ELSA wave 2 Launch - Health

Elizabeth Breeze and Mary Pierce
Objective measures of physical health

- New outcomes in ELSA
- Differences by age
- Differences by total wealth
- Conclusion
What’s new in wave 2

- Nurse visit
  - Anthropometry (height, weight, waist hip)
  - BP
  - Lung function (PF, FEV1 and FVC)
  - Blood samples for:
    - Lipids, inflammatory markers, fasting blood glucose and glycosylated haemoglobin
    - Haemoglobin and ferritin
    - DNA
What’s new in wave 2 (continued)

Physical performance tests:
- lower limb mobility (time for five chair rises, 5 progressively more difficult balance tests),
- a measure of muscle strength (grip strength)

Saliva samples (for cortisol)
Differences by age
Differences in blood pressure with age

mm Hg

Age group

52-54 55-59 60-64 65-69 70-74 75-79 80+

systolic men
systolic women
diastolic men
diastolic women

ELSA English Longitudinal Study of Ageing
Percentage of women with hypertension by age group

Age group

52-54  55-59  60-64  65-69  70-74  75-80  80+

% 0 10 20 30 40 50 60 70 80

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English Longitudinal Study of Ageing
Women- % obese and % with raised waist:hip ratio (WHR) by age group

![Graph showing women's obesity and WHR by age group. The red line represents WHR => 0.85, and the yellow line represents BMI => 30.](image)

**ELSA** English Longitudinal Study of Ageing
Percentage of men with raised total cholesterol (5mmol/l or more) by age

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English Longitudinal Study of Ageing
Grip strength by age

Age group:
- 52-59
- 60-64
- 65-69
- 70-74
- 75-79
- 80+

kg

Men
Women

ELSA English Longitudinal Study of Ageing
Differences by wealth
Differences in the prevalence of diabetes by wealth

- Undiagnosed diabetes
- Diagnosed diabetes

Age-specific wealth quintile

- Poorest
- 2
- 3
- 4
- Richest

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English Longitudinal Study of Ageing
Women – systolic blood pressure hypertension and wealth

\[ \text{mean SBP mmHg} \]

\[ \text{BP } \geq 140/90 \]

Wealth

poorest 2nd 3rd 4th Richest
Systolic BP by wealth across age groups
Percentage with raised total cholesterol (5mmol/l or more) by wealth

Wealth

poorest 2nd 3rd 4th richest

% 100 90 80 70 60 50 40 30 20 10 0

Men

Women

English Longitudinal Study of Ageing
Short Physical Performance Battery

Combined score (range 0-12) for:
- Gait speed
- Chair rises
- Balance tests

Impairment (score 8 or less) is predictive of future disability
Impairment on Short Physical Performance Battery, by wealth tertile and age

ELSA English Longitudinal Study of Ageing
Summary

- Most of the biological measures deteriorate with age but there are exceptions.
- Many biological measures are better in the richer than poorer people, but there are exceptions.
- Differences by wealth are not always in the expected direction
Change in health between waves
Deaths between waves, by wealth

Wealth quintile

Poorest 2nd 3rd 4th Richest

Men 50-74
Men 75+
Women 50-74
Women 75+

ELSA English Longitudinal Study of Ageing
Respondents asked if a doctor has ever diagnosed a disease

Reported on 17 chronic physical diseases
- 7 cardiovascular-related diseases
- 4 eye diseases
- 6 others: 2 sets respiratory, 2 sets musculoskeletal, cancers, Parkinson’s disease

All have potential to cause difficulties in daily living

Confining results to ever diagnosed
Percentage reporting additional diagnosis at wave 2, by age in 2002-3

Base = those without diagnosis in 2002-3
Percentage reporting one or more new diagnoses at wave 2, by sex & wealth

Age-standardized, weighted

Covers 4 eye diseases, 7 CVD-related, 6 other physical diseases
Percentages without diagnoses of any of 17 chronic diseases by sex & wealth

