Health consequences of higher Retirement Age in the UK

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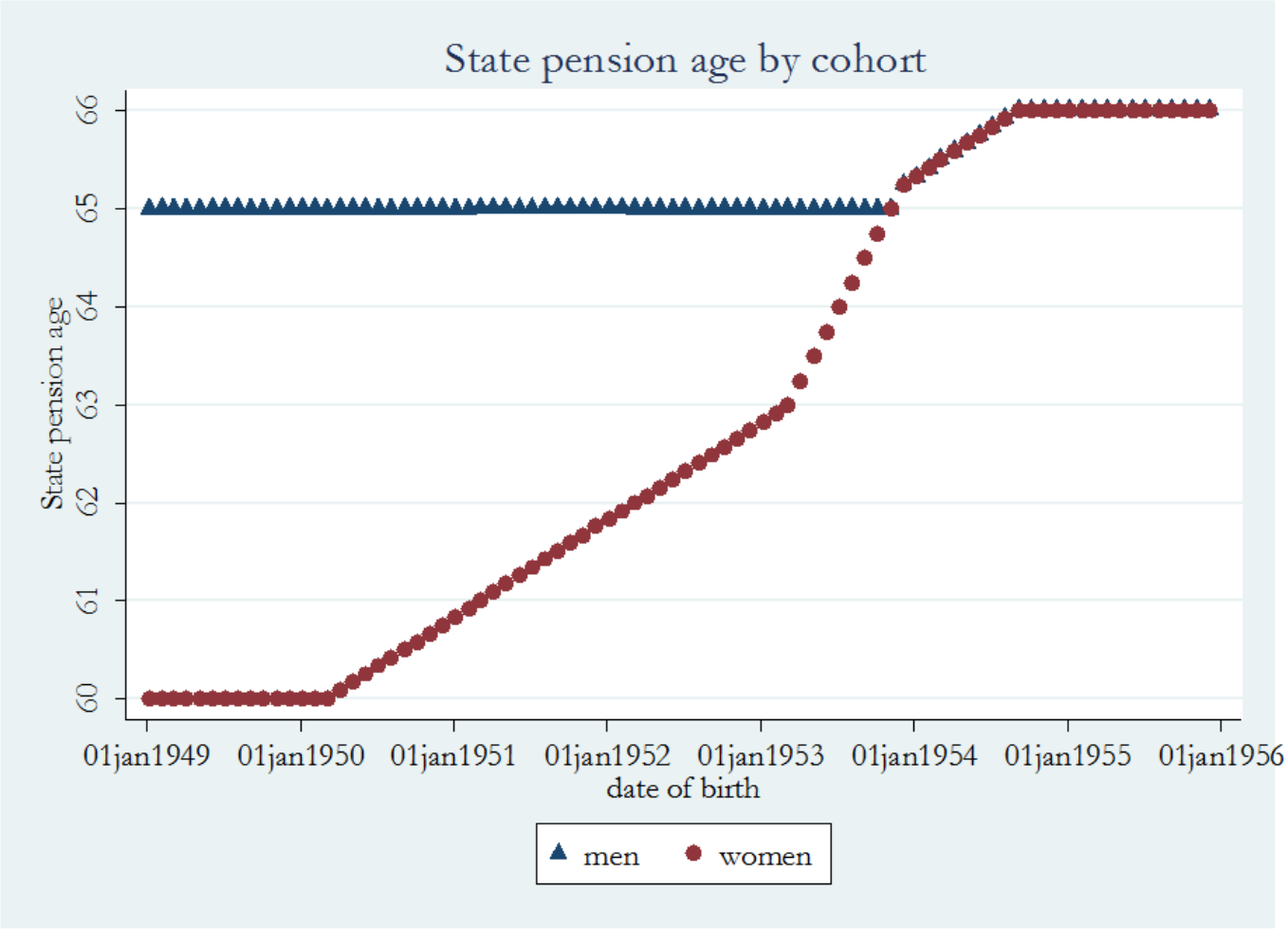
Increase in UK State Pension Age (SPA)

- Pension Act 1995 (also 2011 and 2014)
- Affected women born on or after April 1950
- SPA increases since May 2010



Research questions and Data

1. **Does a policy that postpone retirement age have an impact on the health of women?**
2. **Is the length of the extension associated with stronger effects?**

- Data from Understanding Society, six waves 2009-2015
  - Socioeconomic, employment and health information
  - We cannot observe women turning SPA before the reform (would require data for 2008 and earlier)
- Health measures:
  - **SF-12 (mental, physical)**, between 0 (bad) and 100 (good)
    - Eight dimensions: physical/social function, role physical/mental, pain, mental health, energy, health perception
  - **GHQ-12 psychological status**, between 0 (good) and 36 (bad)
    - Inability to carry out normal functions, appearance of new and distressing psychological phenomena

Retirement, emotions and health

- Retirement can be both good and bad for health
  - Conflicting empirical evidence
    - Positive effect: Coe & Zamarro (2011), Eibich (2015) and Kolodziej & García-Gómez (2017)
    - Negative effect: Bonsang et al. (2012), Behncke (2012), Mazzonna and Peracchi (2012, 2016, but job heterogeneity)
- Emotional reactions to reforms may matter more than the shift itself (Lazarus 1991)
  - Shock in the (anticipated) disengagement process: lack of agency, goal obstruction, anger, worry. (De Grip et al. 2011)
  - Heterogeneity by job/SES (Van Solinge &Henkens '17)
- Our focus: impact of the policy as such (reduced-form model)

The Telegraph 2:00PM BST 18 May 2011

'How could I foresee such a discriminatory bombshell?'

These changes are unfair because the women affected are not being given enough time to make alternative plans.

20 SEPTEMBER 2016 • 7:00AM

theguardian

Minister: no money for women who lost out on state pensions, and 'that's that'

Anne Keen, a founder of the Waspi campaign, expected to receive her pension in May 2013 but learned only in 2012 – some 13 months earlier – that her pension wouldn't start to be paid until March 2017.

State pension changes 'smash' women's expectations, MPs warn

Some women, who had expected to receive their pension at 60, have only recently discovered that their retirements have been postponed by up to six years.

