Is extending eligibility for Adult Social Care better than investing more in existing users in England?

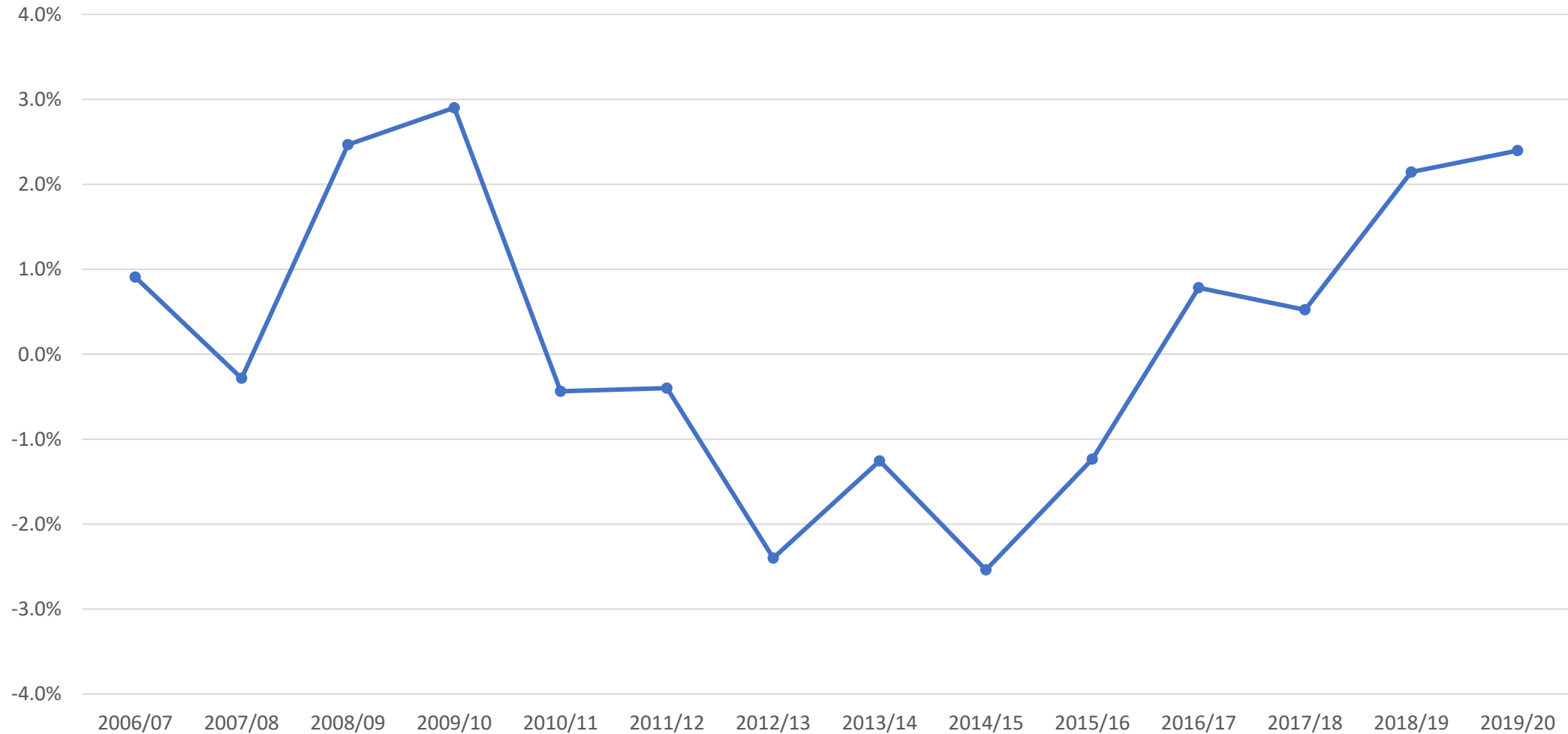Longo F.*   Claxton K.   Lomas J.   Martin S.

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Social Care Research in NIHR PRU: Webinar 1
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A focus on Adult Social Care expenditure in England

Real Growth Rate in Publicly-Funded Adult Social Care Expenditure in England

Source: NHS Digital

Research question

- In September 2021, the UK Government announced an investment of £5.4 billion in Adult Social Care (ASC) in England

- One of the key aims of this plan was to extend the eligibility for ASC services

- Does extending eligibility for ASC services provide better value for money?

