2. The socio-demographic characteristics of the ELSA population

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Among other things, the analyses presented in this chapter show:

- The cohorts covered in ELSA are ones in which marriage is the norm and cohabitation applies to a small minority. Unsurprisingly, widowhood is highly prevalent at old ages especially for women.

- Overall, only a small proportion of people in the sample have one or more children living in the household (21% of men and 17% of women), but nearly half of the men and women in their early 50s had one or more of their children living with them.

- Among men, the percentages living with at least one of their children drop substantially in successively older groups up to age 65–69 years; in this age group, 14% are living with children. The transition appears to occur earlier for women, so that by age 60–64 years only 14% are living with children.

- Household size decreases with age more sharply for women than for men: two thirds of women and one third of men aged 80 years and over are living alone, but about one in ten of both men and women live alone in their early 50s.

- Around 1 in 6 of those aged under 65 years in 2002–03 was living in smaller household in 2004–05. Few of those aged 75 years or over in 2002–03 were living in a household of different size when interviewed again in 2004–05. Fewer than 5% of participants were living in larger households in 2004–05 than in 2002–03.

- Analyses by wealth show that people who are married or cohabiting are more likely to be wealthy, while people who are divorced, single or widowed are more likely to be poor. Wealthier people are also less likely to live alone than poorer people. This is in part an artefact of the way in which wealth was defined to include combined assets of couples, but could nevertheless indicate greater hardship for those who are alone.

- A strong gradient in mortality rates by age was observed, as expected. Overall, more men than women died between wave 1 and wave 2. Further, the mortality rates were higher amongst those in the lowest wealth quintile compared to those in the highest wealth quintile.
This chapter gives an overview of the demographic characteristics of the ELSA population for the period 2004–05, based on age and sex, as well as other socio-demographic variables, including marital status, household composition and living arrangements. It also covers some demographic changes to the ELSA population between the periods 2002–03 and 2004–05, such as changes in the marital status, living arrangements, and in size of the households. Results are presented for individuals. The analyses in this chapter provide a starting point for many research questions and for studies that rely on a comparison between ELSA and other survey samples.

Age and sex are the most important factors that affect mortality and health and are the main characteristics by which our analyses have been carried out. There is a large literature focusing on sex differences in health and mortality. While different authors argue about the importance of either biological or socio-economic and behaviour factors in these sex differences, it is generally agreed that women live longer than men. On average, women in developed countries live more than five years longer than men (Waldron, 1983; Verbrugge, 1989). However, in the last twenty years, men have achieved greater gains in life expectancy than women (Arber and Ginn, 2005). This has contributed to a gradual narrowing of the male-female life expectancy gap and has significant implications for marital status and living arrangements.

Marital status has also been shown to be very important to health and mortality, especially at old age. Married people have significantly better health and lower mortality than their single counterparts (Smith and Zick, 1994). These results are particularly significant for men (Lillard and Panis, 1996; Hu and Goldman, 1990). A significant transition for many older people begins when they become widowed. Widowhood often represents the loss of a long-time partner, who may have been the main source of companionship. A number of studies (Goldman, Korenman and Weinstein, 1995; Mineau, Smith and Bean, 2002) have found that widowed, divorced and never married individuals are more likely to die earlier than married people. The ELSA study will provide opportunities to monitor the economic, social, psychological and other changes brought about by widowhood.

Living arrangements are linked to legal marital status but increasingly reflect newer forms of partnership such as cohabitation. While cohabitation is expected to be more common in the younger cohorts of the ELSA population, it is also of interest to observe the changing living arrangements arising from widowhood in the older generations. Family ties, relationship and support are thought to influence health and mortality, especially at older ages. The influence or presence of family can have a positive effect on the well-being of older people and can also provide a good preventive measure against lengthy institutionalisation (Grundy, Bowling and Farquhar, 1993; Steinbach, 1992). In most developed countries, the proportion of elderly living alone has increased in recent years. However, few studies have investigated the general impact of living arrangements on health and survival. As living alone becomes more ‘normal’, its negative influence on health and well-being may become less powerful (Davis et al., 1997).

Childlessness and the number of children could be a predictor for the presence (or lack) of social relationships and as a consequence, a predictor of health and
mortality. Children can mediate environmental stress that threatens to overwhelm the coping abilities of the older parent (Silverstein and Bengtson, 1991) and at the same time, close intergenerational relations may help to compensate for the lost support of the deceased spouse. However, the number of children in itself does not necessarily equate with meaningful help and support, so the association with mortality has reflected inconsistent trends (Bowling, 1994).

