

Cognitive function in ELSA wave 2

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ELSA English Longitudinal
Study of Ageing



Why cognitive function matters

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- Cognitive function declines from its peak in young adulthood. This decline may impact work, financial planning, self-esteem and social relationships
- We need to know the determinants and consequences of cognitive impairment/decline and of maintained cognitive functioning



Cognitive function measures in ELSA

Memory

Self-reported memory

Time orientation

Word list learning: immediate and delayed recall

Prospective remembering

Executive/other cognitive function

Verbal fluency

Visual search: speed and accuracy

Basic skills

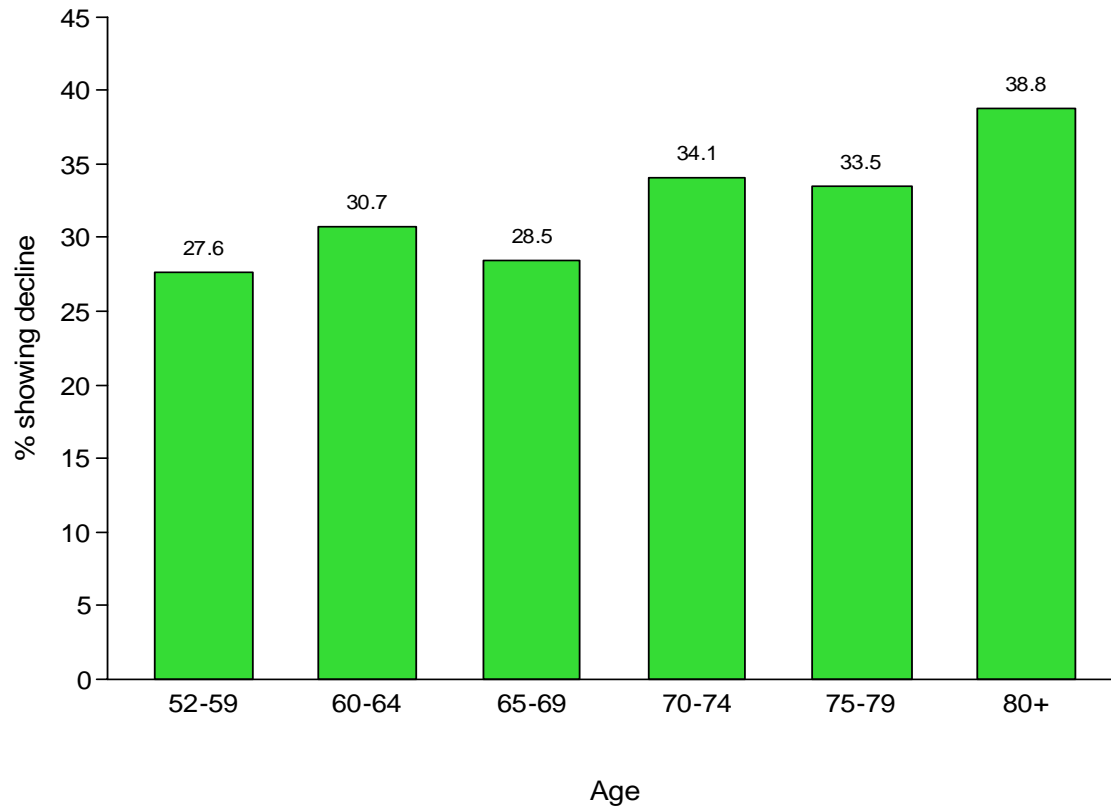
Numeracy (wave 1)

Literacy (wave 2)