- A possible trade-off is about investing more in existing or new users

Public ASC in England

- ASC aims to improve quality of life through various types of services

- There are 152 local authorities providing ASC directly or through other providers

- Eligibility for ASC services depend on need and finances
  - New plans extend upper limit from £23K to £100K

- ASC is funded using revenues from local taxes (e.g. council tax) and central grants

Existing Studies

- Forder et al. (2018 HEc) focus on public and private community-based social care services and find a beneficial effect with diminishing returns
  - On average, 35% of total ASC expenditure across LAs

- Longo et al. (2021 HEc) investigates the effect of total ASC expenditure on existing eligible users
  - Cross-sectional survey and administrative data in 2017/18
  - We find a beneficial CRQoL-effect of publicly-funded ASC expenditure (0.4% of the average CRQoL)

Empirical approach in Longo et al. (2021 HEc)

- Instrumental variable approach:

$$CRQoL_{ij} = \mu_1 + \beta_1 \, expenditure_j^{public} + \delta_1' g_j + \theta_1' X_{ij} + \alpha_{1j} + \varepsilon_{1ij} \quad (1)$$

- To predict expenditure we exploit variation in council tax base across local authorities

- Eligibility levels are captured by dummies indicating the type of local authority (Forder et al., 2015 HEc)
  - Counties, metropolitan districts, unitary authority, London boroughs

Empirical approach in new study

- Analysis extended to the more recent years 2018/19 and 2019/20

$$CRQoL_{ij} = \mu_2 + \beta_2 \; expenditure_j^{public} + \gamma_2 \left(expenditure_j^{public} \right)^2 + \delta_2 G_j + \theta_2' Z_{ij} + \alpha_{2j} + \varepsilon_{2ij} \quad (2)$$

- We account for the non-linearity between CRQoL and ASC expenditure

- We control for eligibility levels directly

- We predict expenditure and eligibility using variation in council tax base and local authority type

Key results

| Variable	Longo et al. (2021)			New model (2)		
	2017/18	2018/19	2019/20	2017/18	2018/19	2019/20
Public adult social care expenditure per user	0.003*** (0.001)	0.002** (0.001)	0.002** (0.001)	0.006*** (0.002)	0.005*** (0.002)	0.009*** (0.003)
Public adult social care expenditure per user squared				-0.0004** (0.0002)	-0.0003* (0.0002)	-0.0004** (0.0002)
Observations	52,602	55,570	50,441	52,602	55,570	50,441
F-test of expenditure and its square's p-value	-	-	-	0.007	0.004	0.002
First stage Kleibergen-Paap rk Wald F statistic	434.3	398.6	408.9	17.7	10.9	7.4
Over-identification test's p-value	0.595	0.715	0.777	0.191	0.871	0.334

Longo et al. (2021)=econometric specification (1) proposed by Longo et al. (2021), New model=novel econometric specification (2) proposed in this paper.

The dependent variable is the user care-related quality of life measured at the individual level. In the new model (2), we subtract the mean from public adult social care expenditure per user to interpret its estimated coefficient as the marginal effect at mean expenditure rather than at zero. Results on control variables are not reported in this table. The Instrumental variables are the council tax base per user for the model proposed by Longo et al. (2020), and the council tax base per user and local authority type dummies for the novel model (2). In the model by Longo et al. (2020), the over-identification test is run by using the business rates tax base per user and the Area Cost Adjustment index as additional instruments. All regressions are weighted using the survey weight. Results on control variables are not reported. Standard errors are clustered within LAs and strata, and they are reported in parenthesis.

