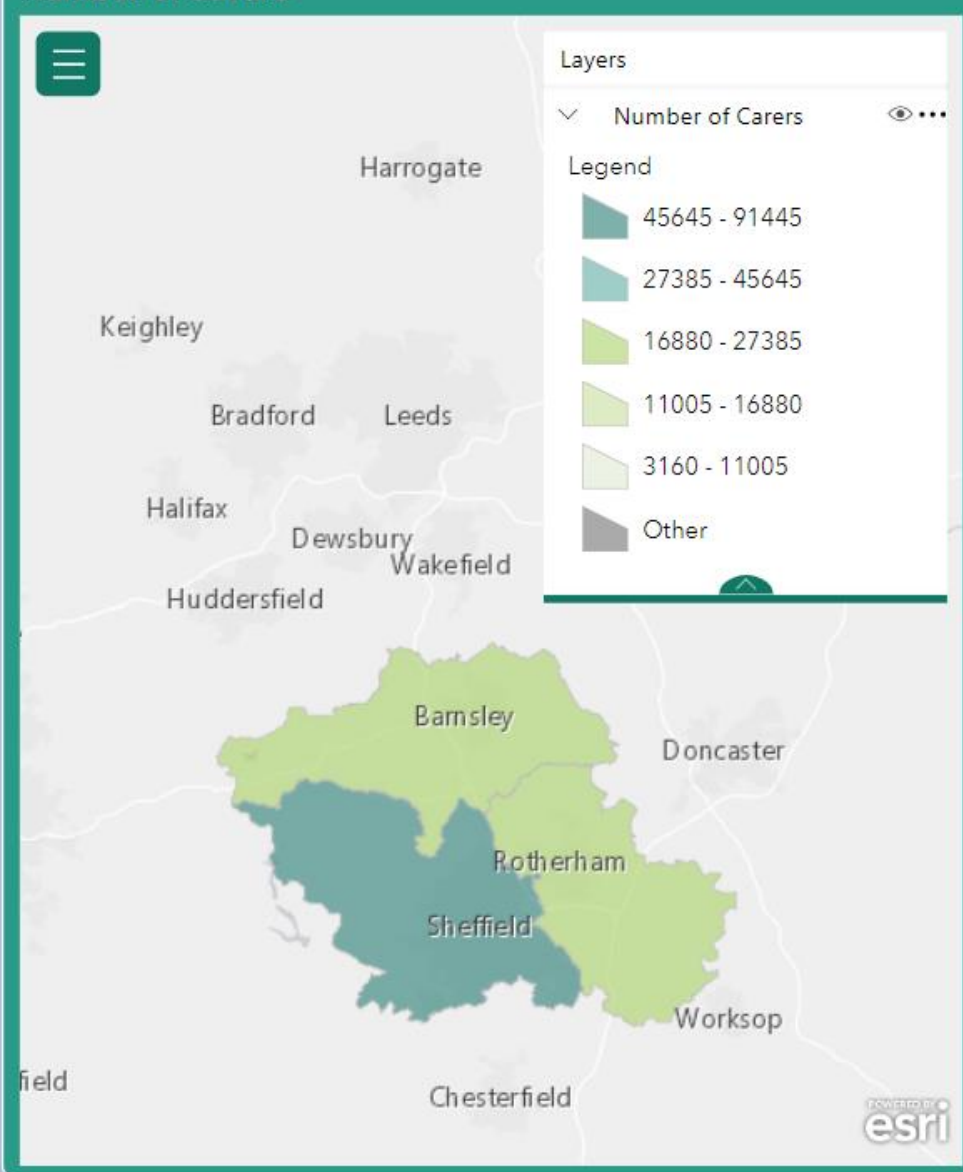
## Number of Carers



## Number of Carers



## Number of Carers



In the districts of [Barnsley](#), [Rotherham](#), [Sheffield](#), there are currently:

**843,424** people in Good Health (**79 %** of residents)

**70,658** people in Bad Health (**7 %** of residents)

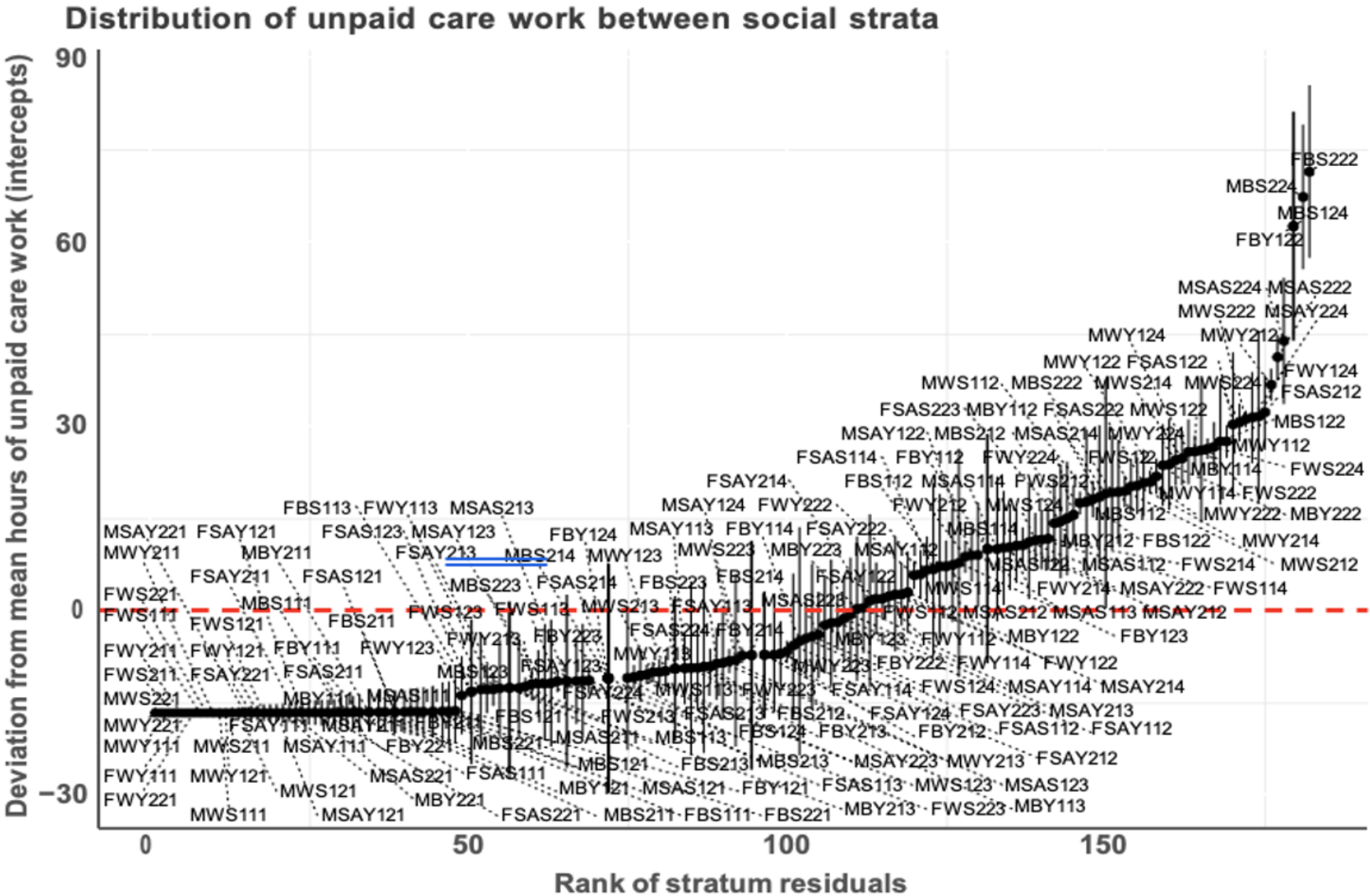
**152,819** people in Fair Health (**14 %** of residents)

## Distribution of neighbourhoods





# Intersectional profiles of unpaid carers in the UK



Strata Variable	Levels
Sex	Female
	Male
Race/Ethnicity	Bangladeshi
	Black African
	Black Caribbean
	Indian
	Pakistani
	White
Income	Low
	Mid
	High
Education	Degree
	No degree
Age	Young
	Adult
	Retirement age

