

## 2. Socio-demographic characteristics

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

- Marriage was highly prevalent in the cohorts studied here, but at younger ages, living with a partner became more common.
- Among people reported as having children, the most common number of children was two, with the proportion of people who reported having one child increasing with age.
- Only a small proportion of people in the population aged 50 or over have one or more children living in the household. This proportion declined with age.
- The prevalence of most socio-demographic characteristics covered in this chapter showed differences by education and occupation. Men and women in managerial and professional occupations, or who have attained higher levels of education, were more likely to be married or to be living with a partner, to have more children and to have parents who were still alive.
- In many of the socio-demographic aspects analysed, the differences related to education and occupation were greater at younger ages.

ELSA is a study of people aged 50 or over and provides a rich source for exploring issues relating to ageing that are important both for scientific understanding and for policy analysis. It offers a unique opportunity in Britain for the study of a range of topics necessary to understand the economic, social, psychological and health elements of the ageing process and to inform policy in these areas. The increase in life expectancy, as well as the demographic shift, has raised questions about population trends in disability, the impact on health services, the need for long-term care, trends in the workforce, changes in productive activities after retirement, and appropriate pension and other economic arrangements.

This chapter gives an overview of the demographic characteristics of the ELSA population, such as age and sex, as well as other socio-demographic variables, including marital status, household composition, living arrangements, ethnicity, education and occupational class. The results are presented at both individual and household levels. This helps to create a larger picture about each respondent and the household in which the respondent lives. It also describes some of the outcomes that are used as a basis for analyses in other chapters and provides a starting point for many research

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questions, including comparative 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 analyses have been carried out in this report. There is a large literature focusing on sex differences in health and mortality. While different authors argue on 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).

Marital status has also been found to influence health and mortality. Married people have significantly better health and a lower mortality than their single counterparts (Smith and Zick, 1994). These results are particularly strong for men (Lillard and Panis, 1996; Hu and Goldman, 1990). A number of studies (Korenman and Goldman, 1993; Goldman, Korenman and Weinstein, 1995; Mineau, Smith and Bean, 2002) have found that widowed, divorced and never married individuals were more likely to die than married people. In the case of the ELSA survey, it has been particularly important to look at changes in marital status with time. As people age and die, there is an increase in the proportion of widows and widowers. This can bring economic, social, psychological and other changes. Cohabitation has been another area on which the ELSA study has focused. This has been regarded as important because of an increase in cohabitation that could be reflected in the cohorts of the ELSA population.

Among other factors, living arrangements, family ties, relationship and support are also thought to be of particular importance for health and mortality, especially at older ages. The influence or presence of family could have a positive effect in terms of the well-being of the older person 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 the last decades. However, few studies have investigated the general impact of living arrangements on health and survival. Patterns have changed substantially in the last two decades, with more older adults living alone as they age. As living alone becomes more 'normative', 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, in consequence, of health and mortality. These are of great importance at old age, especially when it is associated with a reduction in physical functioning and widowhood. 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. The number of children in itself does not necessarily equate with meaningful help and support, so the association with mortality reflects inconsistent trends (Bowling, 1994).

Few studies have analysed the presence of siblings and the effect on mortality. Bowling (1994) found an association with longevity and the number of live siblings.

Ethnic background has been identified as one of the factors that influence health and mortality. A number of studies have shown the influence of ethnic and cultural background on health and have pointed to the facts that disease and mortality are functions of social culture as well as of class, and that different diseases prevail in different cultures (Cruickshank and Beevers, 1989; Nazroo, 1997).

Education has been widely perceived as one of the most important socio-economic determinants of health and mortality. There is considerable evidence that low educational attainment is strongly correlated with diseases, health risks and mortality (Winkleby et al., 1992). It has been suggested that education affects health and mortality through a number of pathways, such as lifestyle, health behaviour, problem-solving abilities, social relations, self-esteem and stress-management, as well as through income or occupation (Elo and Preston, 1996; Pappas et al., 1993). Research from a number of countries has shown that this effect is present even at older ages (Martelin, Koskinen and Valkonen, 1998; Silventoinen and Lahelma, 2002).

Social class is typically used in sociology as a central theoretical concept indicating the individual's location in the social stratification system and access to material resources, influence and information. Social class is thought to affect health and mortality in many ways: by influencing attitudes, beliefs and values people use to make life-course choices and by influencing life-course opportunities. The literature portrays a strikingly strong relationship between an individual's place in the social structure of the society and his/her health status and mortality. Different studies have demonstrated clearly that even small social class differences can strongly affect health and mortality (Marmot, Shipley and Rose, 1984; Pamuk, 1985; Wilkinson, 1996; Marmot and Wilkinson, 1999). Researchers have also concluded that socio-economic circumstances, nutrition and infections early in life have major effects on adult mortality (Notkola et al., 1985; Elo and Preston, 1992; Nystrom, 1992; Lundberg, 1993).

