

1. Introduction

Michael Marmot *University College London*

Elizabeth Breeze *University College London*

ELSA is growing up. The third wave of the English Longitudinal Study of Ageing (ELSA) means that we now have a four-year follow-up period on a sample of the English population aged 50 and over at the first wave. In addition, there are earlier data coming from the original Health Survey for England (HSE) from which the ELSA sample of participants was drawn. The report from the first wave of ELSA showed how marked is the variability in older people's social and economic circumstances, physical and mental functioning, and health (Marmot et al., 2003). The myth of older age as uniformly characterised by decline and dependency is contradicted by the evidence of vigorous and active nonagenarians.

The report after the second wave of ELSA showed, in considerable detail, how most of the salient domains of people's lives varied according to their wealth (Banks et al., 2006). We used wealth as a socio-economic measure. The analyses in that report made use of a key feature of ELSA – its accurate assessment of wealth including pension wealth. Mortality, ill health, social isolation and loneliness all differed, in a graded way, with people's wealth: less wealth was associated with being sicker, less functional and more isolated.

This third wave now allows two interrelated activities making use of ELSA's special strengths – exploring how the various areas of people's lives interact and using longitudinal data to sort out the order in which things happen.

For the latter, longitudinal, analyses, ELSA is still young. The Health and Retirement Study (HRS) in the US, which provided a model for ELSA, continues to provide rich information on the trajectories of older people after 16 years of regular surveying. A feature of ELSA and HRS, and now of the numerous other ageing studies being conducted in different countries, is that people enrolled at the beginning of the study are followed over time. This allows identification of how changed circumstances in one domain affect subsequent change in others – economic fortunes, social functioning, health, and physical and mental functioning.

Both the longitudinal nature of ELSA and its multidisciplinary make it a key study for providing understanding relevant to policy. The government has produced a new set of public service agreements (PSAs). PSA 17 is entitled *Tackle Poverty and Promote Greater Independence and Wellbeing in Later Life*. It sets out five key aims for people at older ages:

- making a contribution to society, in particular through employment;
- material well-being, in particular the need to continue tackling pensioner poverty;
- the level of health experienced in later life;

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- satisfaction with home and neighbourhood including, for example, the impact of factors such as access to services, transport and crime, and social contacts; and
- the ability to maintain independent living, while being supported with health and care services where needed.

Data and analyses from ELSA are relevant to each of these aims.

Employment

One, but not the only, way to measure contribution to society at later life is continuation in employment at ages 50–69. In ELSA, we have looked at what predicts being in employment at wave 3 and changes in employment over the four-year period from wave 1 to wave 3.

Expectations are related to outcomes.

- As successive cohorts of people in their 50s and early 60s have increased their employment rates in recent years, so too have expectations of continuing to be in paid work for some years yet. Self-reported chances of being in paid work at older ages from wave 1 have proved to be strongly correlated with subsequent outcomes.

Partner's employment is important ...

- Individuals are less likely to leave full-time work if their partner is working. And those who do leave full-time work when their partner is working are more likely to move into part-time work than to quit altogether.
- Both men and women are more likely to continue working beyond State Pension Age if their partner is working, whether their partner is under or over State Pension Age.

... as are physical health, ...

- The onset of major health conditions, such as heart attacks, lung disease and cancer, is associated with a higher likelihood of leaving full-time work and, on leaving full-time work, of quitting altogether rather than moving into part-time work.

... type of pension, ...

- Men, but not women, who are members of defined benefit pension schemes are more likely than those who are members of defined contribution pension schemes to leave full-time work, other things being equal.

... and education and previous work experience.

- People with least education are least likely to be in employment over State Pension Age, after allowing for health and other circumstances.
- Longer time in a particular job increases the chance of leaving full-time paid work and decreases the chance that, having left full-time work, the move is to part-time work rather than stopping paid work completely.

- Individuals are much more likely to return to work at older ages if they have only been out of work for a short period of time.

The onset of deteriorations in health that limit the ability to work:

- Work disability is by no means a permanent state of affairs. Over one-quarter of those reporting a health-related work disability in 2004 reported no work disability two years later.¹ But ‘recovery’ from work disability is not random. Those who are working, those who have no major health conditions and those at the top of the wealth distribution are most likely to recover.
- Amongst those working and not reporting a health-related work disability in wave 2, subsequent onset of work disability over the following two years is higher for men, for part-time workers and for those at the bottom of the wealth distribution.