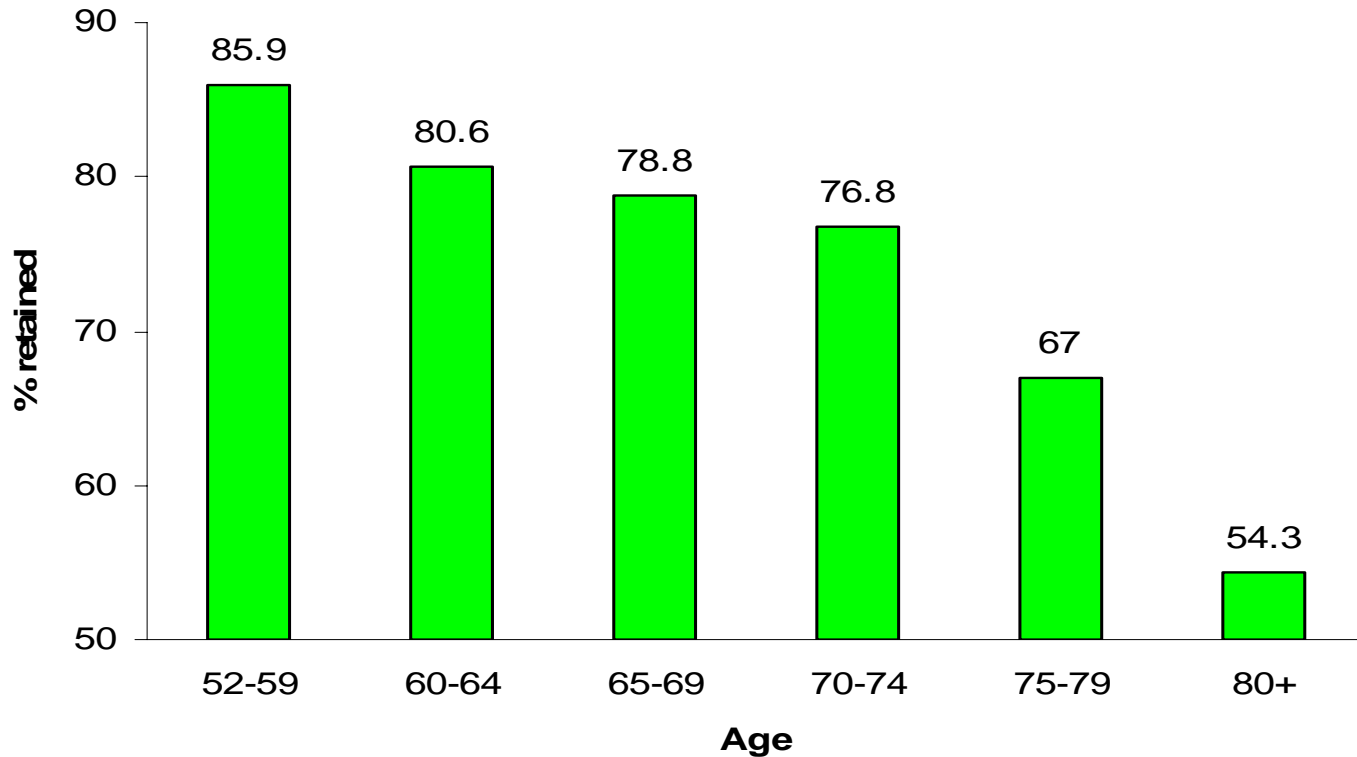
Change in self-reported memory

- One-third of total sample reported that their memory had got worse
- 38% drop in those reporting their memory as excellent
- 20% increase in those reporting their memory as poor
- Age differences were surprisingly small