# Intersectional profiles associated with the highest and fewest hours of care

## **10 intersectional profiles providing the highest hours of care**

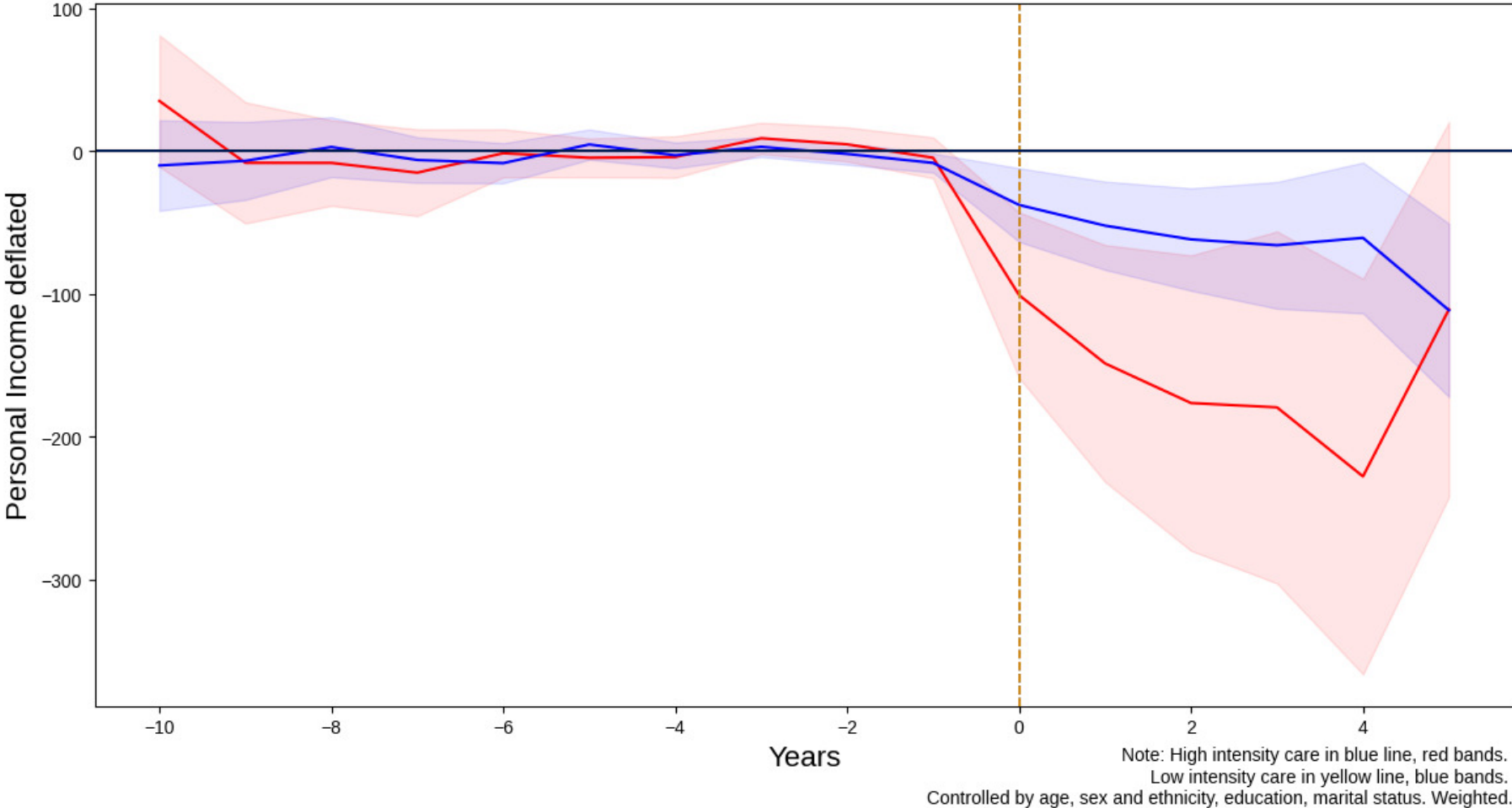
1. Female, Pakistani, low income, no degree, middle age
2. Female, White, low income, no degree, older
3. Female, Black African, low income, no degree, middle age
4. Female, Pakistani, high income, no degree, middle age
5. Female, Pakistani, low income, no degree, middle age
6. Female, Black African, low income, no degree, middle age
7. Female, White, low income, no degree, middle age
8. Female, Pakistani, middle income, no degree, middle age
9. Female, Black African, low income, no degree, middle age
10. Female, Bangladeshi, low income, no degree, middle age

## **10 intersectional profiles providing the fewest hours of care**

1. Male, White, high income, no degree, middle age
2. Female, Black African, low income, no degree, younger
3. Female, White, middle income, degree, younger.
4. Male, White, middle income, degree, younger
5. Female, White, high income, degree, younger
6. Male, White, low income, no degree, younger
7. Female, White, high income, no degree, younger
8. Male, White, low income, no degree, younger
9. Male, White, middle income, degree, younger.
10. Male, White, middle income, no degree, younger