2.1 Measures

Information was collected at both the household and at the individual levels. In the second wave of ELSA, some of this information was fed forward from the wave 1 survey. Information on household characteristics such as living arrangements and relations between household members was recorded in the household grid. This household-level information was usually provided by one member of the household. Each ELSA respondent was then asked individually about age, sex, marital status and number of children (both within and outside the household). The results presented in this chapter combine information from both the household grid and the individual questionnaire.

Each ELSA respondent was asked about legal marital status in the individual questionnaire. The response options were: single, never married; married, first and only marriage; married, second or later marriage; legally separated; divorced; or widowed. The term ‘cohabitation’ is used in these analyses to describe whether the single, divorced or widowed respondent is living with a partner. Details of cohabitation and living arrangements were derived using the household grid, in which the relation of each ELSA respondent to every other person in the household was collected. The predetermined response options regarding the relationships in the household were: husband/wife; partner/cohabitant; natural son/daughter; adopted son/daughter; foster son/daughter; stepson/stepdaughter/child of partner; son-in-law/daughter-in-law; natural parent; adoptive parent; foster parent; step-parent/parent’s partner; parent-in-law; natural brother/sister; half-brother/half-sister; stepbrother/stepsister; adopted brother/sister; foster brother/sister; brother-in-law/sister-in-law; grandchild; grandparent; other relative; other non-relative.

All respondents were asked whether they have any living children, how many they have and, if they have children living outside the household, whether they are their natural (i.e. biological) children, adopted, step or fostered children. These questions were answered by all respondents in the household. The household grid was used to derive the number of children living in the household.

Deaths are reported through two methods. All participants who gave their permission (95%) are ‘flagged’ with the National Health Service Central Register (NHSCR) run by the Office for National Statistics. This register keeps track of registrations with general practitioners but also with official death registrations and with people who leave the UK health system. Most of the deaths reported here were confirmed through the NHSCR. In addition, some deaths are reported to the National Centre for Social Research by relatives of ELSA participants and by interviewers who learn of the deaths
when trying to contact the household. For this analysis, the data are weighted for a non-response at wave 1 and the bases include all who core members who took part in 2002–03, except for a small number of people (27) who were not flagged at NHSCR and for whom there was no information from field contacts. Deaths were included in this analysis if they occurred after the interview in 2002–03 and before the date on which the address would have been issued for an interview at the second wave of fieldwork.

2.2 Results

Age and sex composition

In the core ELSA sample who were living in the community in 2004–05, 46% are men and 54% are women. This is expected in a population above the age of 52, where women outnumber men as a result of their lower mortality rates at these ages. For the purpose of the analysis, the population has been regrouped into 5-year age groups with the exception of the highest and lowest groups. The median age of the ELSA population is 65, the mean age is 66.7, and the maximum age is 101. The largest proportion of the survey population is in the younger groups, with those aged 55–59 having the greatest number of people for both sexes (23% for men and 20% for women) (Table 2A.1).

Figure 2.1. ELSA core members: age pyramid in 2004–05

Figure 2.1 shows the population age pyramid for ELSA population. The number of women who survived to old age is clearly larger than the number of men and reflects the characteristics of the whole English population. The influence of the baby boom after the Second World War is evident, with more people concentrated at ages 55–58, who were born between 1947 and 1950.
The reduction of fertility during the Second World War as well as the baby bust of the 1930s is also evident. However, the evidence of these two demographic events is now slowly diminishing. The cohorts that were subject to these events are now in their late 50s to early 70s, and while the size of the birth cohort has effects on the structure of the population even after 50 years, other factors, such as survival rates, also play an important role at these ages. The number of the very old in the sample is relatively small – 11% of the ELSA sample are aged 80 or over, while 4% are aged 85 and over. These age groups will be most affected by the sample analysed here being confined to those outside long-term care. The small numbers in the youngest group are an artefact of the sample design, whereby all sample members were aged 50 and over at first interview (2002–03), and hence aged 52 or more by the second wave.