ELSA, as a rich source of data, will provide the opportunity to explore in detail the demographic and social characteristics of the population and shed more light on the factors that could affect health and mortality at old age.

## **2.1 Measures**

In ELSA's main interview, information regarding age, sex, marital status, ethnic background and number of children, grandchildren and great-grandchildren was asked for, together with the number of siblings, educational attainment, occupational characteristics and information concerning ELSA respondents' parents and socio-economic circumstances in childhood. Finally, information on household size, relationships in the household and living arrangements was collected. The general information was collected both at the household and at the individual level.

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It is important to point out here that the information on household characteristics and relations in the household were collected first in the household module and recorded in the household grid. In particular, the data regarding relationships in the household, living arrangements and number of children was obtained from the household grid. Each ELSA respondent was then asked individually about a number of demographic characteristics. The results presented in this chapter and in the tables in the Annex to it combine information from both the household grid and the individual questionnaire.

Age and sex, as the main demographic characteristics, were collected first in the household module and then in the individual one. Age, which was initially recorded in exact years, was then regrouped into 10-year and 5-year age groups for the purposes of the analyses.

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; widowed.

The term ‘cohabitation’ is used here to describe whether the single, divorced or widowed respondent is living with a partner or not. 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. Cohabitation was not, however, defined in terms of the legal marital status of the respondent.

The predetermined response options regarding the relationships in the household were: husband/wife; partner/cohabitee; 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 had any living children (response options: yes/no), how many they had and, if they had children living outside the household, whether they were 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.

Questions were also asked about whether respondents had any grandchildren and great-grandchildren (response options: yes/no) and, if yes, the number of living grandchildren and great-grandchildren. Similarly, respondents were asked how many brothers and/or sisters they had. Questions about whether respondents had any grandchildren, great-grandchildren or siblings, as well as their number, were asked in the individual questionnaire. The household grid was only used to establish whether any of the grandchildren, great-grandchildren or siblings were living in the same household as the ELSA respondent.

Information was collected on whether parents were still alive or dead (response options: yes/no). Where the parents were dead, the age at death (in

years) and the cause of death (response options: cancer; heart attack, stroke, other cardiovascular-related illness, respiratory disease; none of these) were recorded. Where a parent was still alive, the parent's current age (in years) was recorded.

Respondents were asked with whom they lived during most of their childhood. The following list of response options was given to the respondent: both natural parents; natural mother and stepfather; natural father and stepmother; natural mother; natural father; step-parents; foster parents; adoptive parents; grandparent(s), sibling(s) or other relative; children's home; other. Information on the main occupation of the father (or the main carer if the respondent did not live with the father or if the father was dead) when the respondent was 14 years old was also collected.

When asking about ethnicity or the cultural group to which the respondent considered him/herself to belong, the response options given to the respondent were: white; mixed ethnic group; black; black British; Asian; Asian British; any other group.

Respondents were also asked about educational attainment – whether they had attained any further qualifications since they were last interviewed as part of the Health Survey for England (HSE) interview. In cases where the answer was yes, or if there was no information from the HSE, respondents were given a predetermined list of response options from which to choose.

Finally, a series of questions were asked about the occupation of the ELSA respondent. Based primarily on this information, occupational categories were drawn and a socio-economic (NS-SEC – see below) classification was then derived. (It is worth noting that the full set of questions about occupation was only asked if the information was not available from an earlier HSE interview with the respondent or if they had subsequently changed jobs. Wherever possible, the occupation recorded at HSE was checked and, if still current, was used to determine the occupational status of the respondent.)

The first wave of ELSA included a number of 'harmonised' questions about occupation and employment status, which have been agreed by the Office for National Statistics (ONS) and allow for the derivation of several important classifications that are used in official statistics. The most basic occupational classification collected in ELSA is the Standard Occupational Classification (SOC), which was updated by ONS from SOC90 to SOC2000. The key socio-economic variable, which is reported extensively here, is the National Statistics Socio-Economic Classification (NS-SEC). This indicator replaced the Registrar General's Social Class (RGSC) and the Socio-Economic Group (SEG) in 2001. These classifications are based on occupation, in combination with employment status and in some circumstances size of workplace (Donkin, Yuan and Toson, 2002).

Three different summaries of NS-SEC are available in the ELSA data. The first is an eight-category variable (higher managerial and professional; lower managerial and professional; intermediate; small employers and own-account workers; lower supervisory and technical; semi-routine; routine; never worked and long-term unemployment). The second is a five-category variable (managerial and professional; intermediate; small employers and own-account

workers; lower supervisory and technical; semi-routine). The last is a three-category variable (managerial and professional; intermediate; routine and manual).