A one-year difference in age can result in a three-and-a-half-year difference in the SPA, and some of the affected women say they will effectively suffer a loss of up to £30,000 as a result of having to wait longer for their state pension. It has emerged that the government did not write to any women affected by the rise in the pension age for nearly 14 years after the law was passed in 1995.

Meryl Streep

Born in 1949

When turning **60 (in July 2009)** she is ABOVE SPA and can retire

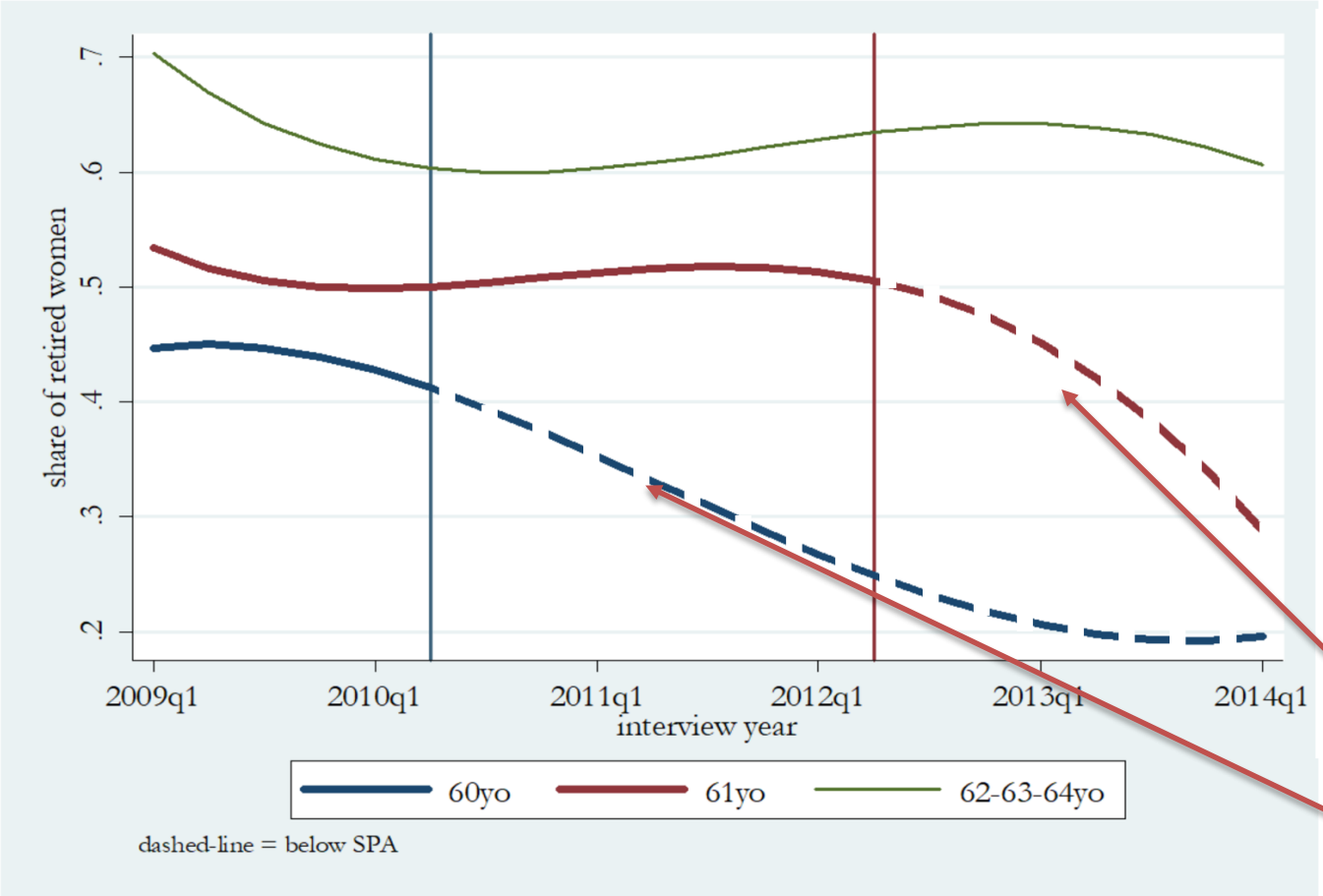
Isabelle Huppert

Born in 1953

When turning 60 (2013) she is BELOW SPA qnd cannot retire. She can retire when turning **63 (2016)**

"First stage": effect on retirement rates

- We look at age groups in different (quarter) years
- Being under SPA significantly decreases retirement rates

