

Investigation of the impact of question change on estimates of general health status and Healthy Life Expectancy in the United Kingdom

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Aim

- What is the likely impact of adopting the harmonised EU-SILC general health question upon UK estimates of healthy life expectancy (HLE)?

Background

Original general health question <i>'Over the last 12 months would you say your health has on the whole been...'</i>	Dichotomised definition
<i>Good?</i>	'Good' health
<i>Fairly good?</i>	
<i>Not good?</i>	'Not good' health

EU-SILC general health question <i>'How is your health in general? Is it...'</i>	Dichotomised definition
<i>Very good?</i>	'Good' health
<i>Good?</i>	
<i>Fair?</i>	'Not good' health
<i>Bad?</i>	
<i>Very bad?</i>	

Data for analysis

- Inclusion of both questions in the General Household (GHS) and Continuous Household (CHS) surveys in 2005 & 2006 enabled analysis with a reasonable sample size (40,000+ for UK)
- BUT
- Concurrent general health questions raises possibility of confounding by exposure and order effects

Analysis

1. Potential confounding assessed by comparing EU-SILC Q in GHS (England only) with Health Survey for England (HSE) in 2005-06
2. Straightforward comparison of Original and EU-SILC Q's in GHS/CHS 2005-06
3. Simulation of EU-SILC Q on historic general health and HLE estimates

Evidence for confounding?

	Response category	Per cent
EU-SILC (GHS England) <i>How is your health in general? Is it...</i>	Very good?	41.9*
	Good?	39.6*
	Fair?	13.6
	Bad?	3.9
	Very Bad?	0.9*
Dichotomised 'Good' health		81.5
Sample size n = 25,986		
HSE <i>How is your health in general? Would you say it was...</i>	Very good?	40.1*
	Good?	41.1*
	Fair?	13.9
	Bad?	3.7
	Very Bad?	1.1*
Dichotomised 'Good' health		81.2
Sample size n = 30,922		

- Differences are apparent at extremes – caused by males
- No difference once dichotomised
- Can't exclude confounding in GHS due to exposure or order effects
- Data appears suitable for comparison

Original vs. EU-SILC

Original <i>'Over the last 12 months would you say your health on the whole has been...'</i>	Response category	Per cent	Per cent reporting LLSI
	Good	64	5
	Fairly good	23	30
	Not good	12	77
Dichotomised 'Good' health		88	12
EU-SILC <i>'How is your health in general would you say it was...'</i>	Response category	Per cent	Per cent reporting LLSI
	Very Good	40	3
	Good	38	14
	Fair	14	54
	Bad	5	88
	Very bad	1	93
Dichotomised 'Good' health		79	8
Sample size n = 40,348			

- Dichotomised 'Good' health is worse under the EU-SILC general health question
- Rates of LLSI are lower for those in 'Good' health under the EU-SILC than the original question
- The EU-SILC Q appears a better indicator of functional health status

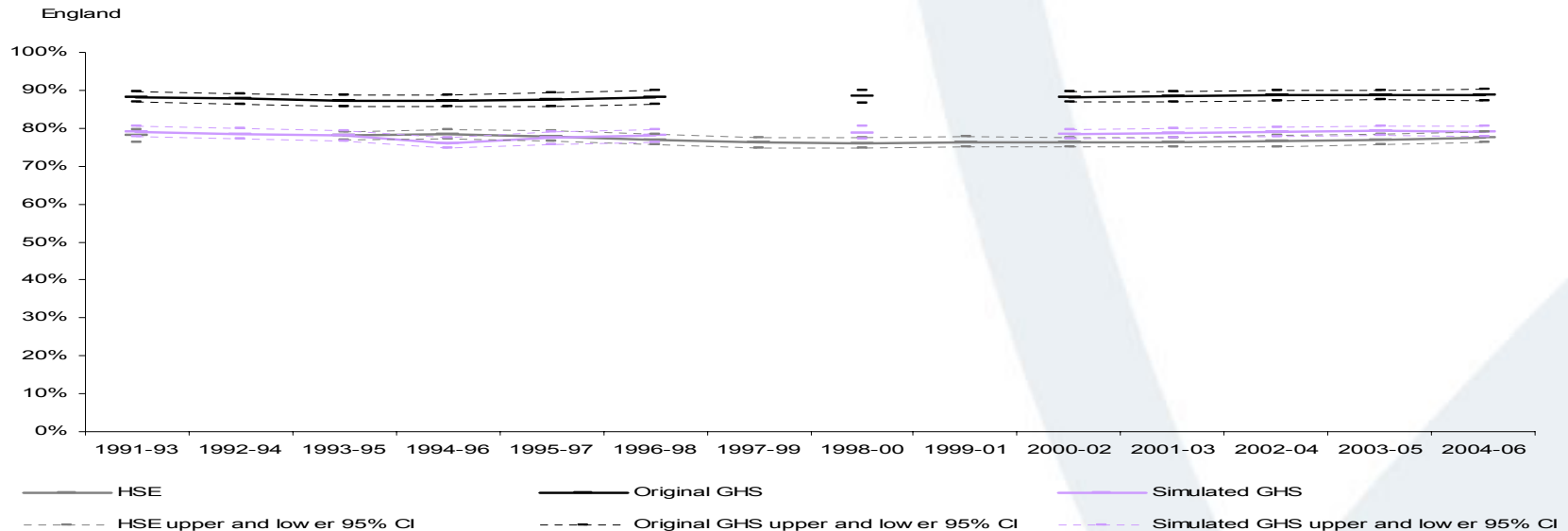
Original vs. EU-SILC translation

Response to Original general health question	Subsequent reporting of health in response to EU-SILC general health question				
	Very good	Good	Fair	Bad	Very bad
Good	60	39	2	0	0
Fairly good	8	54	37	1	0
Not good	2	9	41	40	9

- On the whole people reported better health in response to the EU-SILC question
- This translation, taking into account age, sex and HRP-NSSeC was used to develop an algorithm to simulate the EU-SILC question on historic data

Simulating EU-SILC general health

Figure 2. Age standardised proportion of adult males in 'Good' health, between 1991–93 to 2004–06



- 'Good' health in the adult population is around 11% lower in simulated compared to original estimates
- No difference between Simulation and HSE over this period validates modelling approach

Simulating EU-SILC HLE*

Great Britain	Year	Original HLE (years)	Proportion of life in 'Good' health	Simulated HLE (years)	Proportion of life in 'Good' health	Decrease (per cent)
Males at birth	2000-02	67	88	61	80	-10
	2004-06	68	89	61	80	-10
Males at 65	2000-02	12	75	9	59	-22
	2004-06	13	76	10	58	-23

* HLE estimates calculated using the Sullivan method.

Conclusions

- Prevalence of 'Good' health is lower under the EU-SILC than the original health question
- Definition of 'Good' health derived from EU-SILC question is a better discriminator of functional health status (LLSI)
- Simulated estimates of HLE were lower but the underlying trend of improvement over time was unaffected

Conclusions

- On average males at birth lose 7 years of 'Good' health; females lose 8 years
- At age 65, males lose 3 years and females 3.5 years in 'Good' health
- Adoption of the EU-SILC general health question will cause a significant discontinuity in UK estimates of HLE
- ONS UK estimates of HLE will be based exclusively on the EU-SILC general health question from the reporting period 2006-08

Thanks....

- Any Questions?