**Marital status**

Nearly two-thirds of the men and half of the women are still in their first marriage, but a substantial proportion are in a second or subsequent marriage (12% of men and 9% of women). The higher proportion of currently married men compared with recently married women is offset by a higher percentage of women than of men who are widowed. This is to be expected, given the tendency for women to marry older men and to live longer (Figure 2.2, Table 2A.2). However there is not much difference in the proportions of men and women who report being separated or divorced. It is notable that these cohorts have some of the highest proportions of married people in the past 50 years (OPCS, 1980), and the proportion of them who have never married is low. Future cohorts are likely to have higher proportions of people who are single, cohabiting rather than legally married, or divorced. There is only a small difference in the proportion of women and men who have never married, with more men than women who have never married in the young age groups. This pattern reverses in the older groups (75 years and older) with more women who have never married than men. The second pattern of findings can be explained by the cohort effect of the two world wars, where many young men were killed leaving women with fewer chances to find partners to marry. Thus, this is a cohort rather than a period or age effect. This characteristic of these cohorts has an impact on the living arrangements, family relationships and care of these elderly.

Widowhood is nowadays almost exclusively associated with old age. Both Table 2A.2 and Figure 2.2 clearly show this. There is a clear gender difference in widowhood, reflecting both higher female survival and the male-female age-gap at entrance into marriage. By the age of 75, almost one third of women have been widowed compared with only 11% of the men (Table 2A.2). In the oldest group (80 and over), almost 36% of men and 71% of women are widowed (Table 2A.2). It is common throughout Europe and North America for women to face long periods of widowhood in later life, whereas for men this is a relatively unusual experience (Victor 1994).

Cohabitation outside marriage is to some extent a recent phenomenon and high levels of cohabitation would be unexpected in a population of this age. Table 2A.3 shows clearly that cohabitation is much less common than marriage in
the ELSA sample, but is more common in the younger than the older generations.

Table 2A.3 shows analyses for both married and unmarried (single, separated, divorced and widowed) respondents: 4% of men and 3% of women live with a partner (not a spouse), while the proportion of unmarried people who do not cohabit is 22% for men and 40% for women. However, the proportion of people who are not married but are cohabiting declines at older ages. For example, while 6% of men and 7% of women aged 52–54 report living with a partner, the proportions for people aged 80 or over are only 1.3% and 0.3% respectively for men and women. Conversely, the proportion of unmarried people who do not cohabit increases with age. For example, 16% of men and 22% of women aged 52–54 report not living with a partner, while the proportion of unmarried people aged 80 or over who do not live with a partner is much greater: 40% for men and 79% for women. Figure 2.3 only shows analyses for the unmarried respondents. It indicates clearly the decrease in cohabitation as people age. It also shows a clear gender difference in
cohabitation – more women than men report cohabiting among the youngest group while men are slightly more likely to cohabit especially at older ages. This could, of course, be as a result of deaths of cohabitants, together with the fact that women have a higher survival rate than men. However, additional analyses suggest that this also reflects cohort/age differences in the relative frequency of cohabitation.

Figure 2.3. Percentage of unmarried people cohabiting, by age and sex

Analyses of wealth by marital status were done for both sexes combined. Table 2A.4 shows that across all age groups, widowed, divorced or separated, and single people are disproportionately concentrated in the lowest two wealth quintiles. For example, more than half of widowed people are in the poorest two-fifths of the wealth range and only 11% in the richest quintile. This means that those who are currently married are most likely to be near the top of the wealth range. There is probably a two-way effect here, as widowhood and separation often leads to a drop in wealth, but also those with accumulated wealth may be able to sustain health and marriage better.

In addition, poorer people are more likely to be neither married nor cohabiting. Thus, there are distinctly more unmarried people who do not cohabit in the poorer wealth quintiles (61%) than in the richest (9%). (Table 2A.5) This is at least partly an effect of the way the wealth variable is defined, attributing the combined wealth of couples to both partners. Inheritance might be one reason that the wealth distribution for widowed people aged 60 years and over is better than that for separated and divorced people and more like that of never-married people. However, there is also the possibility, as other studies have shown, that these results could be partly due to a selection effect in marriage, remarriage and cohabitation, whereby healthier people, as well as people of higher socio-economic status are selected into marriage, remarriage and cohabitation (Goldman, Korenman and Weinstein, 1995). The younger widowed people could be the subjects of adverse selection, whereby young widowhood is more likely to arise for those in lower social classes.
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**Living arrangements**

In wave 2 of ELSA (2004–05) information about the number of living children and whether they lived in or outside the household was collected. Information on whether these were participants’ natural children, stepchildren, adopted or fostered children was also collected. The term ‘child’ here refers to the relationship with the participant and does not distinguish whether that child is an adult. The number of children was calculated separately for men and women. Table 2A.6 shows that 80% of men and 83% of women have biological children, while 10% of men and 6% of women have stepchildren (in addition to any biological, adopted or fostered children). The proportion of men and women that report having either adopted or fostered children is very small. At the same time, 16% of men and 14% of women report having no children.