Percent showing decline on memory index (>1 point) by age

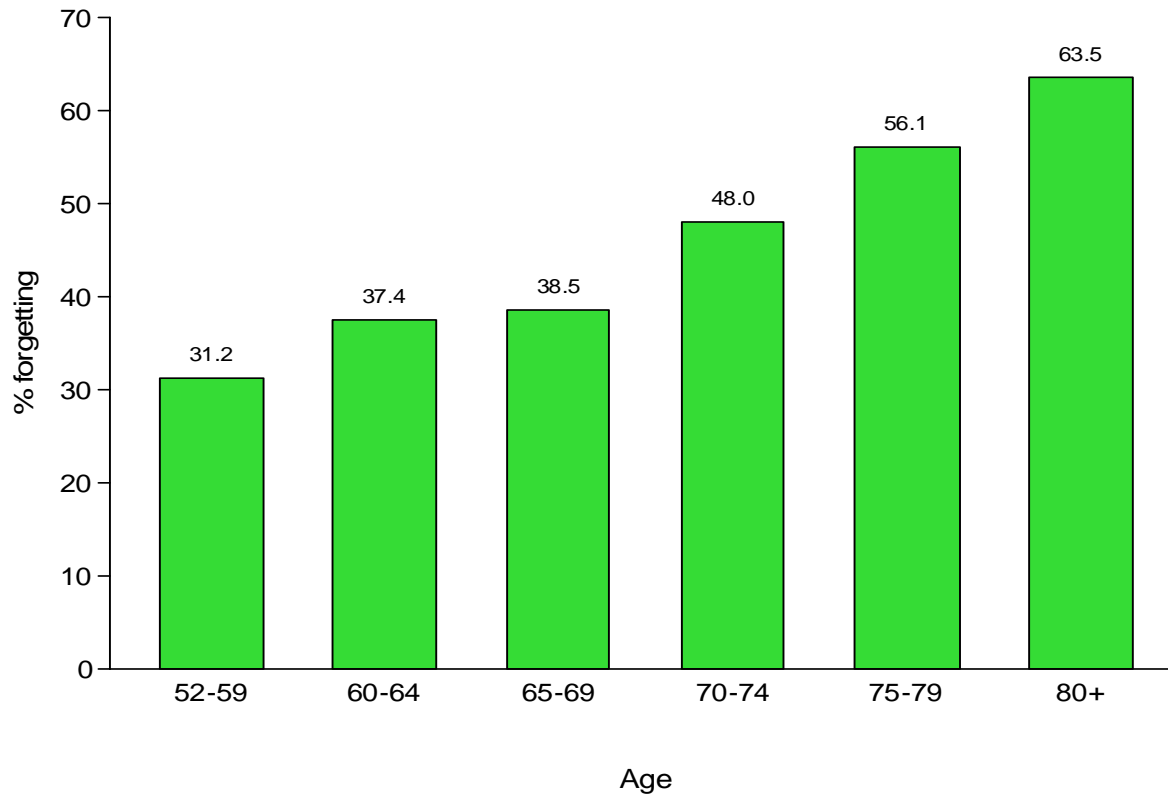


How much information is retained after a short delay?