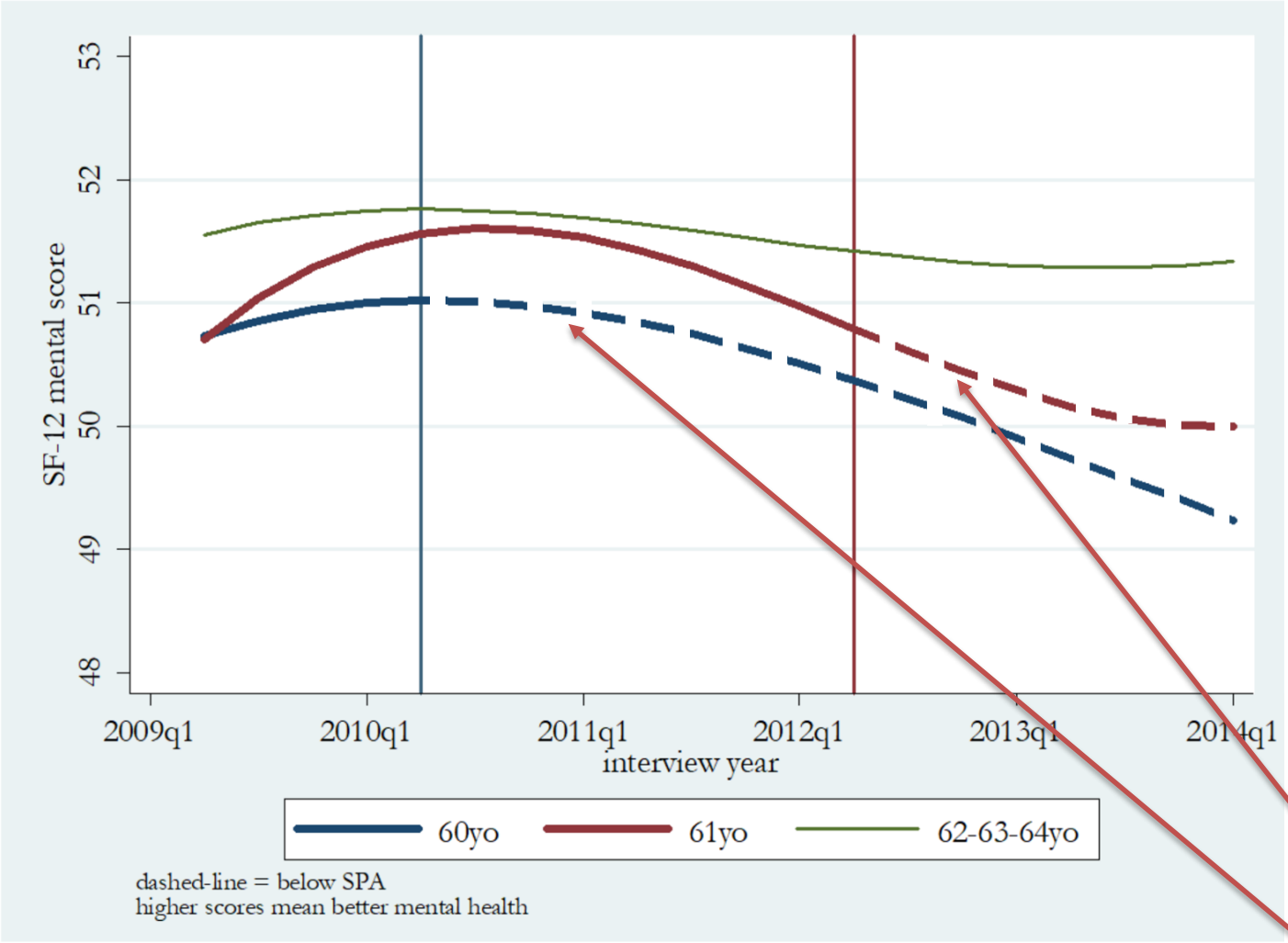


Also:

- working rates increase but do not fully compensate
- higher rates of sick / home-caring

BELOW SPA

Descriptives: effect on SF-12 mental



Also:

- Detrimental effect on GHQ index
- No effect for SF-12 physical health index

BELOW SPA

Estimation strategy/1

- Women of same age may have different SPA status, depending on date of birth and time of the interview
  - above/below SPA at time of interview
  - SPA extension varies from zero months to 5 years
- We build two individual-level variables:
  - Being above/below SPA when interviewed.
    - Individual & time specific.
  - Extent of SPA extension
    - Increases with month-of-birth only for those born after 03/1950

Estimation strategy/2

- We exploit non-linearities of SPA-status, and compare the health status of women of similar age but interviewed at different times. Reduced form to evaluate policy effect.
  - Main selection: women aged 60-64 between 2009 and 2015, having worked during their life (no proxy interv.) → 8409 observations.
- OLS Linear regression (Staubli, 2013; Cribbs, 2013)

$$y_{ict} = \alpha + \beta I(age < SPA)_{ict} + \gamma_i + \delta_c + \theta_t + X'_{ict}\xi + \varepsilon_{ictA}$$

Health outcomes

Age-in-quarters fixed effects

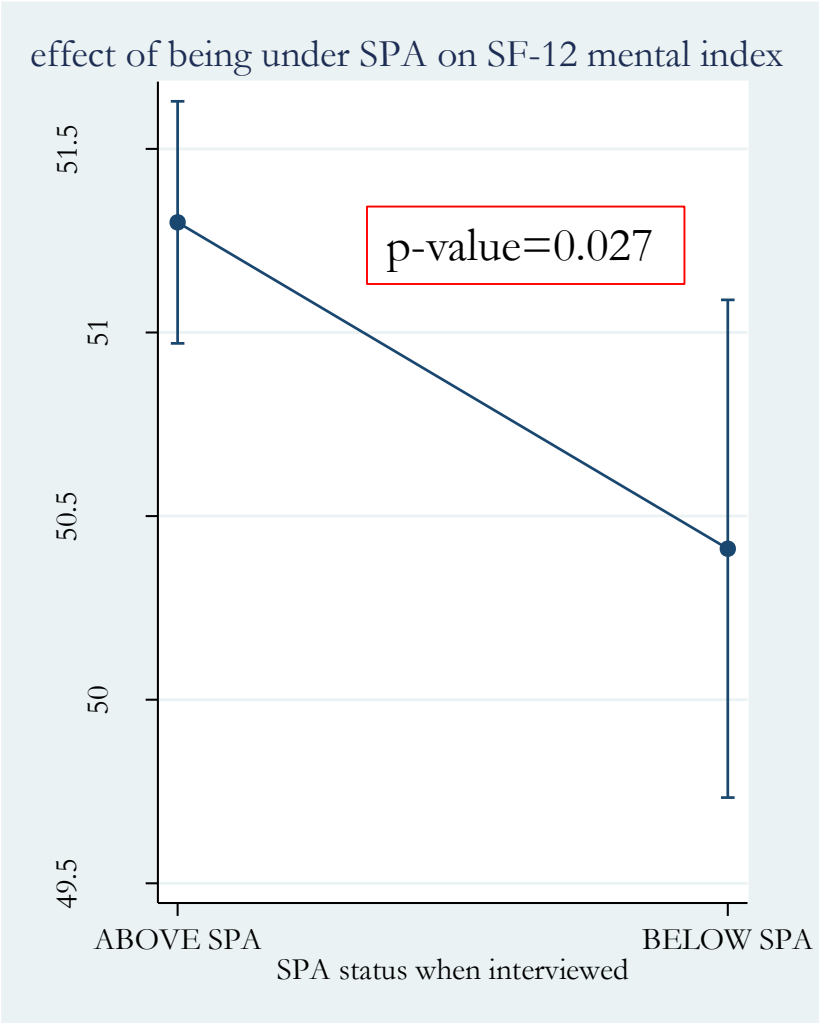
Variable for month-of-birth

Year-in-quarters fixed effects

  - **X** controls for education, marital status, (last) job-category
  - Second model has "shift in SPA" (in months) as main indep variable
  - Interacting main indep. variables with job-category
  - Standard errors clustered at month-of-birth