The number of children alive, and of these the number living with the parents, has important implications for social relationships and social support. Living arrangements are an important determinant of health and mortality, particularly for the age groups that are the focus of ELSA. In the age range covered by ELSA, changes in living arrangements are likely to arise for two main reasons. Since our respondents are aged 52 and over, many of their children might have moved away or be in the process of moving away from home. At the same time, older respondents might be losing their spouses or partners due to widowhood.

The analyses of living arrangements (living with children) show that 64% of men and 69% of women have children (including step, adopted and fostered), but live in households without children. On the other hand, 21% of men and 17% of women live with at least one of their children. The results show a clear age pattern. Younger respondents are more likely to be living with some of their children. For example, nearly half the men and women aged 52–54 live with at least one of their children, compared with 6% of men and 9% of women aged 80 years or over. The proportion of people not living with their children increases rapidly with age, which could be a consequence of children moving out of the parental household. (Table 2A.7) This age difference in living arrangements with children could arise from the fact that the respondents in the younger age groups still live with children who have not yet left the parental home, while the respondents in the older groups live with children who might have moved in again in order to help the elderly parent.

Analyses of living arrangements by wealth show a distinctive wealth distribution for people aged 75 years and over who live with at least one of their children. A high percentage of this group are in the poorest quintile while a low percentage is in the richest (Table 2A.8). It is beyond the scope of this report to explore further whether this is the result of lack of alternatives forcing poorer old people to live with their family, or a reflection of choice.

On average, ELSA core members live in households of 2 people, with men living in slightly larger households than women. There is a strong age gradient

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1This analysis is based on individuals. Average household size, using the household as the unit of analysis, would be smaller than this.
in mean size of household as older generations are more likely to live alone and less likely to live in either two-person or larger households. Only one in seven men and women aged 55–59 live alone compared with over one in three men and over two in three women aged 80 years and over. The difference in percentages of men and women living in households larger than two persons drops dramatically over successively older groups, tying in with the earlier results shown for living with children. (Table 2A.9)

Household size was also analysed taking into account the wealth of the respondent (Table 2A.10). As expected from earlier results for marital status and living with children, one-member households are concentrated among the poorest two quintiles, but interestingly, the larger households are distributed relatively evenly across the wealth quintiles. However, the patterns vary markedly according to age. The shortfall in larger households in the poorest quintiles is greater for the younger than the older groups, i.e. at the ages when children might still be living in the parental household. At age 75 years and over, there is a shift such that the richest rather than the poorest are under-represented in larger households. This could arise if poorer people were more likely to start living again with children, but this time with the children as carers.

**Demographic change**

In this section we focus on changes in marital status, living arrangements and household size. Since most ELSA respondents have completed their fertility cycle, we expect the change in the number of children of ELSA respondents to be negligible. However, as cross-sectional analyses suggest, there are likely to be changes in whether ELSA members live with their children. Together with the change in marital status, this has direct implications for change in household size and composition.

Table 2A.11 reports the change in household size from wave 1 (2002–03) to wave 2 (2004–05). Over these two years the household size of ELSA members became smaller. For example, there was a decrease in household size for 13% of men and 11% of women compared with an increase for only 5% of men and 4% of women. While there is very little gender difference in the change of household size, the differences across ages are clear – the biggest decrease or increase in the household size is seen among those aged 52–64 years. This decline in household size among the younger groups can mostly be explained by children moving out of the parental household. At the same time, increase in life expectancy and widowhood are the main reasons for the increasing number of older people living alone where previously they had lived with others (Grundy et al., 2004; Grundy, 1999). Similar trends have been observed in other European countries such as Denmark and Germany. In these analyses, we are not attempting to explore the full dynamics of changing household structure and we can note that there are many forms that the change in structure can take, such as changes in marital and cohabitation status; children moving out; partner dying; children moving in with a frail parent, and so on. As these are very important questions investigate, particularly for these age groups, future research should be focused on them.
Table 2A.12 shows the change in marital status from wave 1 (2002–03) to wave 2 (2004–05) by age for both sexes combined. Only 4% changed marital status during this two-year period: 2% became widowed, 1% married and less than 1% divorced. As expected, the group of people most likely to become widowed are those aged 75 or more, while divorces and marriages are most likely among those aged 52–64 years. The absolute level of change, however, was small due to the period being short.