## 2.2 Results

### Age and sex composition

In the ELSA population, 46.4% are men and 53.6% are women. This is expected in a population above the age of 50, where women outnumber men as a result of higher survival rates at these ages. For analysis purposes, the population has been regrouped into 5-year age groups with the exception of the highest group, which is open-ended. The mean age of the ELSA population is 65, and the maximum age is 100. The largest proportion of the survey population is in the younger age groups, with age group 50–54 having the greatest number of people for both sexes (20.9% for men and 18.5% for women) (Table 2A.1). The population distribution is more skewed to the left at the younger ages for men than for women, reflecting the weighting strategy which ensured that the ELSA population had a similar distribution to the population of England from the 2001 census.

**Figure 2.1. ELSA's population age pyramid**

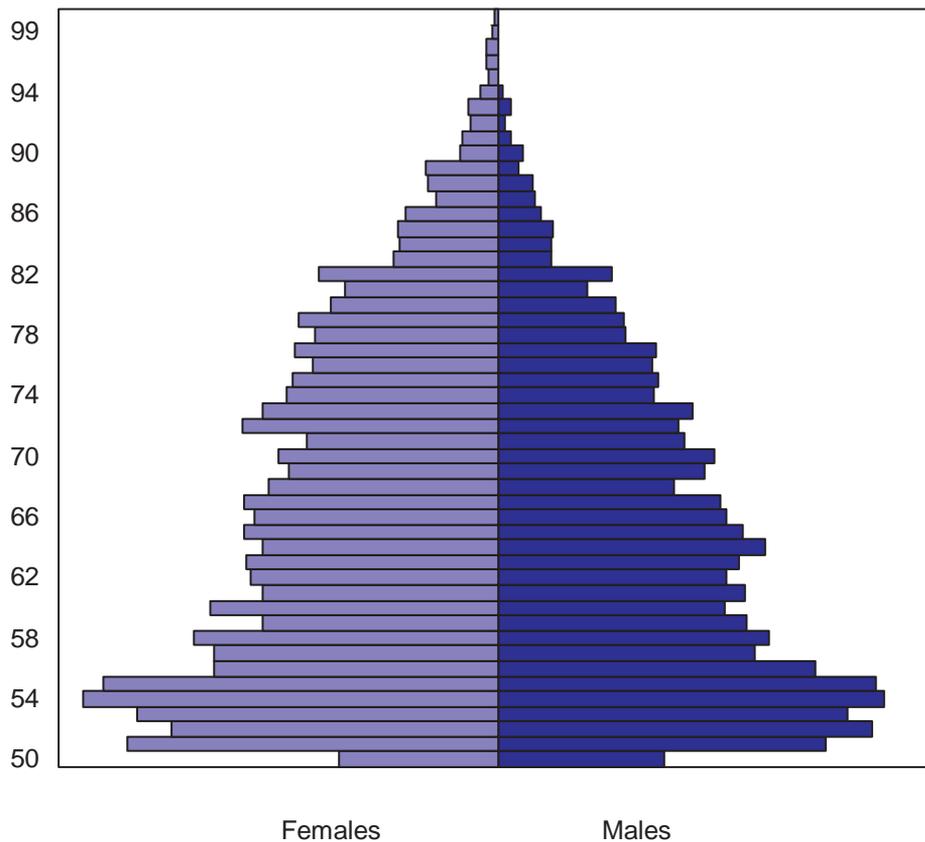


Figure 2.1 shows the population age pyramid for the ELSA population. The number of women who survive to old age is clearly larger than the number of men and, reflecting the characteristics of the whole British population, the influence of the baby boom after the Second World War is evident, with more people concentrated at ages 53 to 55, 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 has now slightly diminished. 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 long-lasting 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. In particular, the effect of mortality might be selective and thus affect one cohort more than another.

The number of the oldest old in the sample is small – only 3% of the ELSA sample is aged 85 or over. On the one hand, the small number of the oldest old in the sample might limit separate analyses of them as a group. On the other hand, they are, in the short term, a very important group and the early cross-sectional analyses that are being conducted will provide immediate lessons for policy, theoretical development and the design of future waves. In the first wave of ELSA, 11.8% of respondents are aged 80 or older. Although a focus on this age group is not a central part of the study, the data will provide an important resource in carrying out analyses of this age group and the changes it experiences over time.

### **Ethnic composition**

With regards to ethnic composition, the ELSA population is very homogeneous. There are two main reasons why this could be so. Firstly, ethnic minorities in England tend to be younger, reflecting the timing of and the age at past migration. In addition, people who do not speak English were excluded from the HSE sample and, as a result, are virtually absent from ELSA.