Material well-being and pensioner poverty

Reaching State Pension Age does not, in itself, lead to poverty. Rather,

Poverty of income is related to being single, ...

- Single individuals are more likely to be in income poverty (less than 60% of the median family income) than people in couples, with women who are divorced, separated or widowed having the highest risk of income poverty.

... low level of pensions ...

- Those estimated to have accumulated relatively low levels of state and private pension rights are found to have a much greater risk of being in income poverty.

... and being out of the labour force.

- Those who move out of the labour force and those whose partner moves out of the labour force between 2002–03 and 2006–07 are more likely to move into income poverty in this period and less likely to move out of it.

Wealth has increased.

- Large increases in total wealth occurred between 2002–03 and 2006–07, with these increases being seen right across the distribution of wealth in 2002–03. The median nominal increase in total wealth over this four-year period was 39%. This has been caused by large increases in house prices boosting housing wealth: the median nominal increase in non-housing wealth was just 6%.
- The distribution of change in non-housing wealth over this period provides little evidence that those experiencing large increases in their housing wealth chose to save less in other forms as a result.

¹ This estimate may be an overestimate since there was greater loss to the sample of working people with work disability in wave 1 than of those without.

Level of health

Longitudinal studies are the best way to determine what influences the onset of ill health and disability and what shortens healthy life expectancy. This will be an important contribution of ELSA, but the follow-up period of ELSA is still too short to yield a great deal of analysis. That said, much of importance to health at older ages has emerged.

Weight and waist circumference have increased ...

- Between wave 0 (the Health Survey for England, from which the ELSA sample was chosen) and wave 2, there was an increase in waist circumference among people aged under 75 at wave 1, while Body Mass Index (BMI) increased for the youngest men and for women in their 50s and 60s. We are watching the obesity epidemic develop in real time.

... and is causing problems, ...

- Higher BMI and/or waist circumference is associated with relatively large increases in prevalences of back pain, shortness of breath, difficulties with walking, arthritis and (in women) depression; with lower quality of life; with increased likelihood of having cardiovascular disease; and with increased risk of death.

... but don't go too far in the other direction.

- Being underweight is associated with increased risk of death in men but not women.
- Small waist circumference is associated with the greatest decrease in walking speed over a four-year period for men.

Mortality is not random: it is better to be wealthy, ...

- There is a clear and graded relation between wealth at wave 1 and subsequent mortality risk – the more wealth, the lower the risk of dying.

... to not live alone ...

- Men and women not living with a partner have higher mortality risk than those who are living with a partner (married or not). Contrary to the rumour that marriage is good for men and not for women, ELSA shows that the mortality advantage of being married appears to extend to women as well as men.

... and to continue to follow advice.

- Smoking and physical inactivity are associated with increased mortality risk.
- Occasional alcohol consumption, but not daily drinking, is associated with lower mortality risk than that seen among those who never drink alcohol.

Health is more than staying alive.

- There are clear and substantial socio-economic gradients in loss of physical functioning as measured by slow walking speed or by difficulties with activities of daily living. The gradients were found both for personal wealth and for neighbourhood deprivation.

- As expected, both physical and mental ill health are important predictors of non-participation in leisure activities.
- Healthy life expectancy will be an important focus of policy for the future. Different measures of ‘healthy’ life expectancy give somewhat different results. ELSA will be in a position to make judgements on the utility of different measures.

Quality of life

ELSA has a number of measures of quality of life – prominent among them are the CASP-19 (C=control, A=autonomy, S=self-realisation, P=pleasure) and the GHQ-12 (General Health Questionnaire) which we use as a measure of well-being.

Quality of life and well-being – more ill effects of being alone, poor and unwell:

- Those individuals who are divorced, separated or widowed are found, on average, to report lower levels of well-being (measured using the GHQ-12 scale) than other individuals.
- This is also true of those reporting difficulties with physical functioning (an indicator of poor health).
- Women are found to report higher levels of quality of life (measured using the CASP-19 scale) than men, for a given marital status.
- Both improved self-reported well-being and increased self-reported quality of life are found to be associated with increased income.

Some people are more resilient than others.

There is increasing interest in people’s ability to resist adversity and flourish under it. Put differently, why does adversity not affect all people equally? As usual, to turn a concept into something that can be measured and analysed takes developmental work. This report shows results of that work. The concept of resilience was put into practice by examining circumstances that commonly lead to depression and then identifying people who came through these events without development of depressive symptoms.

