

1. Introduction

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Do people rage against the dying of the light or do they go gently into that good night? Translating Dylan Thomas: as people age, do they continue to participate actively in work and social life, retain health and function for substantial periods, or do they subside, go gently, into inactivity, decline and eventual death?

There are two types of questions here: what policymakers, politicians and social commentators think people should do – subject of much current debate; and what people actually do. A key purpose of ELSA (the English Longitudinal Study of Ageing) is to discover what people aged 50 years and above do, and are able to do, in areas that are of great interest to all of us whether policymaker, researcher, commentator or simply interested citizen: work, spending, health and receipt of healthcare, social participation, cognitive ability. A second major purpose is to go beyond description of what people do to discover why – to seek explanations for which people have good trajectories in older age and which less good. Without such understanding, it is hard to see how policies could be designed to make things better.

In our first report from ELSA (Marmot et al., 2003), following the first wave of fieldwork in 2002–03, we drew attention to the great diversity in health, physical, social and psychological functioning and economic fortunes in the population. We hoped that results from ELSA would do much to contradict the picture of older age as a time of inevitable decline. In this second report, following the second wave of fieldwork in 2004–05, we fill out the picture further. In particular, we examine an important aspect of diversity: how each of the areas covered by ELSA varies according to people's level of wealth.

One of the strengths of ELSA is that it combines expertise from a number of disciplines. For example, it is common for those of us who do health surveys to treat economic measures as worth adding only if the task can be accomplished with a few questions. Those of us who do economic surveys commonly want to know the minimum that needs to be done to assess health. In ELSA, assessment of wealth is not only superior to that in health surveys; it is likely to be more complete than in most economic surveys. It includes not only current assets but also a calculation of pension wealth. Wealth is important, of course, not only because it provides a summary measure of economic fortunes through the life course but because it also provides a measure of security for the future. Future security is particularly important for people contemplating retirement, experiencing it or living with its aftermath.

ELSA, true to its name, is a longitudinal study. Participants are re-interviewed every two years. This means that we can study the consequences that conditions at one time have for the future. The real 'pay-off' from ELSA will come in the future as we continue to follow the cohort. The key research questions of ELSA include understanding of:

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- health trajectories, disability and healthy life expectancy;
- determinants and links between economic position and health at older ages;
- timing of retirement and the nature of post-labour-market activity;
- social networks, social participation and social support;
- household and family structures and the role of family transfers.

Despite the fact that we are only reporting here on wave 2 of ELSA – a two-year follow-up – longitudinal analyses can still be illuminating. For example, at wave 1, we examined the proportion of people, at a given age, who were no longer in the labour force. The proportion not working was high for those in the bottom 20% of the wealth distribution *and* high for those in the top quintile. We speculated that those in the bottom wealth group were not working because they could not – due to ill health or lack of available work – and those in the top group were not working because they did not have to. Longitudinal data would yield the answers to these questions.

Continuing to work?

Because of the public discussion of how long people should work before they draw their pensions, leaving the labour market is of topical policy interest. Although two years is a short time to follow people, the longitudinal data reported here show that having a defined benefit pension, as opposed to having a defined contribution pension, being in part-time work, and feeling in fair or poor health, all predict that people will stop work within two years.

If working longer is seen as a desirable policy option then attention must be paid to the reasons why people leave the workforce. ELSA will continue to provide crucial insights on this issue.

Straitened circumstances?

Wave 2 of ELSA provides detailed measures of patterns of expenditure and consumption for ages 52 years and above. Not surprisingly, these differ markedly by wealth. Although expenditure goes down with age, there is evidence that this reduction, on average, is seen as a diminishing problem. We asked not only about consumption but whether people lacked enough money to meet their own needs. At age 52–59, only 10% of people in the bottom quintile of wealth said they never lacked money to spend on their own needs. This proportion had increased to above 30% at 70 years or over. For the richest 20% – people in the top wealth quintile – the proportion rose from 50% never lacking money to meet their needs at age 52–59 to over 60% at age 70 or over.

This ‘improvement’ for older relative to younger people could reflect a changing definition of what constitutes a ‘need’ as people age, or it could be that the lifetime experiences of the oldest generations led to a different outlook in old age from the one that their successors will have. One should not assume, however, that the problem of insufficient resources at older ages is solved by

diminished expectations. Objective measures point to a continuing problem. We used the definition of fuel poverty as a household spending more than 10% of its income on domestic fuel. Although the overall prevalence of fuel poverty in ELSA is 8.3%, it is much higher, at just under 20%, among participants aged under 60 in the bottom wealth quintile. Fuel poverty is more marked for older women than older men. We also show that a quality-of-life measure, the CASP-19, is strongly linked to fuel poverty.

