

# Substitution between informal and formal social care among the older population in England

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#### Introduction

- The demand for care both in and out of the home will increase as the older population grows
  - A crucial policy issue is therefore to think about how long-term care expenditures can be reduced
- We examine whether the receipt of informal care at a given point in time reduces the use of future formal care
  - Use ELSA waves 1-5 given consistency of questions relating to receipt of assistance
  - Focus on the non-institutionalised population aged 65 and above
- Contributes to an existing economics literature on substitution:
  - Examines substitution over time (existing studies look at cross-section)
  - First study to focus on England

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### Empirical specification

We estimate the following specification:

$$\triangle y_{t,t+1} = \beta X_t + \gamma \triangle Z_t + \theta I_t + \nu_t \tag{1}$$

- where y<sub>t,t+1</sub> takes the value of 1 if individual begins receiving assistance between waves t and t+1 (no individuals receive assistance in t)
- X<sub>it</sub> captures baseline demographic, socioeconomic and medical characteristics (e.g. age, gender, family structure, wealth, ADLs etc)
- $\triangle Z_{it}$  captures changes in certain characteristics:
  - Change in partner status, new health diagnoses
- $I_{it}$  is a dummy variable for the receipt of informal care in wave t
  - We are interested in  $\theta$ , the impact of informal care receipt on the probability of receiving formal assistance in the next interview

### Instrumenting for informal care receipt

- We might be concerned that individuals who receive both formal and informal care have higher unobservable need for care than individuals who receive only informal care
  - $\, \bullet \,$  This would cause upward bias in the estimate of  $\theta$
  - Motivates using an instrument for receipt of informal care, using data on the availability of informal carers in the family
- For a valid instrument, we need to find a factor which:
  - Changes the likelihood of receiving informal care
  - Has no direct impact on the likelihood of receiving formal care
- ${\ensuremath{\, \bullet }}$  We use whether the respondent has a daughter(s) as an instrument
  - In line with existing work (Charles and Sevak, 2005; Bonsang, 2009)
- Presence of children may be directly related to receipt of formal care (e.g. someone pays for care or navigates the system), but gender should be independent of this

## Summary of results

- The results indicate that individuals who receive informal care in wave t are less likely to report receiving assistance in wave t+1
  - Small positive coefficient (not statistically significant) in OLS results
  - This becomes negative and statistically significant in IV results
- Results differ by the type of formal care examined:
  - The effect is strongest for privately-funded care (coefficient near 1)
  - Substitution between informal and publicly-funded assistance is weaker (but still statistically significant)
- Suggests there is some scope for reducing public expenditures on formal care, but types of care are not perfect substitutes
- Current results only examine whether individuals receive any formal care
  - Next step is to use info in waves 6 and 7 to examine substitution in the intensity (hours) of different types of care



#### Comments and suggestions welcome