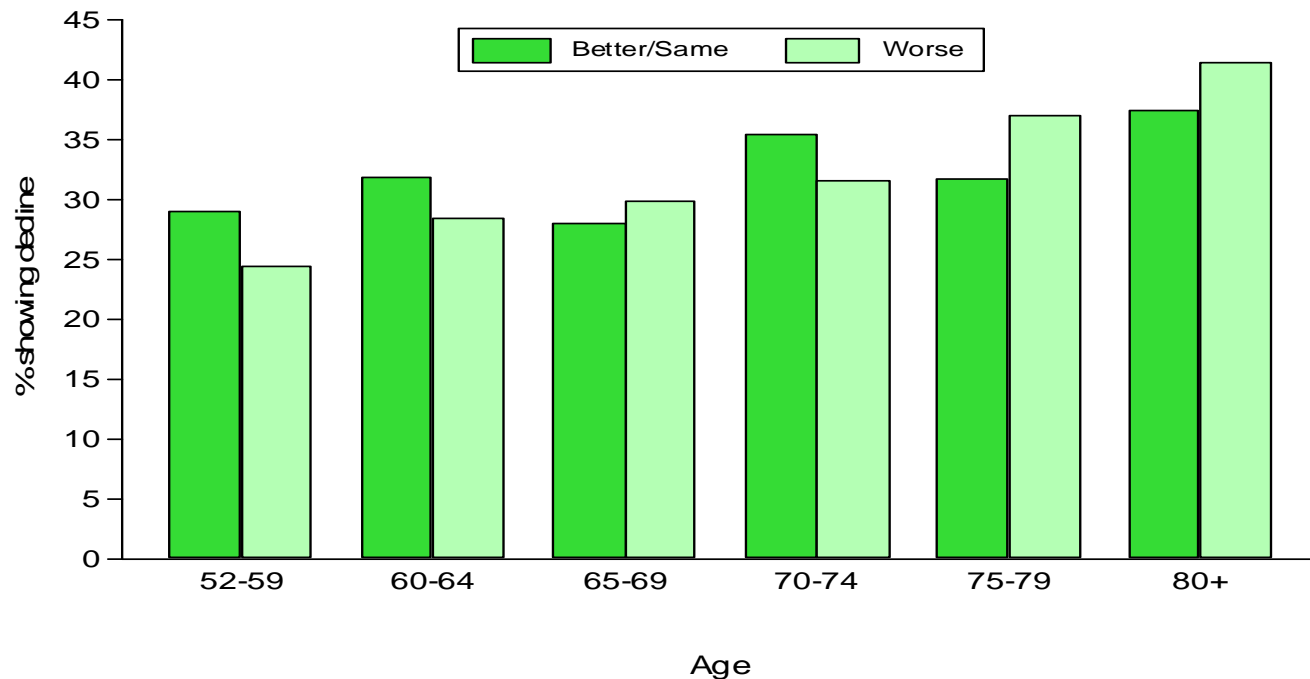


Severe age-related prospective memory impairment

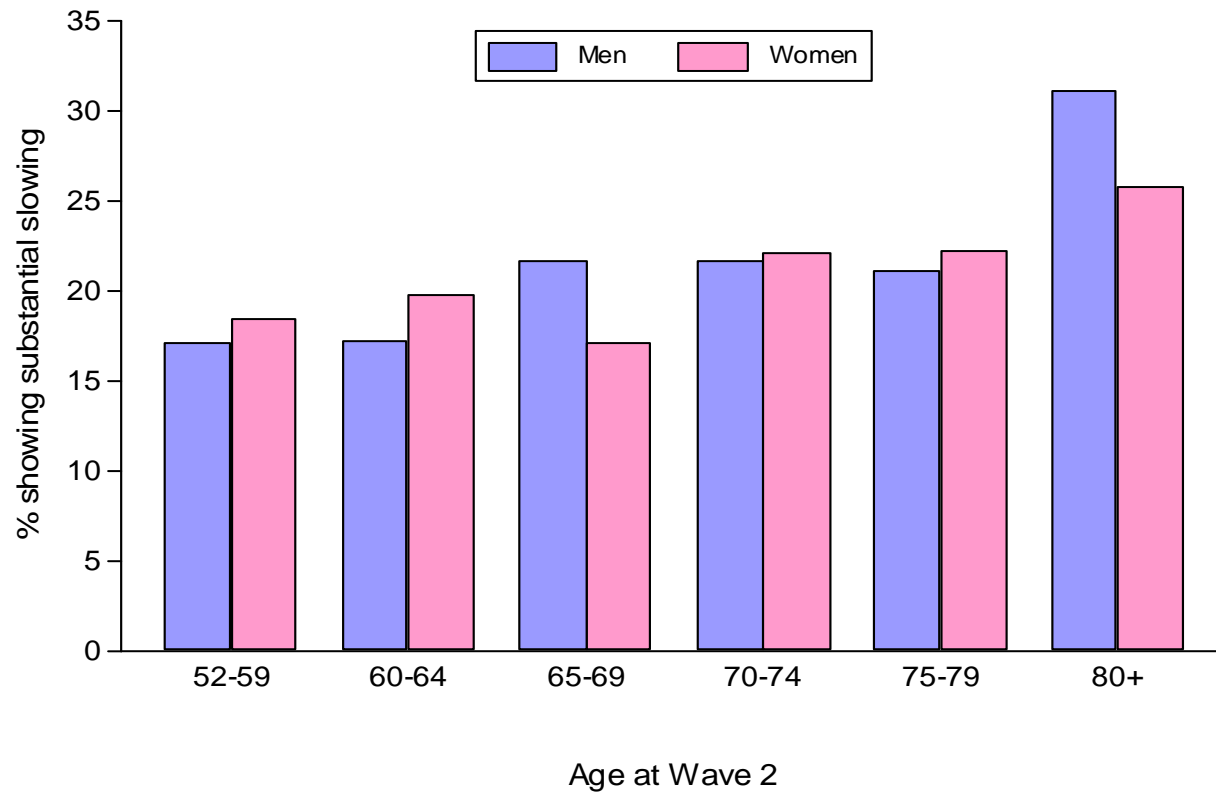
Percent forgetting to carry out action



How good is the agreement between self-reported memory change and decline in test performance?