Detrimental effect of being under SPA

- Worse status for SF-12 (only mental) and GHQ



	GHQ	SF-12 Mental	SF-12 physical
Being under SPA	**0.519****	**-0.874*****	-0.399
	(0.242)	*(0.392)*	*(0.591)*
Obs.	8409	8409	8409

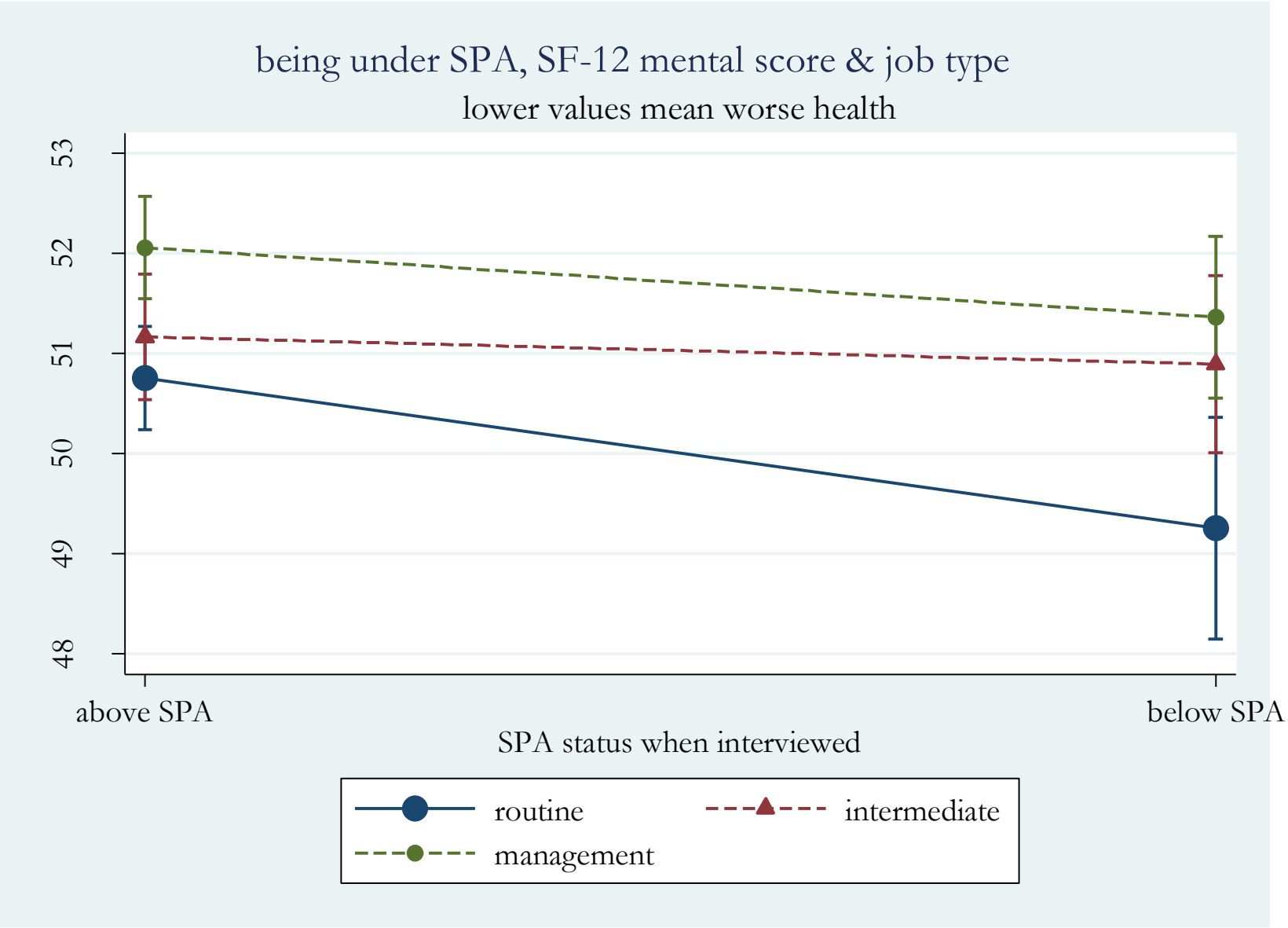
(fixed effects for age ad years, in quarters, plus controlling for month of birth and other covariates; s.e. clustered by month-of-birth)

Being under-SPA interacted with job type

	GHQ	SF-12 Mental	SF-12 physical
Being under SPA (for routine workers)	**1.127*** **	**-1.502** **	**-2.106*** **
	0.394	*0.592*	*0.799*
Routine job (ref.)			
Intermediate	0.018	0.412	0.527
	0.233	*0.407*	*0.706*
manager	-0.726***	1.302***	2.367***
	0.215	*0.351*	*0.627*
Intermediate * being under SPA	**-1.143*** **	**1.231***	**2.659** **
	0.42	*0.679*	*1.023*
Manager * being under SPA	**-0.816** **	0.807	**2.681** **
	0.382	*0.666*	*1.028*
Obs.	8409	8409	8409

(fixed effects for age ad years, in quarters, plus controlling for month of birth and other covariates; s.e. clustered by month-of-birth)