In all age groups and for both sexes, the ‘white’ category is by far the largest. In total, 96.5% of the men and 97.7% of the women are white. The second largest group is Asian for men (1.7%) and black or Asian for women (both 0.9%). There are, however, slightly more in other ethnic groups at younger ages. For example, the proportion of Asians is 2.3% for men aged 50–54 and 0.2% for men aged 80 and over. These proportions for women are respectively 1.6% and 0.1%. (Table 2A.5)

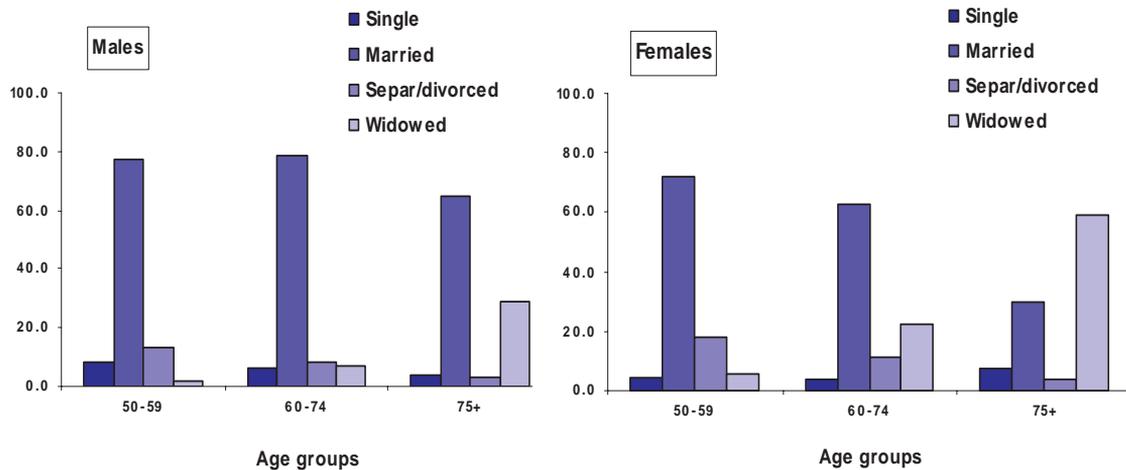
### **Marital status**

The population data split by marital status show that 62.1% of men and 49.4% of women are married (first and only marriage); 12.8% of men and 9% of women are remarried; 6.6% of men and 4.9% of women are single (never married); 9.4% of men and 11.2% of women are either separated or divorced; and 9% of men and 25.5% of women are widowed (Figure 2.2, Table 2A.2). This is a pattern that might be expected in this cohort and in these age groups. Among married people (either first and only marriage or remarriage), there is a larger proportion of men than of women. This is not unexpected, as it mainly

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reflects the age difference at marriage – women tend to marry older men. This automatically increases the proportion of women who are widowed, as their partners would, on average, be older than them and also because female survival is higher than male. There is not much difference between men and women in the percentages of separated and divorced individuals. It is notable that these cohorts have some of the highest proportions of married people in the past 50 years, and the proportion of people who have never married is lower than among other groups.

**Figure 2.2. ELSA’s population, by marital status, age and sex**



Not surprisingly, the single are more concentrated in the younger age groups (50–59) and the widowed (men or women) are mostly concentrated at older ages (ages 75 and over) (Figure 2.2). Single people are almost equally distributed between the two sexes, while the widowed are mostly women. This result is expected and can be explained by higher female survival rates. However, some interesting disparities are found by age. Thus for men, the largest proportion who never married is found among young ages (50–59), while for women, this is found in the oldest ages (75 and over). For men, the most married cohort is the 60- to 64-year-old cohort, and for women, it is the 55–59 cohort. The proportion of women who are widows is nearly three times the proportion of men who are widowers. The differences are very clear for all age groups, as can be seen in Table 2A.2. There are very few widows and widowers at the young ages. In all age groups, there are more widows than widowers but the difference is especially clear in older age groups. The proportion of widows at ages 65 and over is much higher than the proportion of widowers at these ages. Over a third of men aged 80 or over are widowers (38.3%) and more than two-thirds of women of this age are widows (71.5%). This shows a clear selection effect in survival.