Percentage showing substantial slowing on a visual search task



Literacy at ELSA wave 2

Literacy score	0	1	2	3
% obtaining score	1.7	10.0	22.2	66.1

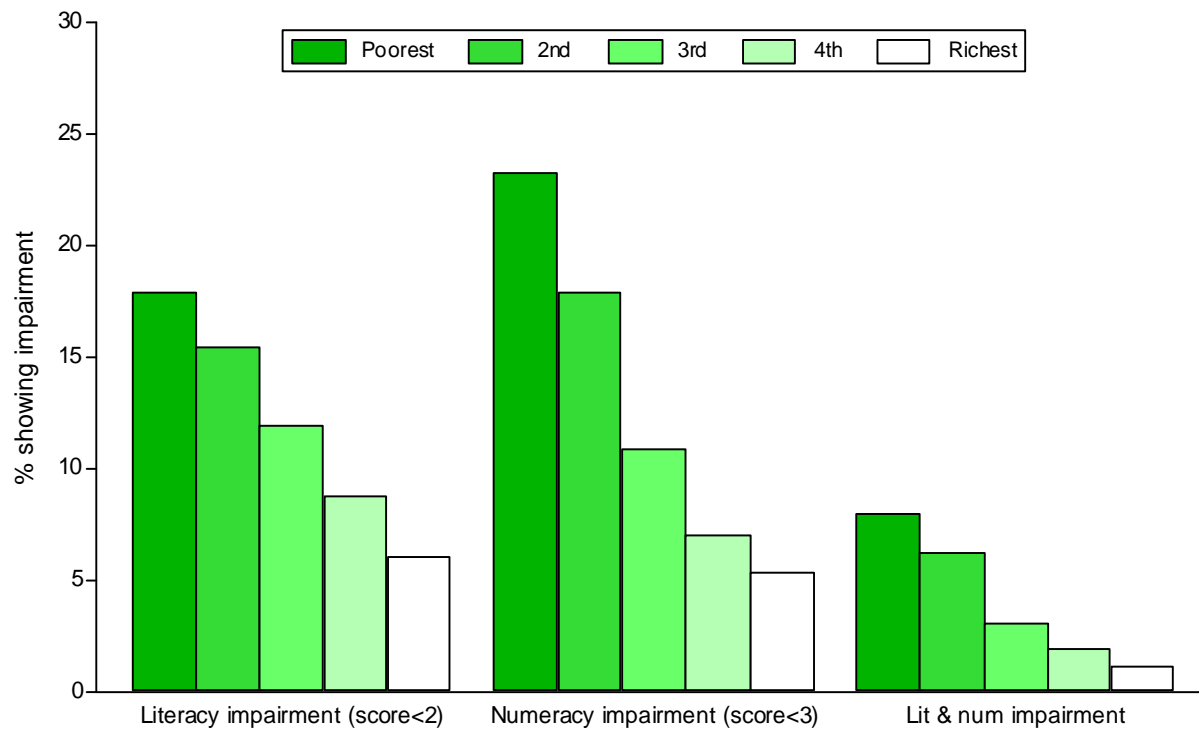
Sample of numeracy items

- In a sale, a shop is selling all items at half price. Before the sale, a sofa costs £300. How much will it cost in the sale? (Entry level)
- If you buy a drink for 85 pence and pay with a one pound coin, how much change should you get back? (Easiest)
- Let's say you have £200 in a savings account. The account earns ten per cent interest each year. How much would you have in the account at the end of two years? (Hardest)

Differential patterns of literacy and numeracy impairment by gender



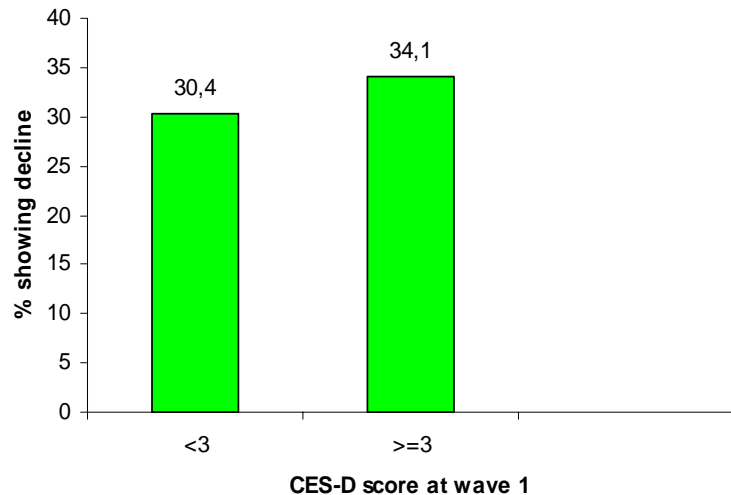