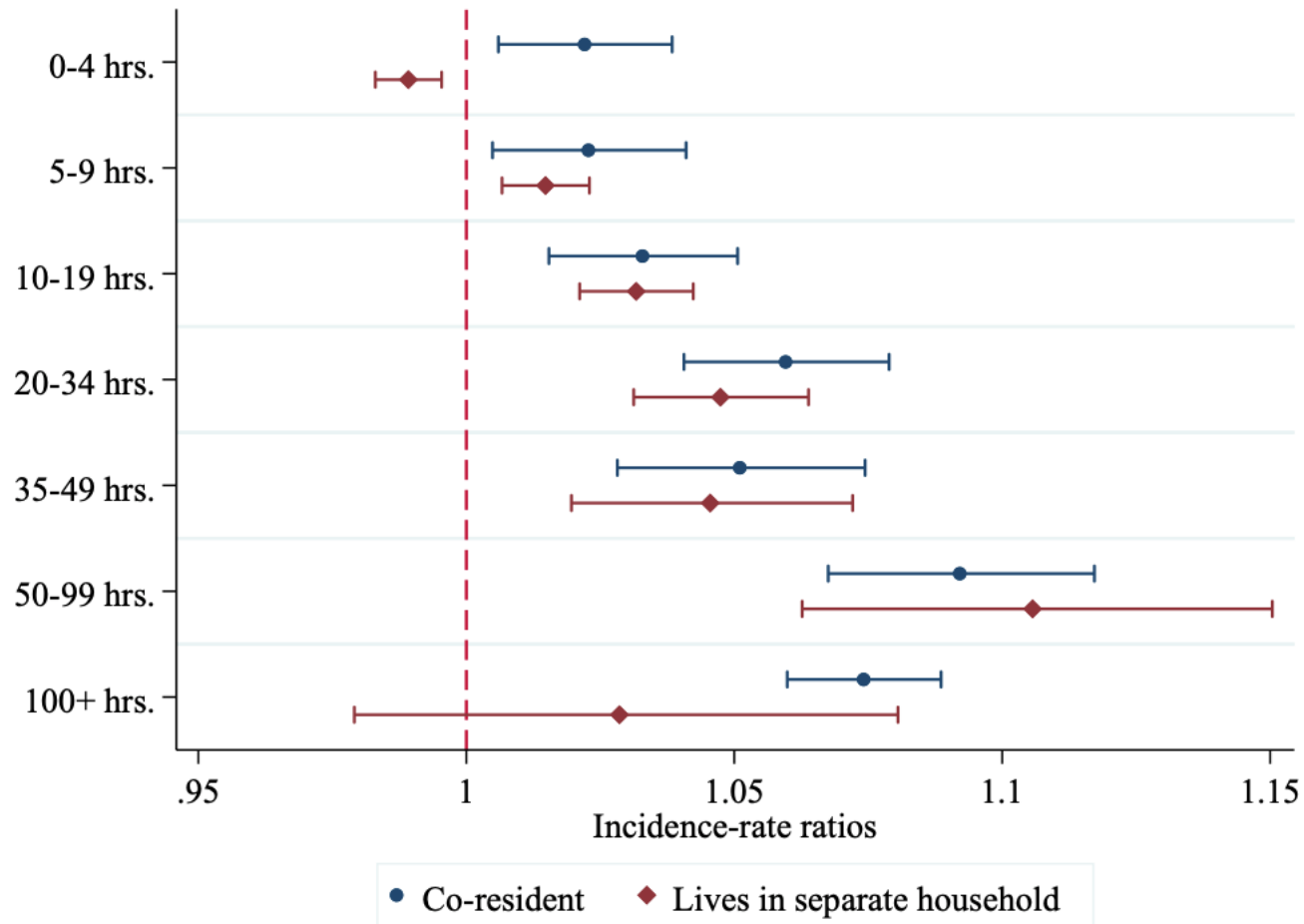


# The financial cost of caring



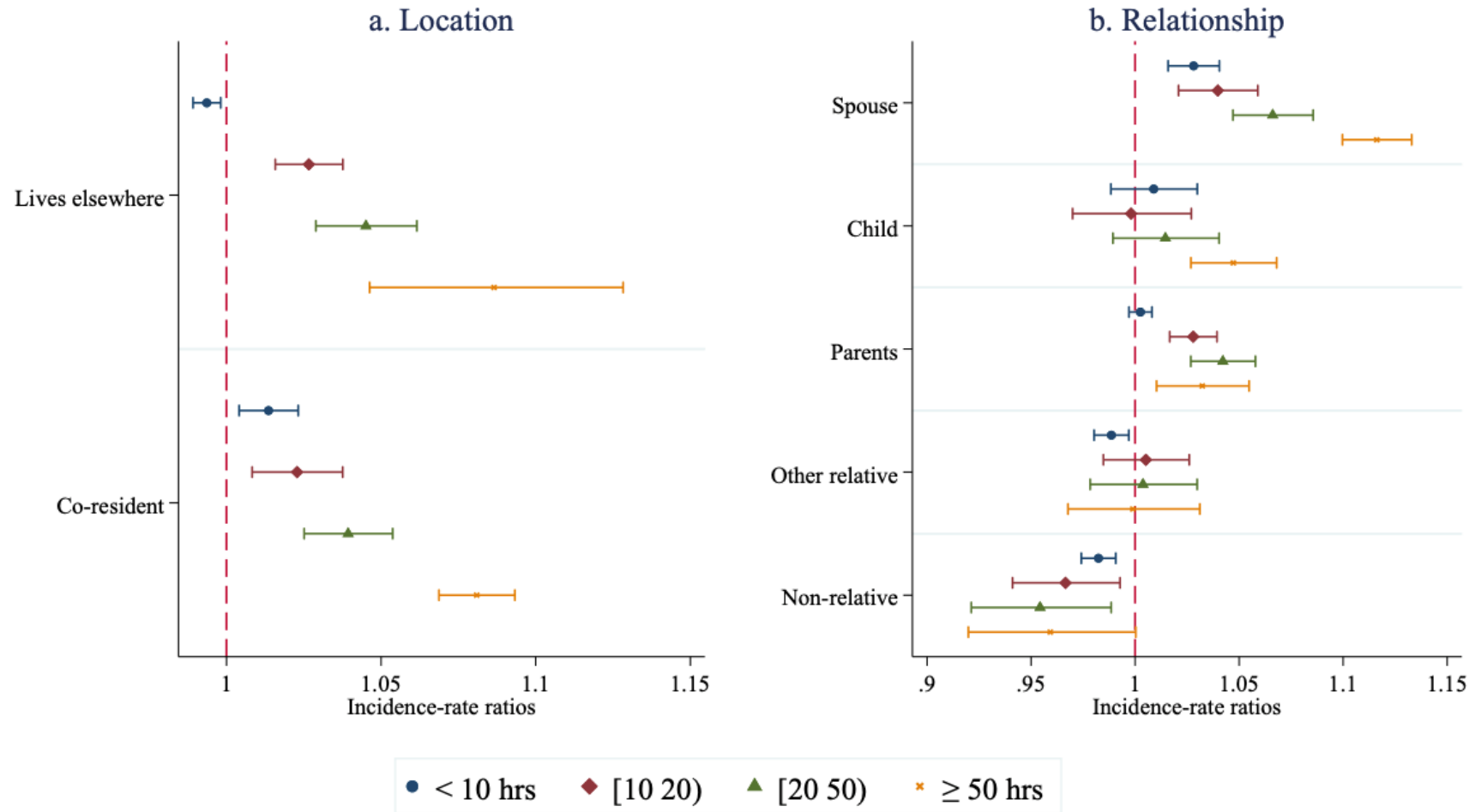


**Figure 2: Wellbeing and caring intensity by location of care provision**



**Note:** The error bars indicate the 95% confidence interval. The incidence-rate ratios are estimated with a fixed-effects Poisson model controlling for Education attainment, age, marital status, disability, financial and employment status, and year dummies. Full results are given in Table A1 in the Appendix.

**Table 4: Wellbeing and caring by location and care-care recipient location**



**Note:** The error bars indicate the 95% confidence interval. The incidence-rate ratios are estimated with a fixed-effects Poisson model controlling for Education attainment, age, marital status, disability, financial and employment status, and year dummies. Full results are given in Tables 3-4 in the Appendix.