The coherence of the measure was shown by:

- Resilient older people are more satisfied with their lives and have a better quality of life.
- They expect to live longer.

Future research will aim to explore why some people are more resilient than others and whether conscious social policy could foster resilience.

Independent living

Much of the concern with the ability of older people to live independently has been with their physical and mental abilities to function and with the existence of services to meet the needs of those with severe limitations. ELSA has much to say on this topic and has analysed activities of daily living (ADLs) and

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instrumental activities of daily living (IADLs). Please see Chapter 3 of this report.

Another important aspect of functioning at older ages is remaining an active member of society, not only to contribute, but also to receive the benefits of social inclusion. We examined the converse, labelling it social detachment and measuring it as disadvantage on three of six indicators of social participation – contacts with other people, social support, civic/political involvement, participation in culture, participation in recreational activities/hobbies and participation in leisure.

Social detachment is relatively uncommon, but many are at risk, ...

- One-in-ten older people experienced social detachment at least once across three biennial observations. In half of these, it persisted across at least two of the three waves.
- Approximately half of older people were at risk of social detachment (disadvantaged on at least one of the six indicators of participation).

... and it matters.

- The longer the duration of social detachment, the worse the quality of life (as measured by CASP-19) and other measures of well-being.

Isolated in the family sphere, isolated in others, ...

- Not living with a partner was associated with increased risk of persistent social detachment, even if living with their children or other people.

... having low education, ...

- Those with a low level of education had a risk of social detachment that was more than twice that of people with high education.

... fewer material resources, ...

- Older people on lower incomes (bottom 60% of the distribution), those suffering from material deprivation and those living in poor housing were markedly more likely to be affected by longer-lasting social detachment.

... lack of access ...

- Older people who lacked access to various services, transport, financial products or modern communication technologies faced an increased risk of prolonged social detachment. In each case, the odds were one-and-a-half to two times higher than for people who had access.

... and poor health.

- The odds of being persistently detached were three times higher for those reporting poor health than for those reporting excellent health.

There is likely to be a two-way relation between social detachment and poor health: each increases the likelihood of the other. The relative contribution of social detachment for development of poor health, and of poor health for social detachment – and the policy implications of each – will become clearer in subsequent waves of ELSA.

Methods

Chapter 9 gives information on the fieldwork methods, response rates and content of the ELSA interview. A brief summary of the design is given here.

The original ELSA sample was drawn from households previously responding to the Health Survey for England (HSE) in the years 1998, 1999 and 2001 (Marmot et al., 2003). Individuals were eligible for interview if they were born before 1 March 1952, had been living in a responding HSE household and were, at the time of the ELSA 2002–03 interview, still living in a private residential address in England. In addition, partners under the age of 50 years, and new partners who had moved into the household since HSE, were also given a full interview. All those who were recruited for the first wave or have since become partners of such people are known as Cohort 1. People eligible from HSE who took part in ELSA wave 1 are designated as core members. In the second wave, which took place between June 2004 and July 2005, the core members and their partners were eligible for further interview, provided they were still alive and had not refused any further contact after the first interview. In the third wave, the aim was to supplement the original cohort with people born between 1 March 1952 and 29 February 1956 so that the ELSA sample would again cover people aged 50 and over. The sources for the new recruits were the 2001–2004 HSE years. As before, people were eligible if they had been living in a responding HSE household and were, at the time of the ELSA 2006–07 interview, still living in a private residential address in England. Partners were also interviewed. These people form Cohort 3. See Chapter 9, pages 282 and 299 for an explanation of a shortfall among this cohort and the way this has been handled in weighting. Wave 3 interviews took place between April 2006 and July 2007. The median time lapse between waves 1 and 3 for Cohort 1 core members was 49 months (interquartile range 48–51 months, minimum time lapse 38 months, maximum 63 months).

In waves 1 and 3, there was a face-to-face interview and a self-completion form. In wave 2, there was also a nurse visit, as there is in wave 4, which is in progress at the time of publication. Broad topics covered in every wave include household composition, employment and pension details, housing circumstances, income and wealth, self-reported diseases and symptoms, tests of cognitive performance and of gait speed, health behaviours, social contacts and selected activities, and a measure of quality of life. The main innovation for wave 3 was assignment of self-completion forms containing vignettes to subsamples of participants. The concept of these vignettes is described in Chapter 9, page 286. The main idea behind them is to assess to what extent differing distributions of self-rated health among different subgroups can be explained by differing thresholds as to what constitutes mild or moderate or severe problems with health. These have been used in Chapter 2 on Extending Working Lives and there is scope for a range of uses – for example, in understanding social gradients in health or in making international comparisons (our sister studies the Health and Retirement Study in the US and the Survey of Health, Ageing and Retirement in Europe have also used vignettes in their studies).