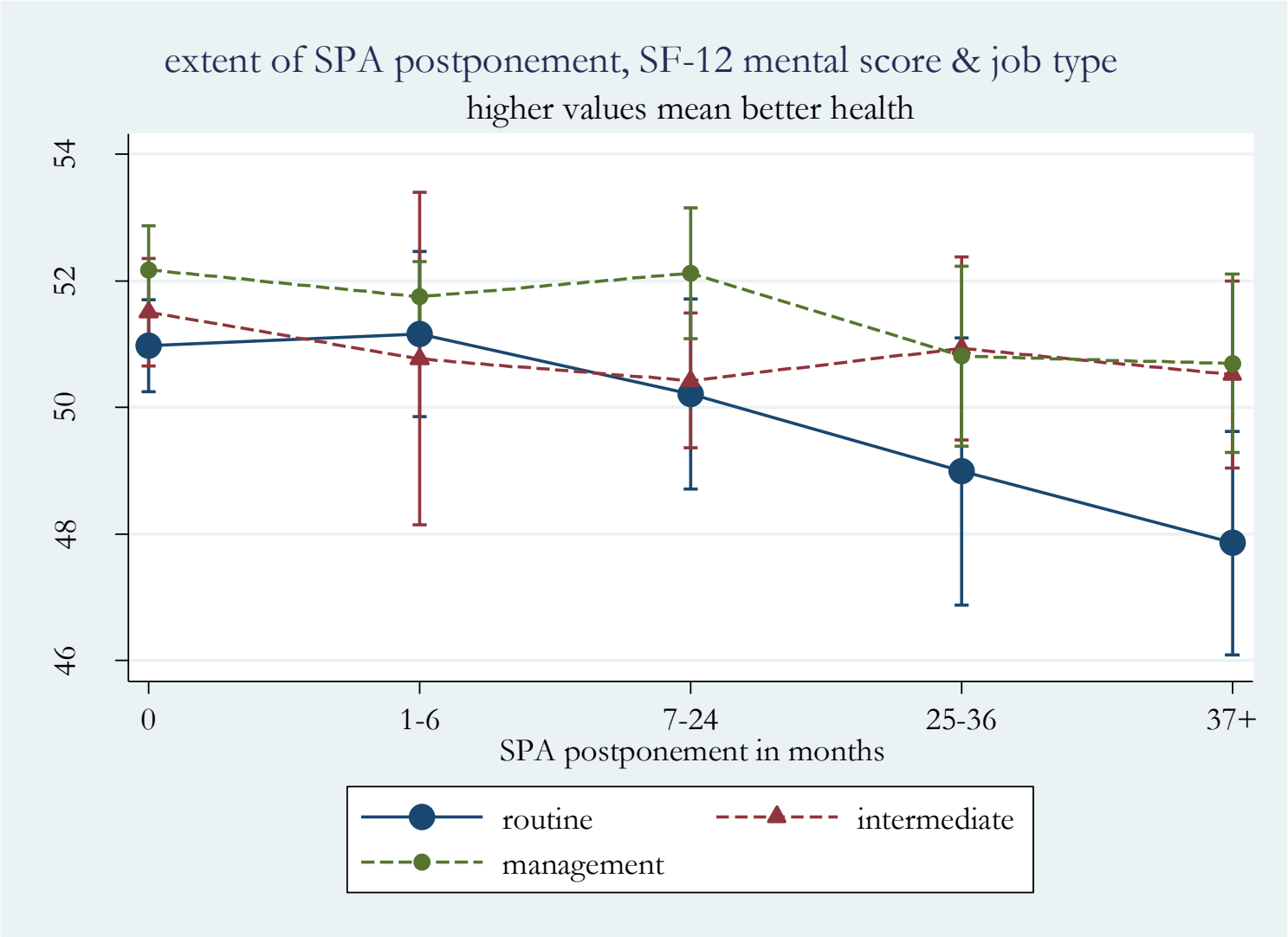
- Detrimental effect is heavier for routine workers



Extent of SPA-shift interacted with job

	GHQ	SF-12 Mental	SF-12 physical
SPA shift in months (for routine workers)	**0.033*** **	**-0.042** **	**-0.073*** **
	0.011	*0.018*	*0.026*
Routine job (ref.)			
Intermediate	0.026	0.345	0.438
	0.24	*0.429*	*0.737*
manager	-0.685***	1.247***	2.151***
	0.226	*0.373*	*0.656*
Intermediate * shift in months	**-0.026** **	**0.034***	**0.067** **
	0.011	*0.018*	*0.028*
Manager * shift in months	**-0.022** **	0.023	**0.078*** **
	0.01	*0.016*	*0.026*
Obs.	8409	8409	8409

- In a graph (using categorical variable for months-of-postponement in SPA)



Robustness tests

- Sample selection:
  - Narrower: only 60-62 (5055 obs.), so that for every age-group there is a "control" and a "treated" group
  - Larger: including also 59yo
- Alternative measures of GHQ (12-valued scale, caseness)
- Clustering standard errors at individual level
- Dropping individuals who have not worked since 1990

Discussion

- The UK pension reform led to an increase in working careers but a negative effect on mental health
  - longer postponement (born '53 or later) → worsening outcomes
  - Routine workers: mental and physical health decline
- Will the effect last or is it only short-lived?
- Implications for care-giving
- Is it the 'news' of the postponement?
  - Were women given advance notice?
    - Cridland report: people need 10-year notice
- Is it because of the postponement itself?
  - Support may be needed for those who find it difficult to continue to work