When marital status is analysed by education (categories: degree or other higher educational qualification, intermediate level, no qualifications) and sex, it is interesting that while for men there is variation in marital status by education level, for women this either does not exist or is not very clear. Thus, the proportion of married men increases with the level of education. 83.4% of men with a degree or other higher educational qualification are married, 77.8%

of men with an intermediate level of education are married and 67.6% of those with no qualification are married. This probably has to do with the fact that marriage is a selective process. This is also supported by the fact that the proportion of never-married men is highest among the people with no qualification. In the group of men with no qualification, 9.4% have never married, compared with 5.6% in the group of men with the highest qualification (degree or other higher educational qualification). (Table 2A.15)

When marital status is analysed by the NS-SEC three-category occupational classification (managerial and professional, intermediate, and routine and manual, as in NS-SEC), some patterns of variation are found among men but not among women. This is probably related to the fact that the occupation data for older ages, in particular the very old, might reflect true occupation for men more than it does for women, because men in these age groups have been in longer employment and their occupation is a better indicator of their lifelong employment. On the other hand, for women in these age groups, occupation is probably not an indicator of lifelong employment and occupational class. The occupation category by marital status behaves in the same way as for education: the higher the type of occupation, the larger the proportion of married men. For example, there are 68.1% married and 13.0% remarried men in the managerial and professional occupations, compared with 58.4% married and 11.7% remarried men in routine and manual occupations. The opposite is found for the proportion of single people, whose proportion is higher among the men employed in routine and manual occupations. The percentage of widowers also increases with lower levels of occupation. For example, while there are 6.8% widowed men and 16.9% widowed women in the managerial and professional occupations, these proportions increase to 11.1% widowed men and 28.3% widowed women in routine and manual occupations. (Table 2A.16)

### **Cohabitation – living with a partner**

Cohabitation with a partner was analysed using data from the first wave of ELSA; the information on whether people were or were not living with a partner was obtained from the data collected in the household grid. As mentioned earlier, information on cohabitation was collected separately from legal marital status. Thus it reflects whether a single, divorced, separated or widowed respondent is living with or without a partner.

Cohabitation is to some extent a recent phenomenon and high levels of cohabitation would be unexpected in a population as old as this one. Table 2A.3 shows that 4.1% of the men and 2.8% of the women are living with a partner. The proportion of people who do not live with a partner is 22.3% for men and 39.6% for women. The figures show clear age and gender differences, and the proportion of people who live with a partner becomes smaller at older ages. For example, while 7.8% of men and 6.1% of women aged 50–54 report living with a partner, these proportions for people aged 80 or over are only 0.6% and 0.3% respectively. Conversely, the proportion of people who do not live with a partner becomes larger with age. So 17.2% of men and 22.6% of women aged 50–54 do not report living with a partner. The proportion of people aged 80 or over who do not live with a partner is much

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larger: 44.3% for men and 81.8% for women. This could, of course, be as a result of widowhood and the fact that women have a higher survival rate than men. (Table 2A.3)

Table 2A.4 shows the proportions of non-married people who are or are not living with a partner. Out of all non-married people, it is clear that men are more likely than women – and younger people are more likely than older people – to live with a partner. For example, 3.1% of non-married men and 0.7% of non-married women are single and report living with a partner; 10.0% of non-married men and 4.8% of non-married women are divorced or separated and report living with a partner; and 1.4% of non-married men and 0.8% of non-married women are widowed and report living with a partner. The proportions for all the above-mentioned categories except widowed people reduce dramatically with age. (Table 2A.4)

Looking at the results of the analyses of married and non-married people who report living or not living with a partner and their educational status, it is clear that for both sexes, but especially for men, the proportion of people that live with a partner decreases with the fall in educational attainment. Thus, 81.7% of men and 63.4% of women who have a degree or other higher educational qualification live with a spouse, 4.4% of men and 3.2% of women who have a degree or other higher educational qualification live with someone to whom they are not married, and 13.9% of men and 33.3% of women who have a degree or other higher educational qualification do not live with a partner or spouse. The proportions for people who do not have any qualifications and report living with either a spouse or partner are smaller. In this group, 66.7% of men and 51.5% of women live with a spouse, 3.0% of men and 1.8% of women live with a partner, and 30.4% of men and 46.8% of women do not live with a spouse or partner. (Table 2A.17)

Similarly, Table 2A.19 shows that respondents in the highest occupational position (managerial and professional) report the highest proportions of either living with a spouse (79.8% of the men and 60.4% of the women) or living with a partner (4.6% of the men and 4.1% of the women), while respondents in the lowest occupational position (routine and manual) report the lowest proportions of either living with a spouse (68.7% of the men and 55.5% of the women) or living with a partner (3.3% of the men and 2.5% of the women). As other studies have shown, these results could be due to a selection effect in marriage, remarriage and cohabitation whereby marriage, remarriage and cohabitation select healthier people as well as people of higher socio-economic status (Goldman, Korenman and Weinstein, 1995).