Literacy and numeracy impairment by quintiles of wealth (age adjusted)



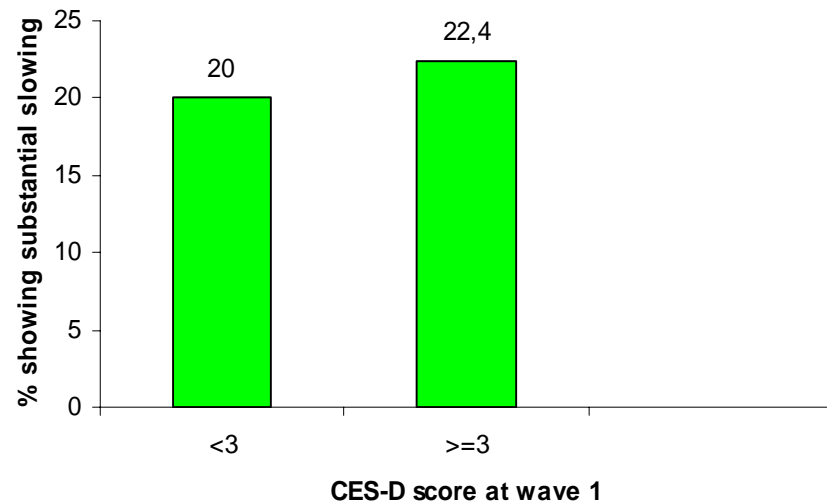
Is retirement associated with cognitive decline?



How well does mental status at wave 1 predict cognitive performance at wave 2



Decline on memory index



Slowing on search task

Conclusions

- Cognitive capability is a key factor in functioning and independence
- Even after 2 years there is evidence of age-related decline
- We will examine the factors associated with decline and maintenance of cognitive function
- Impairments on literacy and numeracy have an impact on all aspects of health, wealth and behaviour
- Trajectories of cognitive function and their underlying factors will have implications for health and social policy and for design.