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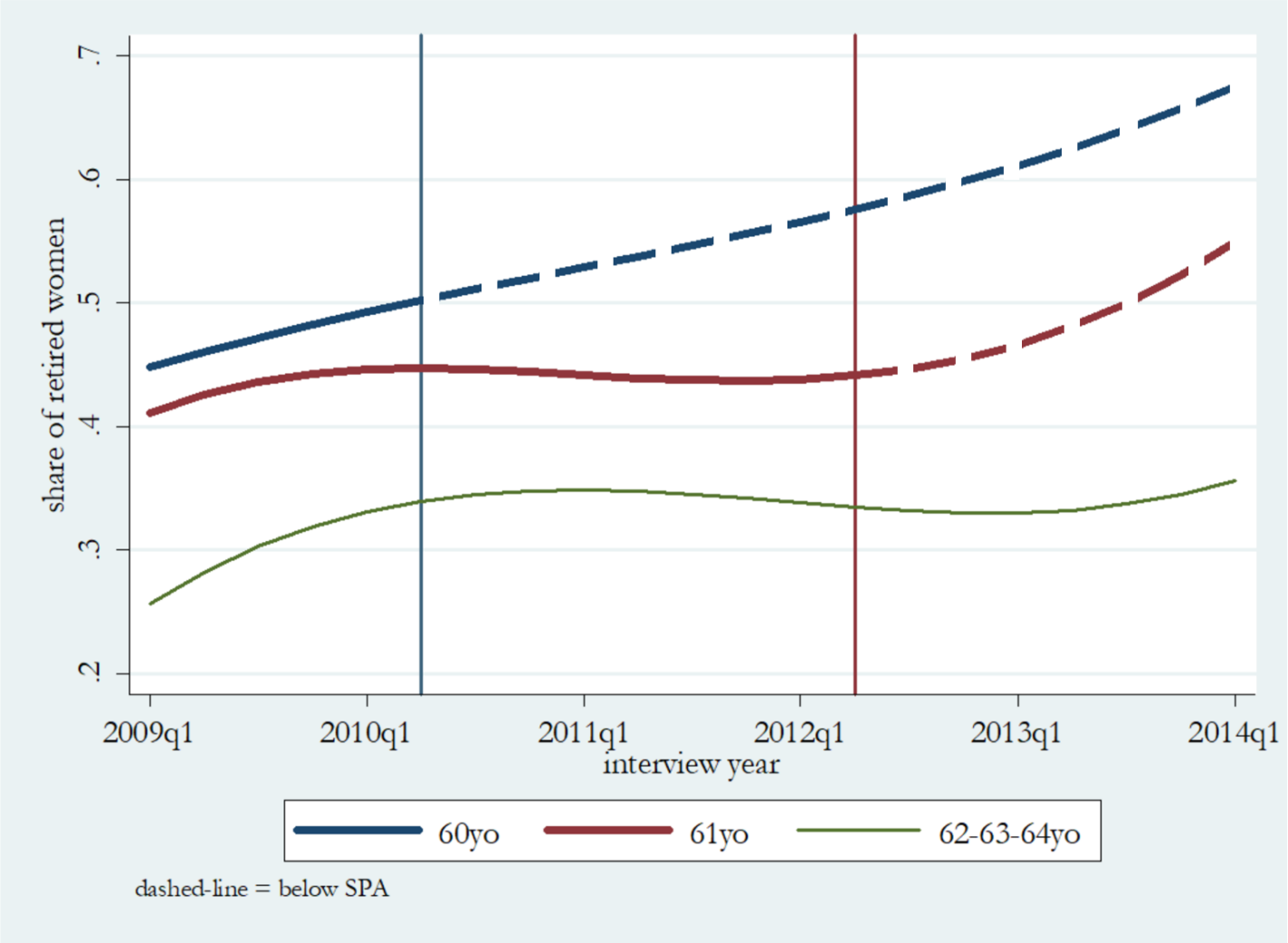