Age-standardized, weighted

ELSA English Longitudinal Study of Ageing
Covers 4 eye diseases, 7 CVD-related, 6 other physical diseases
Odds ratios for i) self-reported walking difficulty ii) poor gait speed, by wealth

**Age 60+**

ELSA  
English Longitudinal Study of Ageing  
W1 only, w2 only, both; ref=neither
Change-conclusions

- 17 chronic conditions studied – all capable of contributing to disability
- Substantial percentages had additional diagnoses even in 2 years
- New diagnoses were more common among the poorer than the richer; stronger gradient at younger ages
- Self-reported and measured walking showed similar wealth patterns
  - Strong gradient for being seriously impaired both times
  - Richest 20% least likely to become seriously impaired in 2 year period
Symptoms

Pain as an example

- Measure
  - Often troubled by pain
  - AND rates pain when walking on a level surface as 6+/10 at two or more of hip, knee, foot, back

- Likely to be handicapping in daily life.
- Notably worse quality of life compared to those who did not have severe pain at any of the four parts of the body
Percentage reporting severe pain at two or more of back, hip, knee, foot by wealth quintile

Wealth

Men

Women

% 52-59 60-74 75+-

Poorest 2nd 3rd 4th richest poorest 2nd 3rd 4th richest

ELSA English Longitudinal Study of Ageing
Percentage reporting severe pain at two or more of back, hip, knee, foot by work status in 2004-5

[Bar chart showing percentage reporting severe pain by work status for men and women, with categories paid work, unemployed/temporarily sick, retired, and home/family. The chart is color-coded with shades of 52-59, 60-74, and 75+ age groups.]
Self-perception of financial status

- How often have too little money to spend on needs
  - 5 point scale
  - LESS likely to be reported as a problem as grow older, especially if poor

- How well off feel compared with people nearby
  - 5 point scale
  - % saying “about the same” increases with age
  - Those in their 50s responded most favourably
Relative deprivation and fair/poor self reported health (1)

Odds ratio, age and gender adjusted

<table>
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<th>Most of the time</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
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<td>6</td>
<td>5</td>
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Relative deprivation and fair/poor self reported health (2)

How well off compared with people nearby

Odds ratio, age and gender adjusted

Much worse off  A bit worse off  About the same  A bit better off  Much better off

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English Longitudinal Study of Ageing
Wealth and fair/poor self reported health

Odds ratio, age and gender adjusted

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English Longitudinal Study of Ageing
Relative deprivation, wealth and fair/poor self reported health

Mutually adjusted odds ratios

- Wealth quintile
- Money to meet needs
- Compared with others nearby

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Quality of Care

- Applied to medical conditions that either common or important cause of disability
- Criteria applied to treatment received, not outcomes
- Selection based on evidence that these forms of treatment are effective
- Indicators developed from RAND “Assessing the care of vulnerable elders” (ACOVE)
- Adapted for ELSA questionnaire after assessment for relevance by panel of 10 clinical experts in England
Receipt of indicated care by health condition

- Ischaemic heart disease: 80%
- Diabetes: 80%
- Pain: 78%
- Hearing: 76%
- Hypertension: 72%
- Vision: 59%
- Osteoporosis: 52%
- Incontinence: 51%
- Diabetes & risk factor: 44%
- Falls: 42%
- Balance: 15%
Trends in quality of care, by wealth

% respondents adhering to medical advice

vision
hypertension
osteoarthritis
incontinence
diabetes blood check
diabetes training

poorest 2 3 4 richest
Round up

Exciting new measures
The oldest groups in the community are not always the ones with the worst health indicators
While the richest have many health advantages over the poorest, there are exceptions
- differences seem to moderate with age
- the picture is not always straightforward
Self-report, symptom and objective measures all needed to understand the ageing trajectory
The English Longitudinal Study of Ageing

Research team

- International Institute for Society and Health, UCL
- Institute for Fiscal Studies
- National Centre for Social Research
- plus researchers from Cambridge, Exeter, University of East Anglia

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