## **Number of living children**

ELSA respondents were asked about the number of living children and whether they lived in or outside the household. The information on whether these were their natural children, stepchildren, adopted or fostered children was also collected. The information has mostly been derived from the household grid. Information was not collected about the full fertility history of the female respondents. Instead, the number of children reflects the number of children that are alive at the point when the survey was conducted. The information was collected for both male and female respondents and the

results shown here are for both sexes. There are a few reasons that justify this decision. It is important to include men, as here we are interested not only in the fertility history (usually related to female respondents), but also in the number of children alive and the number living with the parents, since this has important implications for social relationships and social support. It should also be pointed out that most people in our sample are married and, because they are living in the same households, most married respondents are married to other ELSA respondents and are likely to 'share' the children among them. When the results are presented by sex, many of the children are included in both male and female data. However, the analyses should not completely exclude men, as some men in the sample are not living with a spouse or a partner, so it is also of interest to analyse this group.

Looking at the type of living children (whether natural, adopted, step or fostered) by age group and gender of the respondent, it is clear that the proportion of natural children is the largest, followed by the proportion of stepchildren. The proportion of adopted or fostered children is very small. 82.9% of men and 85.3% of women have natural children, 10.1% of men and 6.9% of women have stepchildren, 2.8% of men and 2.2% of women have adopted children, and only 0.3% of men and 0.4% of women have foster children. (Table 2A.6)

The total number of living children of all types that each respondent has varies slightly by sex but mostly by age. A large variation by sex is unlikely, because many of the people in the ELSA sample are married to each other, thus sharing the children among them. Differences may, however, come about as a result of male–female differences in reporting the number of children alive, as men tend to under-report. The proportion of people who do not have children is relatively small – 13.9% of men and 12.2% of women. However, when looking at this category by age and sex, some differences are found. 15.5% of men and 10.4% of women aged 50–54 do not have any living children. These proportions for those aged 80 or over are respectively 14.4% and 19.4%. The most prevalent groups are those of people who have two children (37.4% of men and 36.5% of women) and people who have three children (18.9% of men and 20.0% of women). The proportions for these two categories change slightly by gender and age. The proportions of both men and women who have two or three children tend to decrease by age. 41.3% of men and 44.6% of women aged 50–54 have two children, while the proportions for people aged 80 or over are 31.9% of men and 30.5% of women. The proportion of people who have more than three children is quite small. The mean number of children is 2.2 for both men and women. (Table 2A.7)

Table 2A.8 shows the number of natural children who are alive. Again, the sex differences are small but the age differences are clear. For those who have living natural children, the mean number is 1.98 for men and 2.06 for women. However, 19.1% of men and 13.2% of women aged 50–54 have no living natural children, while the proportions for this category for respondents aged 80 and over are 17.4% of men and 21.0% of women. People who have two living natural children make up the largest group for both men (38.7%) and women (37.5%). Looking at this category, it can be seen that the proportion of people who have two living natural children decreases with age. This

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proportion is 43.2% for men and 46.3% for women aged 50–54 and becomes 30.5% for men and 29.7% for women aged 80 and over.

Looking at the total number of living children by educational attainment, it was found that for both sexes, higher educational attainment was associated with a decrease in the number of children. For example, the mean number of living children for men who have attained a degree or other higher educational qualification is 2.20 while this number for women is 2.07. The mean number of living children for men who have no qualifications is 2.25 while this number for women is 2.32 (Table 2A.23). The proportion of people with a degree or other higher educational qualification who have natural children is 84.9% for men and 80.0% for women. The proportion of people with no qualifications who have natural children is 79.7% for men and 85.8% for women (Table 2A.21). Looking more specifically at the total number of living children of all types per person, it is found that the proportion of men with a degree or other higher educational qualification who have two children is 42.7%, while 38.5% of women with a degree or other higher educational qualification have two children. The proportion of people with no qualifications who have two children is 31.4% for men and 31.6% for women. There could be a number of reasons for this pattern. The issue deserves further investigation.

## **Kinship relationships**

ELSA respondents were asked about the number of living siblings. The categories were: no siblings; one sibling; two siblings; three siblings; and four or more siblings. The largest proportion is that of people with one sibling (30.5% of men and 30.4% of women), followed by people with no siblings (21.1% of men and 23.1% of women). The proportions of men and women who have two siblings are respectively 21.0% and 19.4%. There is a clear trend by age in the number of siblings for both men and women. The proportion of people with no siblings increases with age. One would expect this, as some of the respondents are quite old themselves and their older siblings might have died already. For example, only 13.6% of men and 11.7% of women aged 50–54 have no siblings. These proportions are 41.1% and 45.3% respectively for those aged 80 or over. (Table 2A.10)