Health at older ages

In the ELSA wave 1 report, we drew attention to the fact that three-fifths of people at age 80 or over described their health as good, very good or excellent. This was reassuring and contradicted the assertion that older age means inevitable ill health. This is not to deny the real need for medical care at older ages. One way we looked at this was the proportion of people who remain free of disease – we included four eye diseases, seven cardiovascular diseases and six other physical diseases. The proportion who still had none of these diseases in 2004–05 falls from around half those aged 50–54 in 2002–03 to around one-in-ten of those aged 75–79 in 2002–03. For those aged under 75, the wealthiest were less likely than the poorest to report a new condition in 2004–05.

Given the high prevalence of one or more diseases in people surviving to older ages, the quality of healthcare is important. At wave 2, ELSA introduced measures of healthcare quality. These will become increasingly important in longitudinal analyses as we assess the impact of new diseases on health and functioning. There is marked variation in quality of care received by condition – in general, good-quality care for ischaemic heart disease, hypertension and diabetes, and rather poorer care for falls, balance and incontinence.

A particular strength of ELSA is the presence of biological markers of illness. This strength can be illustrated by a recently published comparison of socio-economic differences in a number of diseases between studies in England and those in the US, including ELSA and the US-based Health and Retirement Study (Banks et al., 2006). We confined the comparison to white men and women aged 55–64. A striking finding was that for each of six conditions, American men and women had more illness than the English. This came as a surprise to some observers because national expenditure on healthcare per head is two-and-a-half times higher in the US than in the UK. It is possible that Americans report more illness more frequently than the English, not because they have more illness but because they are more likely to have it detected – greater medicalisation of the population. We therefore compared biological markers of disease. For these, too, Americans were worse off. The presence of biomarkers made the conclusion much more secure than had we relied only on self-reports of doctor-diagnosed illness. Thus, the introduction of biomarkers in wave 2 of ELSA greatly enhances the opportunity for learning the nature of health differences between countries.

Similarly, when we make comparisons within ELSA by region, by age and by wealth quintile, the presence of biomarkers lends much to interpretation of observed differences in health. For example, this report shows that greater wealth is associated with lower prevalence of obesity, particularly in women,

and lesser central adiposity (as measured by the waist–hip ratio). Turning to plasma lipids (fats in the blood), ELSA confirms that plasma total cholesterol does not decrease with increasing wealth quintile. There are, however, clear differences in HDL cholesterol – the good cholesterol – with fewer people having low levels in the highest wealth quintile. Together with plasma triglyceride – which is also adverse in people with less wealth – central adiposity and HDL cholesterol make up part of the metabolic syndrome. Possession of this syndrome puts people at increased risk of developing diabetes and heart disease. These results show that such increased risk is linked clearly to wealth – the less the wealth the higher the risk.

C-reactive protein (CRP) is a marker of inflammation and is strongly linked to risk of heart disease. The close link between lower wealth and increased CRP levels requires investigation. It suggests that CRP can be used as another biological marker of the biological effects of low socio-economic position. Alternatively, it could be a marker that poor health leads to wealth reductions. Further longitudinal data will distinguish the relative contribution of these two mechanisms.

Physical and cognitive functioning

A major concern as people age is not only with specific diseases but with ability to function, physically and mentally. At wave 1 of ELSA, we showed striking differences in physical functioning by socio-economic position: the more education people had the longer was their physical functioning preserved. As with all wave 1 findings, these conclusions were tentative because based on cross-sectional findings. Although only two years has elapsed between waves 1 and 2, we can already observe deteriorations and, to a lesser extent, recovery of physical function. The wealthiest were less likely than the poorest to deteriorate in function between the two fieldwork waves (e.g. 4% of all men in the richest quintile compared with nearly 11% in the poorest).

Cognitive performance is an important part of continued ability to function independently. At wave 1, we documented the fact, with the usual caveat about the limitations of cross-sectional findings, that although cognitive function declined in all socio-economic groups, it started from a much lower level among those with less education. Therefore those of lower education were at much greater disadvantage at each age.

Prospective memory is remembering to do something in the future without being reminded. In this report, we show that around 60% of our participants aged 75 and older forgot to perform an action that they had previously been requested to carry out. If, as we judge, this is indicative of performance in everyday life, it means that action is necessary to help older people cope with this forgetfulness.