*** = p-value<0.01, ** = p-value<0.05, * = p-value<0.10

Illustration of marginal and non-marginal effects

2017/18
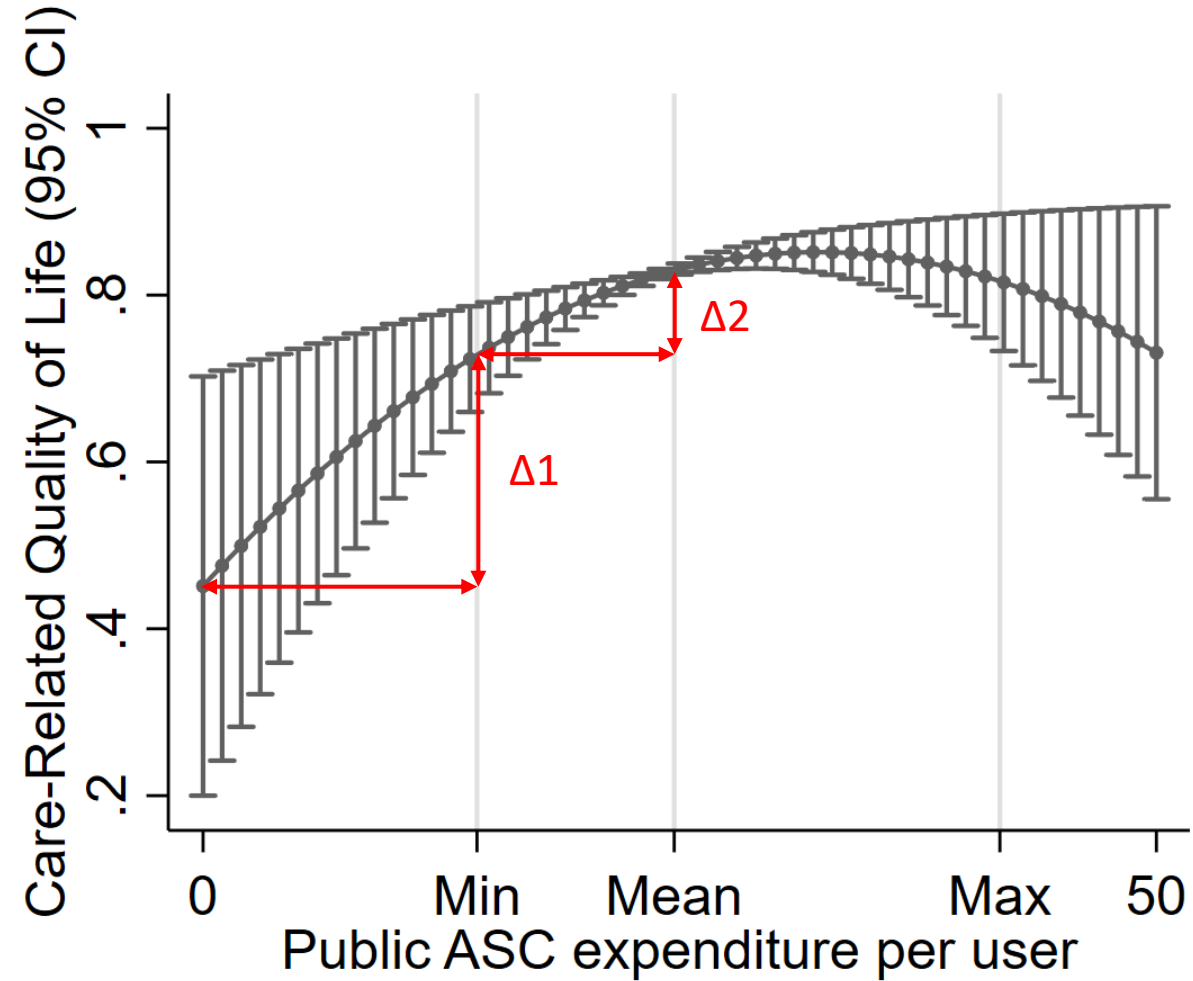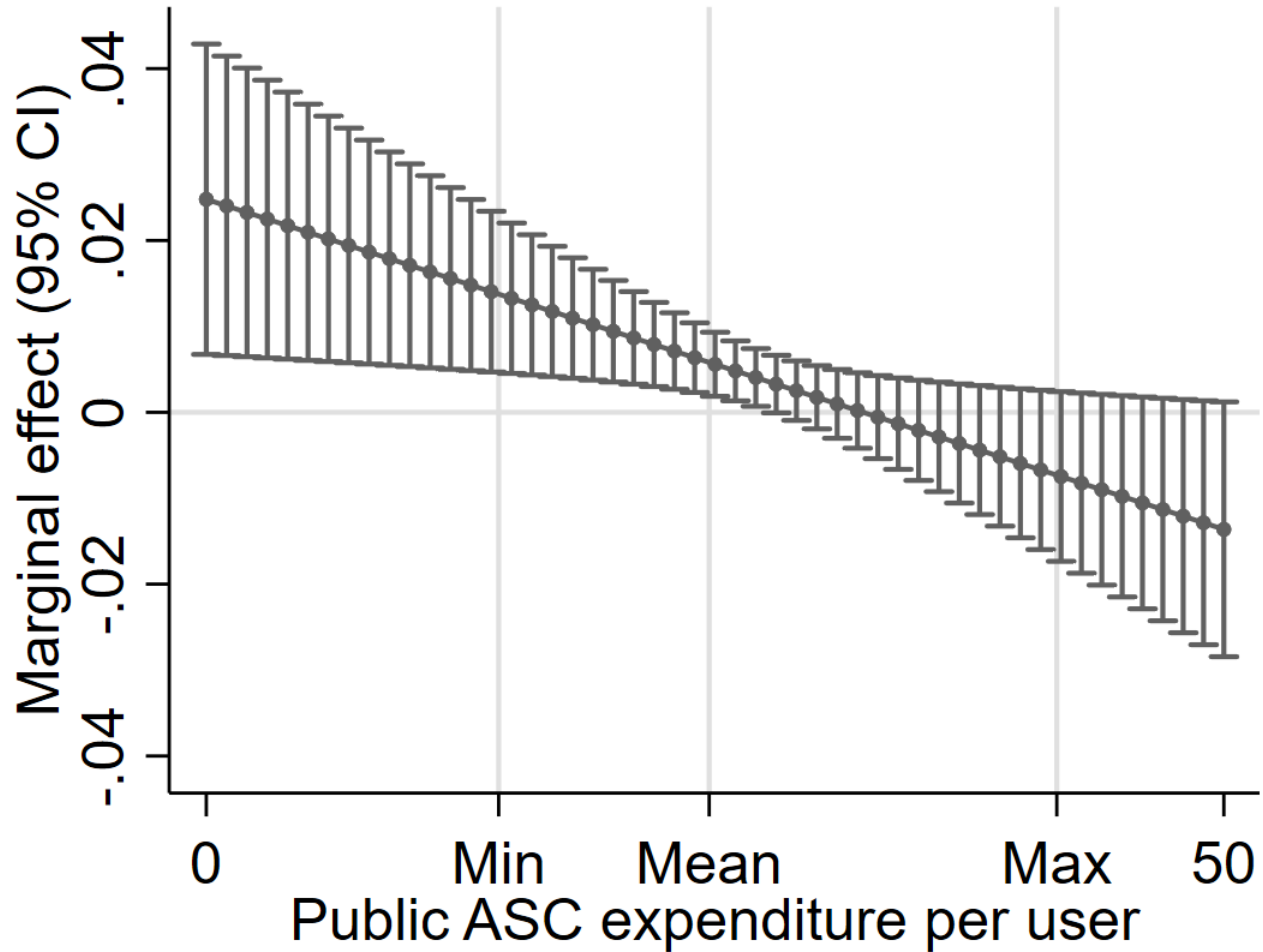
Estimates of marginal and non-marginal effects

Public adult social care expenditure per user	2017/18			
	Value	Marginal effect	Non-marginal effect on new users	Non-marginal effect on existing users
No expenditure	0.0	0.025***	-	-
At the min value	14.4	0.014***	0.277*** Δ1	-
At the mean	25.0	0.006***	0.380***	0.103*** Δ2
At the max value	41.8	-0.007	0.366***	-0.014

- Spending £14,400 for a new user generates 0.277 SC-QALY: each SC-QALY gained costs £52,000

- Spending £10,600 for an existing user generates 0.103 SC-QALY: each SC-QALY gained costs £130,000

Discussion

- Publicly-funded ASC expenditure generates CRQoL gains for both new and existing users

- Larger net effect on new users because they further capacity to benefit or publicly-funded care is more effective

- Extending eligibility is likely to be more cost-effective than spending more money on existing users

- Policy decisions that increase eligibility for ASC might generate a substantial gain in user CRQoL

Limitations and Future Research

- Our findings refer only to users
  - Of long-term support
  - With the highest level of need

- Estimates for newly eligible users are obtained by extrapolation as data on non-users is not available

- Future research should investigate
  - The effects of ASC on carers, NHS, and local economy
  - Panel data methods to test the results' robustness

Thank you

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