Since the ELSA population is aged 50 years or over, it is also very important to collect the number of living grandchildren and great-grandchildren. The survey questions do not distinguish between the number of grandchildren and the number of great-grandchildren but asks for these together. The number of grandchildren and great-grandchildren reported here are: none, one, two, three, four to seven, eight or nine, and ten or more. However, as the age distribution and population pyramid of the ELSA sample show, the proportion of older people is quite small. As a result, the number of respondents who do not have grandchildren or great-grandchildren is large: 41.4% of men and 33.0% of women. The second largest group is those with four to seven grandchildren and great-grandchildren (20.1% of men and 23.6% of women). The proportion of respondents who have more than seven grandchildren and great-grandchildren is very small. As expected, there are clear differences by age but to a lesser extent by gender. The proportions of men and women aged 50–54

and have no grandchildren or great-grandchildren are large, at 72.1% and 61.6% respectively. These proportions decrease dramatically with age, as people grow older and their children and grandchildren have their own children. By the age of 80 or over, only 19.3% of the men and 24.2% of the women do not have any grandchildren or great-grandchildren. Meanwhile, the proportion of people who have larger numbers of grandchildren and great-grandchildren increases with age. So only 5.3% of men and 8.7% of women aged 50–54 have four to seven grandchildren and great-grandchildren, whereas 31.7% of men and 27.1% of women aged 80 or over do. (Table 2A.9)

## **Living arrangements**

Living arrangements are an important determinant of health and mortality, particularly for the age groups that are the focus of ELSA. Since our respondents are aged 50 and over, many of their children might have moved, or be in the process of moving, away from home. At the same time, the older respondents might be losing their spouses or partners due to widowhood. This also has important consequences and is associated with changes in living arrangements. As people grow older, their health and physical functioning may deteriorate. Some move in with other younger family members and some move to institutions, bringing other changes in living arrangements. At the same time, it is likely that for those older individuals who experience changes in living arrangements, health and well-being also reflect both past life circumstances and expectations regarding the future.

The analyses of living arrangements (living with children and spouse or partner) show that 62.2% of men and 68.5% of women have children but live in households without children. 7.9% of men and 5.3% of women live with all their children and 16% of men and 14.1% of women live with some 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, 21.8% of men and 16.3% of women aged 50–54 live with all their children. The proportions for men and women aged 80 or over who live with all their children are respectively 1.9% and 2.6%. The proportion of people living without children increases dramatically with age. (Table 2A.32)

The prevalence of living alone increases with age and is higher among women than men. For example, 18.2% of men and 31.4% of women are living alone. Also, 54.9% of men and 46.2% of women are in couples living alone. (Table 2A.33)

The analyses of living arrangements by education (Table 2A.34) and three-category occupational category (Table 2A.35) show that for both men and women, but more so for men, higher educational attainment and higher occupational category are both associated with a lower chance of living alone. This could reflect the fact that – as was shown earlier – people with higher education or occupational status have higher chances of getting married or cohabiting. For example, 66.9% of the men and 53.8% of the women who have a degree or other higher educational qualification live with a partner and no other adult. These proportions are 55.8% and 43.4% respectively for people with no qualifications. (Table 2A.34)

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Following up on this discussion, household size was also calculated, by educational attainment, age group and sex of the respondent (Table 2A.36) and by NS-SEC occupational category, age group and sex of the respondent (Table 2A.37). Here, too, it was found that the higher the education attained, the lower the chance that people live alone. For example, 11.6% of men with a degree or other higher educational qualification live alone (in a household that has only one person), while the proportion of women with a degree or other higher educational qualification who live alone is 26.1%. The proportion of men with no qualifications who live alone is 25.0%, while the proportion of women in the same category who live alone is 37.4%. The proportion of men with a degree or other higher educational qualification who live in a household of two people is 58.1%, compared with 53.2% for women. These proportions are smaller for people with no qualifications: 55.6% for men and 49.1% for women. (Table 2A.36)

Similarly, people in a higher occupational category are more likely to live in a household with at least one other person. This is especially so for men. (Table 2A.37)

### **Education and occupational status**

Most ELSA respondents have not achieved a high educational qualification. This is expected for people of these age groups. People with no qualifications are the largest group for both men (36.6%) and women (48.9%). Looking across age groups for both sexes, it is clear that younger respondents have achieved higher educational levels than older ones. This is so for both sexes. For example, men aged 50–54 that have achieved A-level qualifications make up 30.3% of the people in this age group, while the proportion for women is 20.2%. Looking at people aged 80 or over, it is evident that the proportion of people that achieved A-level qualifications is small – 9.7% for men and 9.1% for women. However, some gender differences can be seen, especially at the younger ages. At all ages, men have achieved higher levels of qualifications than women of the same age. (Table 2A.11)