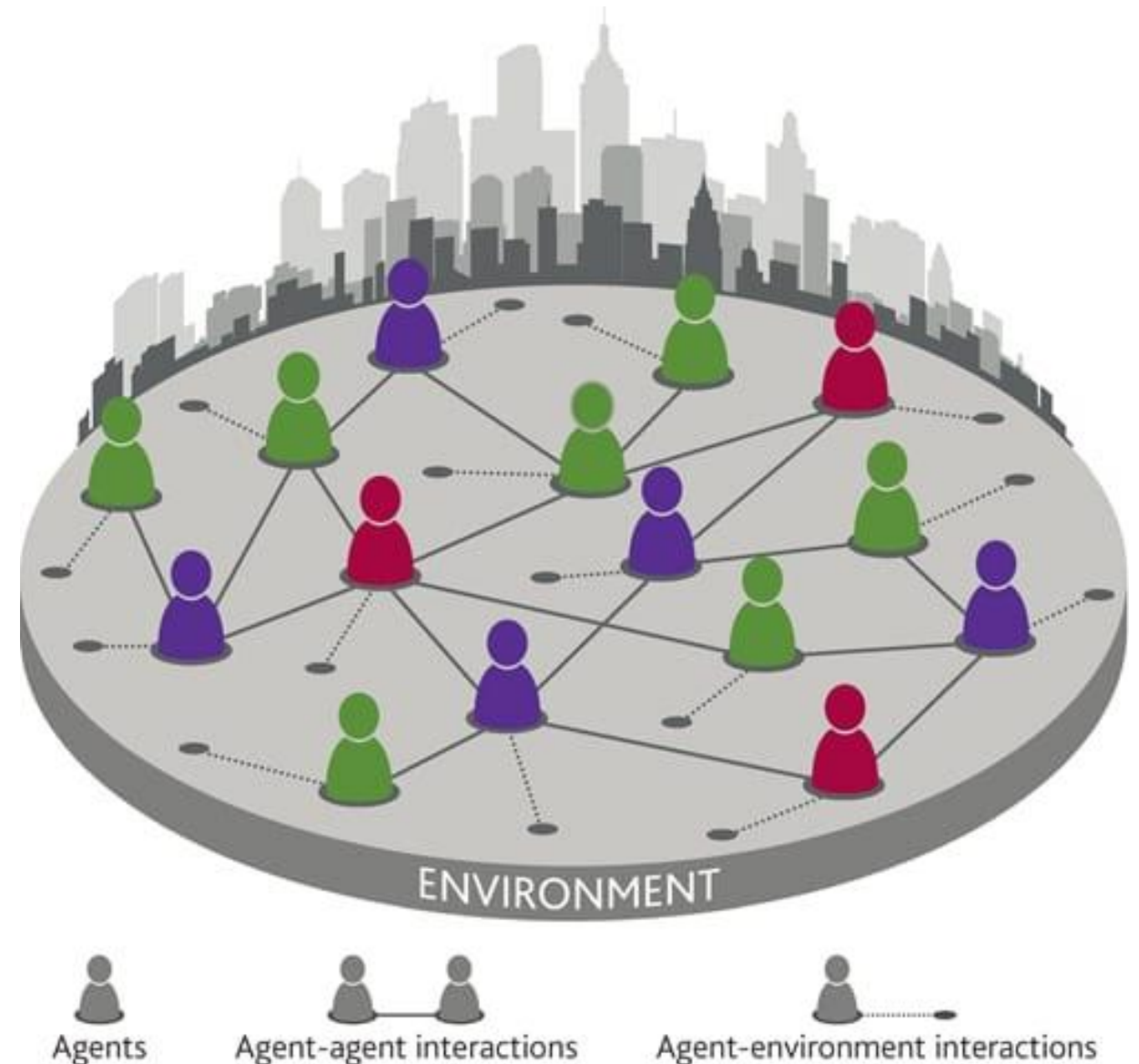
# Simulation and forecasting

## An Agent Based Model of (Health and Social) Care

- **Goal:** Develop a robust approach to forecast and analyse the impact of policy change.
- **Key Idea:** Build a replica of real society, with 'agents' endowed with heterogenous preferences, technologies, care needs, and care support.
- Synthesis of multiple forms qualitative and quantitative knowledge
- **Accessibility:** Open Access code libraries in Python.
- **Capacity Building:** prototyping and grant application in progress.
- **Engagement:** The ABM will be linked to a public facing dashboard.
- **Outputs:** The ABM then powers multiple different papers
  - For example: 'What happens if Carer's Allowance is increased or decreased?'
  - A tool for policy makers to understand care and caring



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# Predictive Analytics – urgent and non-urgent care pathways

- Technology enabled integrated multi-sector data (Hampshire County Council and Sheffield City Council).
- A scoping exercise to examine the potential for computational analysis, in conjunction with major TEC providers,
- Computational analysis of linked council data
  - In-home sensor and ‘alerts’ data
  - socio-demographic information
  - Predicting the demand for urgent care in real-time.