Table 2A.13 reports the change in living arrangements due to children moving into, or out of, the household between waves 1 and 2 by the age of the respondents in 2002–03. Most of the ‘moving in’ and ‘moving out’ pattern was observed among ELSA respondents aged 52–64 years, where less than 4% of the respondents had children who moved into the household and 10% had children who moved out.

Analysis of change in living arrangements was also conducted by age-specific wealth. Table 2A.14 shows the change in living arrangements (children moving into or out of the household) by age-specific wealth quintiles and age of respondents. A higher proportion of people in the poorer wealth categories live in households where children moved in, while more people in the richer wealth categories live in households where children had moved out. This is consistent with the data shown in Table 2A.8, where people living with at least one of their children are increasingly likely to be in the poorer quintiles at successively older ages, and also with Table 2A.10, which shows a greater concentration of people in the poorer quintiles living in one-member households.

The number of ELSA respondents reported dead between waves 1 and 2 was 509. Table 2A.15 shows the percentage of mortality of ELSA respondents between waves 1 and 2, by age and sex. There is a strong age gradient in the proportion of people who died; e.g., with age, the mortality rates went up and there were more deaths in the older groups. For example, nearly 17% of men aged 75 years older in 2002–03 died, compared with a little over 1% of those aged 50–59. Furthermore, as expected, a higher percentage of men died than women (5% and 4% respectively). The mortality analysis was also done by wealth and the results are presented in Table 2A.16. The results show a strong gradient in mortality rates by wealth. For example, the proportion of people who died between these two waves were mostly from the lowest wealth quintile and this pattern is consistent across all age groups. Nearly 8% of those in the lowest wealth quintile died, compared with just 3% among those in the highest wealth quintile.

2.3 Conclusion

Much of the incentive for conducting studies that focus on old age populations comes from the fact that during the last century the proportion of people who were categorised as ‘elderly’ has increased dramatically. Mortality rates are continuously decreasing, particularly in old age. Especially in developed countries, populations are ageing rapidly. It is therefore increasingly important to investigate the relationships between different socio-demographic factors and health and mortality.
This chapter described the demographic characteristics of the ELSA population in 2004–05 and the demographic changes it has undergone during the average period of 27 months between interviews. The age-related patterns of individual change found in this chapter include the increase in widowhood, the decrease in probability of living with a spouse or partner, children moving out of households more frequently than into, and, as a consequence, a decrease in the average number of people who live in a household. These are very important factors in determining the health, mortality and a number of other aspects in the lives of elderly people.

Our findings once more point out the imbalance in the numbers of men and women surviving to old age. They also show that ELSA is researching generations where marriage predominated and continues to do so into late ages for men, although widowed status becomes common for women by the age of 75. This reminds us of an important consequence of the higher survival rate of women than of men. Analysis of cohabitation also shows an age and sex difference. The proportion of old people living with a partner is small compared with the proportion for younger people. Also, as for marriage, men are more likely than women to be cohabiting.

The existence of living children, whether a natural child or not, was analysed for both men and women. Most people have natural children and while the proportions having adopted, fostered and stepchildren are quite small for these cohorts, it is worth noting that the proportions with stepchildren among those aged 55–64 is about one in ten, reflecting the changes from lifetime partners to divorce and remarriage.

Analysis of living arrangements shows that over 60% of the ELSA population lives in households without any of their children. A relatively small proportion reports living with children in the household and this proportion falls dramatically with age. Most people live in either one- or two-person households. The size of household declines with age. It was found that 83% of men and 85% of women were living in households of the same size in 2002–03 and 2004–05 and about 12% in smaller households. The elderly in Britain have tended to live in small households over the last several decades. However, it is interesting to note that at least nine out of ten of those aged 65 and over in 2004–05 were in a household of the same size in both waves, illustrating that most change happens at a younger age. While this does not rule out some change in household composition, it suggests that it is worth exploring the stability of household composition at older ages over longer periods, as this could reflect a wish of the elderly to stay in their own homes and to retain their independence.

The differences associated with economic circumstances (age-adjusted wealth) have been presented throughout the chapter. Married people are more likely to be wealthy than those who are single, divorced, separated or widowed. Respondents who live in one-person household are also more likely to be poorer. A higher proportion of people in the poorer wealth categories lives in households where children moved in, while more people in the richer wealth categories live in households where children have ‘moved out’. Finally, a strong gradient in mortality rates by wealth shows more deaths among those in the poorest wealth quintile than among those in the richest wealth quintile.
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References


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