Looking at the educational attainment by the three-category occupational classification, one can clearly see the gradient: the higher the occupational category, the higher the proportion of people that have achieved higher educational levels. This finding applies for all age groups and for both sexes. For example, 40.5% of men and 33.8% of women aged 50–59 who are in managerial and professional positions have obtained a degree or other higher educational qualification. Only 3.7% of the men and 1.8% of the women aged 50–59 and doing routine and manual work have obtained a degree or other higher educational qualification. (Table 2A.14)

Looking at the five-category occupational classification, there are some age differences and even stronger gender differences by occupation. 35.1% of the men and 21.9% of the women are in managerial and professional positions, while 28.3% of the men and 40.7% of the women are working in semi-routine occupations. The largest male–female differences are found in the oldest age groups, which could reflect changes that have occurred in employment, with women entering more into professions that used to be almost exclusively male. (Table 2A.12)

## **Parental histories**

Each respondent was asked whether their parents were alive or dead. The age at death and cause of death were also collected. The analyses show that 20.2% of men and 19.2% of women have mothers who are still alive. The percentage of people whose fathers are still alive (7.6% for both men and women) is smaller, due to lower survival of men than of women. The proportions of people whose parents are still alive are, as expected, higher in the younger age groups. (Table 2A.25)

It is interesting to point out here that people whose parents are still alive tend to be better qualified or to be in higher occupations. 28.4% of men with a degree or other higher educational qualification have a mother alive and 12.7% of that category have a father alive. The proportion of women with a degree or other higher educational qualification whose mother is alive is 26.6% and whose father is alive is 12.2%. However, the proportions for people with no qualifications are smaller: they are respectively 12.6% and 3.2% for men and 12.2% and 4.2% for women. (Table 2A.28)

Similarly, the proportions of men in managerial and professional positions whose mother/father is alive are 25.1%/9.7%, while the proportions for women in the same category are respectively 25.1% and 10.4%. The proportions for men and women in the routine and manual occupational categories are 16.0% and 5.6% for men and 15.8% and 5.9% for women. (Table 2A.29)

Analyses of parents' longevity, their cause of death and age at death, in particular by the respondent's socio-economic status, could point to interesting explanations of health and mortality. Therefore this issue merits further and more profound analysis.

## **2.3 Conclusion**

We are living in an era of continuous improvements in mortality and increased life expectancy. Populations are ageing throughout the world, but especially in developed countries. Investigating the relationships between different socio-demographic factors and health is becoming of greater importance as people age. As a result, this is one of the issues on which many researchers and policy-makers are now focusing. The age-related patterns that are found in this chapter include the increase in widowhood, the decrease in probability of living with a spouse or partner, and the decrease in the average number of people who live in a household. These are very important factors in determining health, mortality and a number of other aspects in the life of elderly people. ELSA is unique as a source of data and information, since there are few data sources that combine such a large and multi-dimensional amount of information regarding people at old ages.

Throughout the chapter, the analyses were carried out by age and sex, in order to point out the gender and age differences. The proportion of people who were married was high, although this proportion became smaller with increasing age as widowed status became more prevalent. At the same time,

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the larger number of widows than of widowers showed once again the higher survival rate of women than of men.

Analyses of cohabitation also showed an age and sex disparity. The proportion of old people living with a partner was small compared with the proportion for younger people. Also, men were more likely than women to be cohabiting.

The number of living children was analysed for both men and women. People with natural children were the largest group, while the proportions having adopted, fostered and stepchildren were quite small. There was a clear age difference in the proportion of people who had two or three children of any type, this proportion decreasing with age. Looking just at the number of natural children alive, it was also found that the proportion with two or three decreased with age.

Kinship relationships are important, particularly at old ages, because of their effects on mortality and well-being. Over three-quarters of ELSA respondents reported having at least one living sibling. There were some age differences in the number of siblings, the proportions of people who report having living siblings declining with age. At the same time, more than half of ELSA respondents reported having grand children and great-grandchildren.

The analyses of living arrangements showed that more than three-quarters of the ELSA population lives in households without children. A relatively small proportion reported living with children in the household, and this proportion fell dramatically with age.

The differences associated with socio-economic status (educational attainment and occupational classification) were presented throughout the chapter. Marital status differed by educational attainment of the respondent and so did cohabitation with a partner. More highly educated people were more likely either to be married or to live with a partner.

The number of children varied with educational attainment for women but not for men. The mean number of children per woman was lower for those with a degree or other higher educational qualification than for those with no qualifications. A similar pattern was found when analyses were carried out by occupational classification.

Living arrangements also differed by educational attainment and occupational category. People with higher educational attainments or who were in a higher occupational category were less likely to live alone. The effect was attenuated for women.

Another interesting finding was that people with higher educational attainment or who had higher occupational positions were more likely to have parents alive.

These findings all provide an important starting point for further analyses using the ELSA data.

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