In this report, the intention is to show some of the ways in which ELSA data can be used to look at current policy issues. This report does not claim to be

exhaustive in the analyses that have been done but to showcase a variety of approaches that can be taken and data that can be used. The authors were given a free hand in approaching their topic in the way they considered most appropriate. Although there are parts of the report where the intention is to look at prevalences and distributions (for example, of wealth in Chapter 4), for the most part the focus is on relationships between different parts of people's lives over time. For example, Chapter 2 examines the predictors of staying in work, Chapter 3 the factors that are associated with greater or less likelihood of participation in leisure activities, Chapter 5 the characteristics that seem to make people more vulnerable to being socially detached from society and Chapter 8 the factors that increase risk of death in the four-year period after wave 1.

In wave 3, the use of dependent interviewing continued; with this approach, participants are reminded of responses given at the most recent interview and asked to update the information (for example, on job undertaken, pension scheme membership, diagnosed chronic diseases). Where a sample member is too sick or cognitively impaired to respond directly to questions themselves, a person whom they have previously nominated as their proxy is asked to provide information but is not asked to second-guess the more subjective information such as attitudes, perceptions of ageing or expectations of the future.

In 2007 a life-history interview also took place, capturing information on lifetime family circumstances, place of residence, and employment, and also information on major health events and other life events that could have an impact on the later years of life. Although this report was written too soon to use this life-history data, we believe it will greatly increase the opportunities for taking a lifetime perspective on ageing.

The ELSA data are deposited in the Economic and Social Data Service Archive (www.esds.ac.uk/longitudinal) for use by academics, policymakers and others with an interest in ageing. During the writing of this report, a second version of the main data from wave 3 was prepared. This second version was used for the analyses in Chapters 2–4; otherwise, the first version was used. For the purposes of the analyses here, the differences between the two versions were minor.

Reporting conventions

The analyses in this report use information from the core members of ELSA. Except for mortality analyses, measures of change apply to those who took part in either two or three waves of fieldwork. For most of the analyses, proxy interviews have been excluded, mainly because a much reduced set of information is available for these people. The numbers included in analyses vary considerably as most of the analyses refer to subgroups of those taking part: 7,047 core members took part directly in all three waves (i.e. did a complete or partial interview and were not proxies) and were not in long-term care at any wave; 7,344 took part in waves 1 and 3 directly and were not in long-term care at either wave. The new recruits are included in analyses about employment and work disability in Chapter 2 and in analyses of changing

income and wealth distributions in Chapter 4, and will strengthen the scope for analyses of changes at the younger end of the age spectrum.

The longitudinal weight available for analyses is described in Chapter 9. This has been used for most of the more descriptive longitudinal analyses unless the weighting made no substantive difference. A cross-sectional weight has also been created but is not used in the report.

Statistics in cells with between 30 and 49 observations are indicated by the use of square brackets. Statistics that would be based on fewer than 30 observations are omitted from the tables; the number eligible is given but a dash is placed in the cell where the statistic would otherwise be placed.

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The people who matter most to us are our participants. They have given generously of their time on up to five occasions already and most have agreed to be recontacted. We hope that they find participation in the study interesting and that they will help us to track through the changes that happen as people age. From time to time, we send out newsletters to participants and hope that these begin to show the value of the study.

The institutions primarily involved in running the study are University College London (UCL), the Institute for Fiscal Studies (IFS) and the National Centre for Social Research (NatCen). Colleagues at the Universities of Manchester and Cambridge are also lead researchers on the study. We have close cooperation with colleagues at the above institutions who are not part of the main ELSA team and with researchers at the Peninsula Medical School in Exeter, the University of East Anglia and Imperial College. The study has involved a great many individuals in each of these institutions, some of whom are reflected in the authorship of chapters in this report. Others, including over three hundred dedicated interviewers, are unnamed here, but have been crucial to the success of the study and are very much appreciated. With regard to this report, particular thanks are due to Judith Payne and Anne Rickard for assiduous copy-editing and preparation of the final manuscript and to Emma Hyman for guiding the report through the final stages of publication.

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