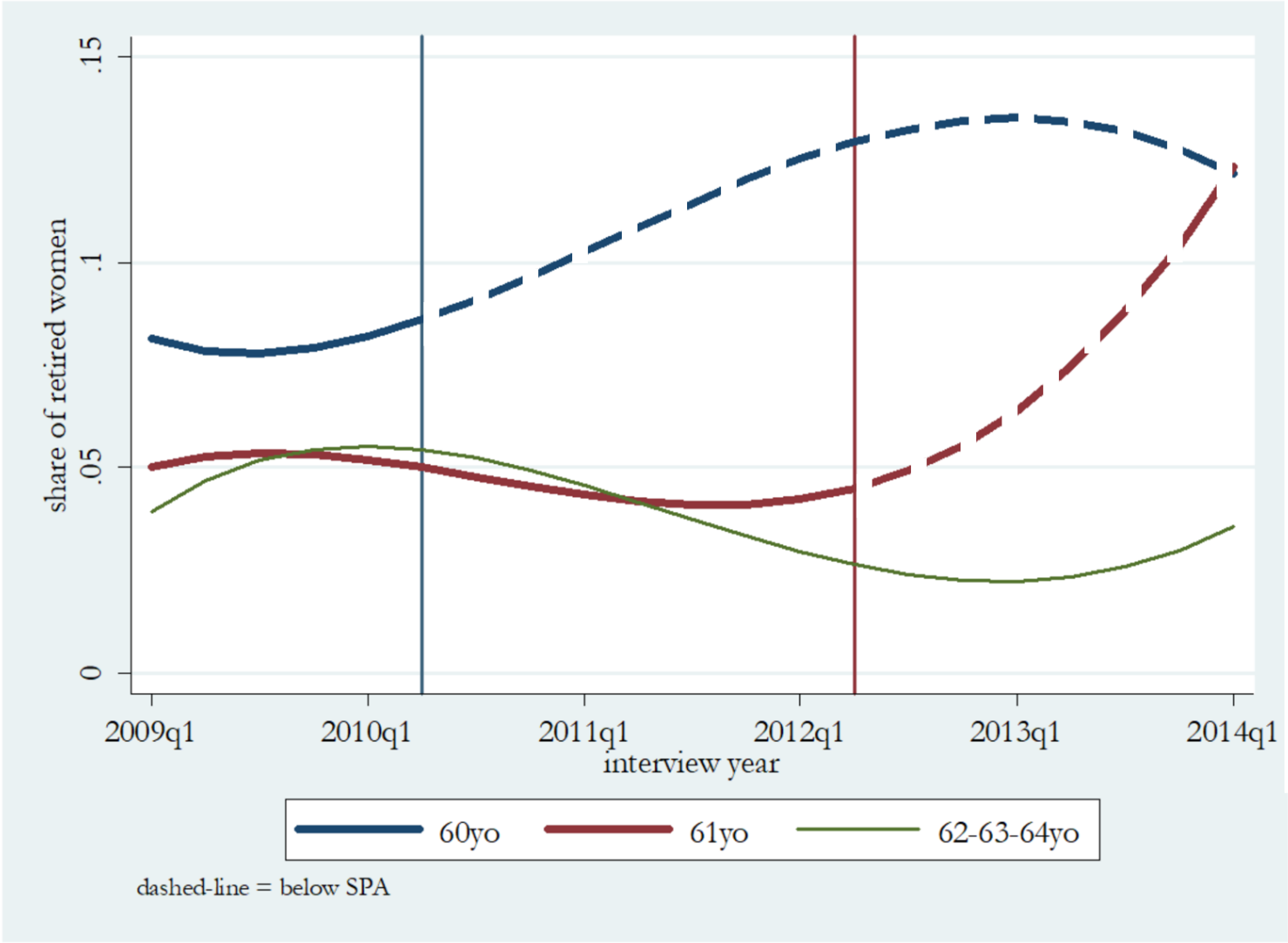
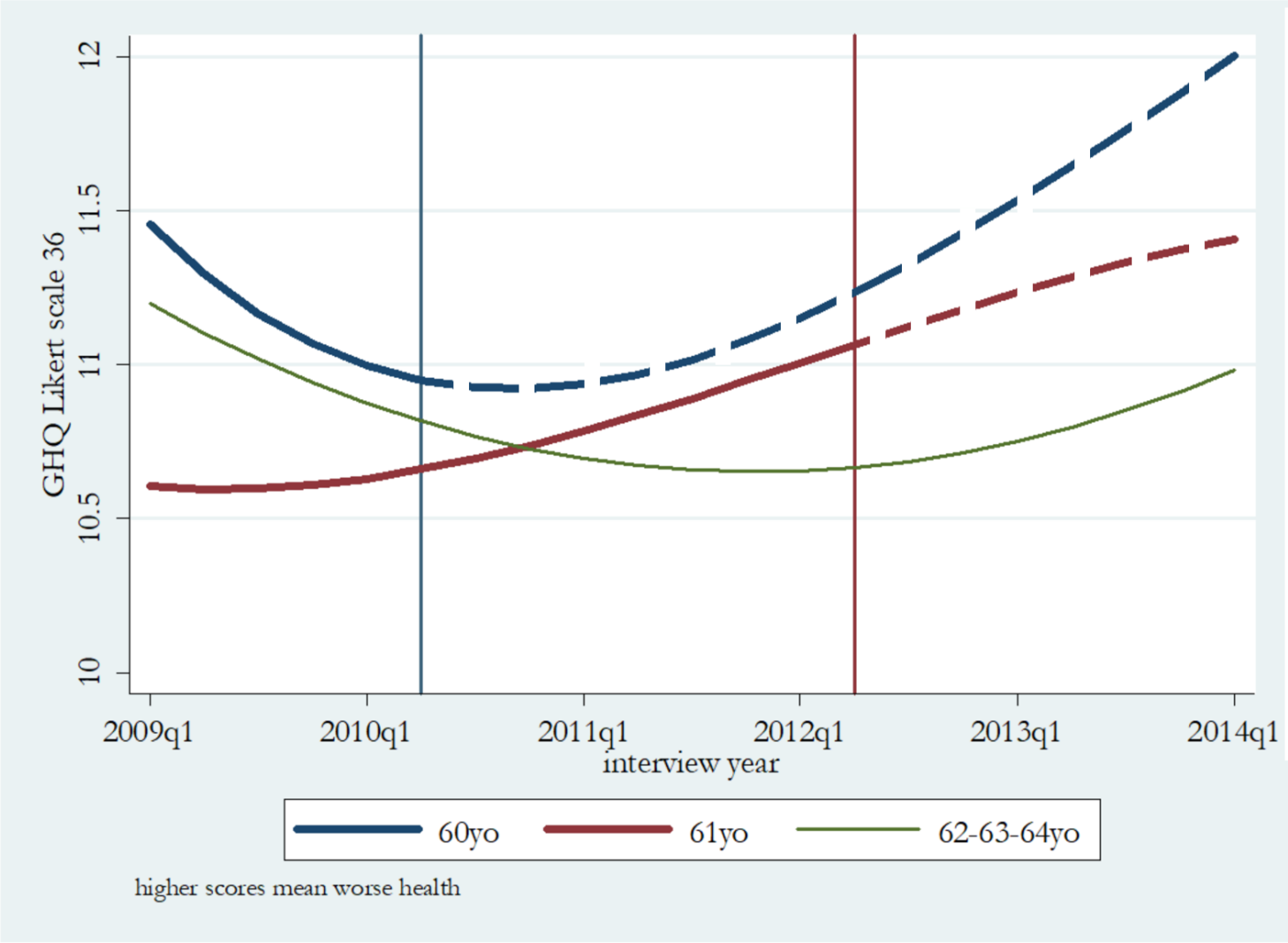
Descriptives: effect of working rates