On simple measures of numeracy and literacy, there were striking socio-economic differences, such that substantial proportions of the poorest people scored low on literacy and/or numeracy. Although only 4% overall were impaired on both literacy and numeracy, almost eight times the proportion of participants in the lowest quintile were impaired as in the highest. These

measures, too, have important implications for continued ability to function in everyday life.

Important analyses for future waves of ELSA will be the determinants of what puts people on better or worse trajectories of change in functioning with age.

Experiences of ageing

In all the important policy-related discussions of work, economic fortunes, health and functioning, it is possible to forget that older age can be a time of loneliness and isolation. Approximately twice as many people in the poorest wealth quintile as in the richest feel isolated often or some of the time. Not surprisingly, feeling left out is more common for people living without a spouse or with a spouse with whom they do not have a close relationship. Living alone, in turn, is more common in the poorer wealth groups.

Interestingly, about half the population of people 52 years and above describe ageing as a positive experience. Ageing is described as negative by a minority, but negative experiences of ageing are far more common amongst the poorest than the richest. Perhaps people who fear growing older can take heart from the finding that even at age 75+, a majority of people do not think of themselves as old. Perceptions seem to matter. Those who think of themselves as younger than their actual age have better health than those who think of themselves as older. Which comes first, the attitude to age or the better health, will only be settled as we gather longitudinal data on this question.

Methods

Chapter 12 gives information on the fieldwork methods, response rates and content of the ELSA interview and nurse visit. A brief summary of the design is given here.

The ELSA sample is 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, and new partners who had moved into the household since HSE, were also given a full interview. Those 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 2002–03, there was a face-to-face interview and a self-completion form. In 2004–05, there was also a nurse visit. The health and the functioning measures in the interview are primarily self-report – with the exception of a timed walk for gait speed and some objective memory and cognitive function tests. The nurse visit added objective measures of risk factors for cardiovascular diseases in the form of blood analytes and blood pressure, and also included anthropometric measures (from height, weight, waist and hip). Finally, some

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objective physical function measures were included, namely lung function, muscle strength (grip strength) and lower limb mobility (balance tests, chair rises). Chapters 5 and 6 focus on the measures from the nurse visit.

The topic areas covered in the ELSA interview and self-completion questionnaire at wave 1 included: individual and household characteristics; physical, cognitive, mental and psychological health; social participation and social support; housing, work, pensions, income and assets; and expectations for the future. The same broad areas were covered in wave 2 but there were changes in some of the details. The more major changes are noted here. Questions were added about different forms of expenditure (for example, on fuel, leisure, clothing and transfers) (reported in Chapter 9). Questions about quality of healthcare were added (see Chapter 7). Numeracy was added to the cognitive function section (reported in Chapter 8) but one memory test was removed. There were new questions on relative deprivation (reported in Chapter 10) and also on life satisfaction (also reported in Chapter 10) and on the way people perceive ageing and their own age (reported in Chapter 11). There was some enhancement of a section about the relationship between effort and reward in people's lives and the motivation and satisfaction (or lack of them) they feel when caring for others or undertaking voluntary work.

In terms of methodology, the wave 2 interviews reflected back on information collected in the first wave so that participants could update their information rather than start again from the beginning. This method applied in particular to diagnosed diseases, employment and membership of pension schemes.

Of those who completed a wave 1 interview and were eligible for a wave 2 interview as an ELSA 'core member', 81.5% took part. Of these, 88.2% also took part in the nurse interview (representing 71.2% of those eligible for a wave 2 interview). The response rate at wave 2 was considerably higher than the response rate at wave 1. This higher rate of response is expected for future waves.

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 both waves of fieldwork. Proxy interviews, where the individual was unable to respond for themselves, have been excluded, mainly because a much reduced set of information is available for these people.

Unless otherwise specified, the analyses are presented after weighting for losses to the sample between HSE and the second wave – the weighting procedures are described in Chapter 12.

Most of the analyses involve subdivision by sex and age, and/or by age-specific wealth quintile. The age at the first-wave interview has been used where the analyses look at change between the two waves; the age at the second-wave interview has been used for cross-sectional analyses of data from the second wave. The measure of wealth used comprises all wealth held by the benefit unit when they were interviewed in 2002–03 (including owner-occupied housing wealth, pension wealth, financial assets and other physical

assets such as business assets, jewellery and antiques) (Banks, Emmerson and Tetlow, 2005). The wealth quintiles used are age-specific, with separate quintiles constructed for groups of individuals aged 50–59, 60–74 and 75 years and over. Both partners of a couple are assigned the combined wealth of the couple, and this should be taken into account when comparing wealth patterns where subgroups will differ in the percentages who are in a couple or not.

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.

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