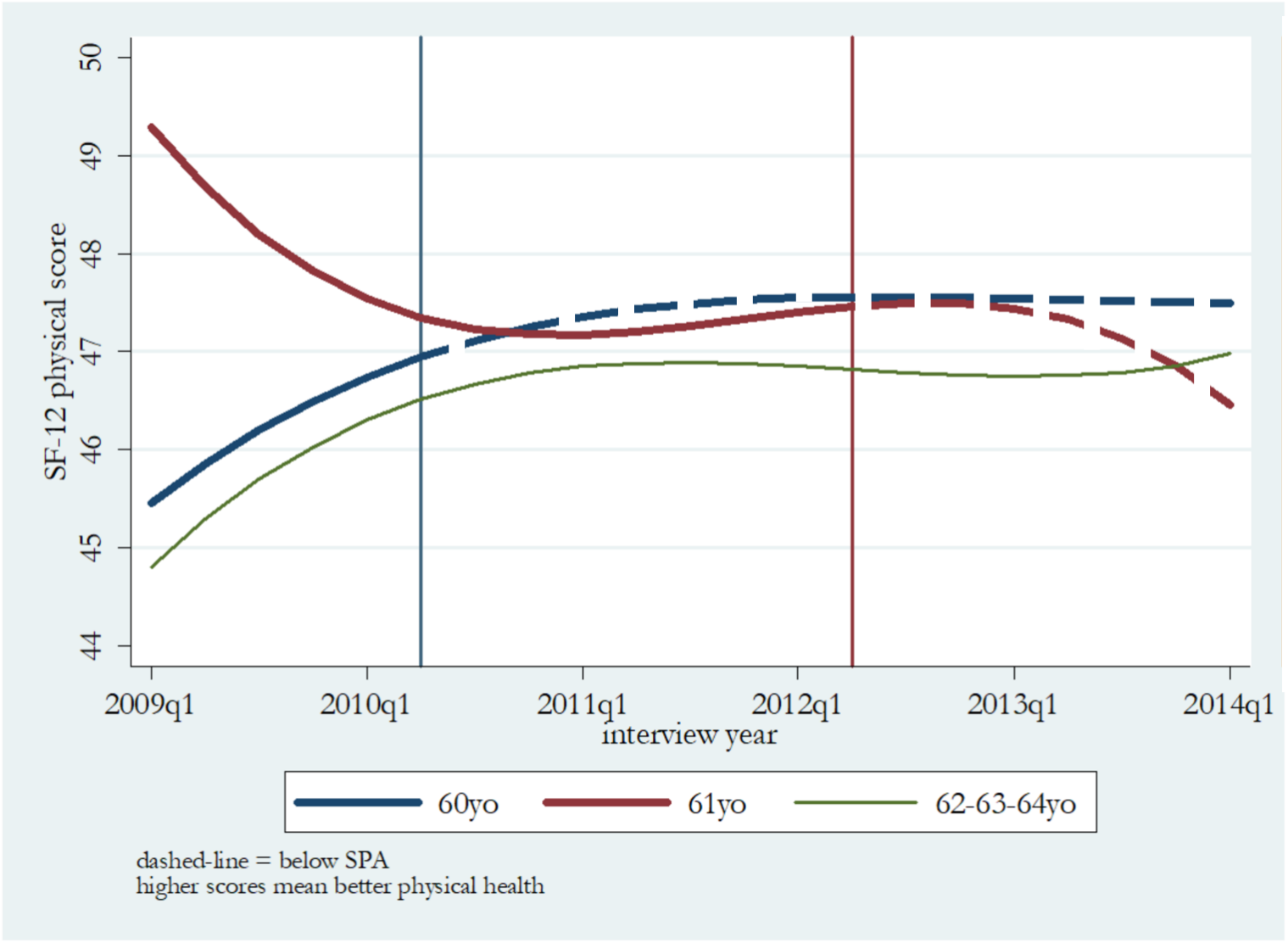
Descriptives: sick/homecaring rates



Descriptives: GHQ depression index



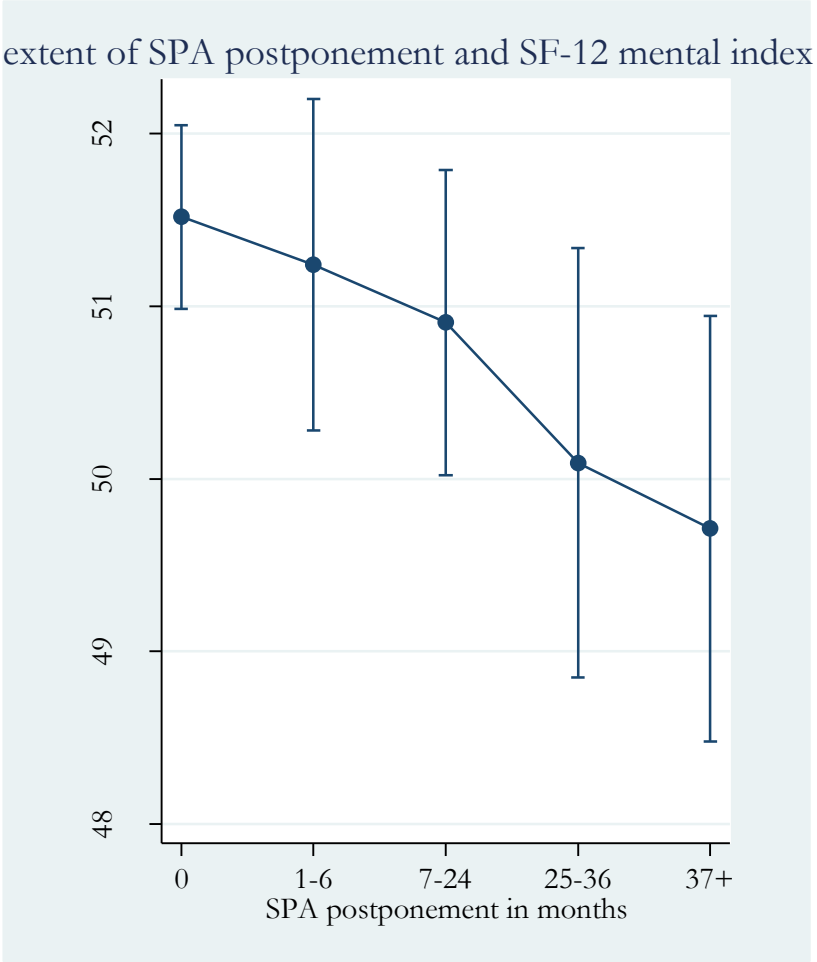
Descriptives: SF-12 physical index



Sample statistics

Variable	Average
Age	62.5
Married or living as couple	70.2%
Widowed / Divorced / Separated	25.3%
Single	4.5%
Number of children	1.4
having some qualification (GCSE or higher)	78.9%
Self-assessed occupational status	
Employed	41%
Unemployed	1%
Retired	52.1%
Family or home carers	3.2%
Long-term sick or disabled	2.7
Socio-economic Classification	
Routine occupation	38.9%
Intermediate occupation	28.3%
Higher occupation	32.8
Health measures	
SF-12 physical	46.8
SF-12 mental	51.1
GHQ-12 (36 scale)	10.9
GHQ-12 (12 scale)	1.6
% above GHQ 4+ threshold	17%
Number of observations	8409

Detrimental effect of longer SPA shift



	GHQ	SF-12 Mental	SF-12 physical
0 months (ref.)	-	-	-
0-6 months	0.189	-0.277	-0.172
	(0.297)	*(0.572)*	*(0.923)*
6-24 months	**0.589***	-0.612	-0.318
	(0.334)	*(0.588)*	*(0.779)*
24-36 months	**0.857***	**-1.425***	-0.691
	(0.46)	*(0.778)*	*(1.119)*
36+ months	**1.241****	**-1.806****	-1.322
	(0.508)	*(0.813)*	*(1.377)*
Obs.	8409	8409	8409

(fixed effects for age ad years, in quarters, plus controlling for month of birth and other covariates; s.e. clustered by month-of-birth)