# Long-term Care in Denmark

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In Denmark, life expectancy at birth is projected to increase from 83 to 87 for women over the next 30 years, and from just below 80 to almost 85 for men. This development follows up on a substantial increase in life expectancy since the 1950s. At the same time, fertility rates have been declining since the 1960s, with the largest dip in the 1980s, when the total fertility rate (TFR) was around 1.4. Since the early 1990s, TFR has been relatively stable, at about 1.7-1.8, below the required level for securing a constant population size. The upshot is that the population is aging in Denmark, as in many other countries, with increasing life expectancy and low TFR together implying an increasing share of elderly in the total population. This is potentially putting the Danish welfare state under pressure, particularly the pension and health care sectors, including long-term care (LTC) for the elderly.

Figures 1 and 2 illustrate trends in life expectancy and aging of the Danish population. The analysis here and throughout the paper considers two broad age groups, namely, those aged 65 and above, respectively 85 and above. Figure 1 shows that the share of the population above 65 years of age has risen from 14 percent in 1980 to 20 percent today. Projections indicate that the share of individuals aged 65+ will rise to around one quarter by 2040-2050. Moreover, population forecasts suggest that life expectancy at 65 has risen significantly, especially since the early 2000s, and more than one in five people can at the age of 65 expect to live beyond the age of 85 by the middle of the century. From Figure 2, it is expected that by 2050, more than one in five among the elderly population (65+) will be older than 85. Forecasts suggest that relative to the full population, the proportion aged 85 or older will be rising from around 2 percent in 2020 to more than 5 percent by 2050. These trends may challenge the long-term care system in Denmark if the rising proportion of elderly 85+ is leading to an increasing number of elderly requiring assistance, and relatively fewer working people to finance these expenditures in the coming years.

Much of the public debate in recent years in Denmark has revolved around the pension system. The increasing share of elderly in the total population is more of a challenge to public finances if it implies an increasing ratio of the number of non-working elderly to the total working population. Although projections show that the (absolute) labor force size will keep increasing throughout the century, from currently 3 million persons in 2020 to slightly above 3.6 million by 2100, the labor force as a percentage of the population is expected to decline in the coming years, from its current level of almost 53 percent to under 50 percent in 2040. This has led to several reforms of the Danish pension system. First, there is a trend towards later retirement, resulting from various retirement reforms enabled by the Welfare Agreement from 2006 and the Retirement Reform from 2011 and enacted since 2014. The reforms have raised the early and normal retirement ages and starting from 2030 will index them to increases in life expectancy (The Danish Economic Council's Autumn 2021 report). As a result, the labor force is expected to start rising

again. This labor force pattern, referred to as the demographic “hammock,” is a result of smaller working cohorts replacing larger retiring cohorts in the coming years, until the reversal of the “U” secured by later retirement in the future. By the end of the century, the labor force will constitute about 52.5 percent of the population again, despite a smaller “hammock” that will follow through 2060-2080.

The indexation of retirement age to life expectancy is targeting an expected retirement period of 14.5 years for all cohorts. A second measure is the introduction of mandatory employer-administered defined contribution plans that are intended to supplement public pensions and will surpass the latter in financial importance by 2040, starting from amounting to less than 10 percent of public pension expenditures in 1980. Together, later retirement and the partial privatization of the pension system have helped secure a surplus on projected government budgets through the end of the century. At the same time, later retirement implies fewer opportunities for older workers to provide informal care to the oldest old. For example, if an individual aged 65 is working instead of retiring, there is less time to care for a 90 year old parent, say, so more formal care may be required, again putting public finances under pressure.

The projections of government budgets rely on a number of assumptions regarding the use of the health care system, and budgets will be challenged if health care expenditures grow faster than expected. The growth of health care expenditures is affected by growing life expectancy and the generational effect of the baby boomers, healthy aging, and “steepening” of health expenditures due to an increased chronic diseases burden, or greater demand for health care as incomes of the elderly increase, and they make up a larger fraction of the voting population and the market. Healthy aging works in the opposite direction and, at every age, will exert a downward pressure on health expenditures. Health expenditures can grow faster than predicted due to increased availability of new and costly technologies combined with difficulties in prioritizing, lack of productivity growth in the health care sector and a shortage of personnel, leading to wage increases, increased demand for quality in health care, increases in the share of elderly in the population and their use of the health care system, and later retirement of children who could otherwise provide informal care. These issues have played an increasing role in the public debate in Denmark in recent years. One challenge is that there is not a single, simple rule, such as the indexation of retirement age to life expectancy in the pension case, that could apply throughout the health sector, so the search for adequate policy measures for controlling expenditures is ongoing.

While total government expenditures in Denmark have constituted a constant share of GDP since the 1980s, at about 25 percent, the health expenditure share has been rising, from 6 percent of GDP in 1995 to 7 percent in 2019. Indeed, health expenditures have grown more than what demographic changes and an affluence adjustment would require, while other public expenditures have grown less. The main increase in health expenditures took place in the first decade of the 2000s (see Christensen et al, 2016), while there has been a slight fall over the last 10 years. This is mainly the result of a 2010 law on better control over public finances and the establishment of expenditure ceilings at the municipal, regional, and national level (*Genopretningsaftale*, 2010). However, the changes in demography, technology, and demand for educated personnel and quality care make adherence to expenditure ceilings a challenge going forward. While existing prognoses for government expenditures indicate that they will decline as share of GDP, to about 22 percent in 2100, if the current trend of 1995-2019 is to continue, health expenditures are expected to increase, to about 8-10 percent of GDP by 2100. This is sustainable as long as retirement ages keep increasing over time, in line with the retirement reforms, but not if health expenditures increase more than expected. Kollerup et al. (2022) document steepening of health care expenditures in Denmark, in that the

increase in per capita health care expenditures with age is rising over time, and advocate that the phenomenon should be added to future health care expenditure forecasts. Their analysis leaves out the LTC component of expenditures, suggesting that the steepening problem may be even more severe with LTC expenditures included. Indeed, other analyses have indicated that the steep age profile in total health expenditures is driven in particular by LTC expenditures, in a manner consistent with the hypothesis that proximity to death rather than age is the main determinant of expenditures (see The Danish Economic Council Report, Autumn 2020). Thus, further attention to LTC expenditures is called for. The present paper offers one step in this direction.

In recent years, recruitment of personnel for the health care sector, especially for the LTC sector, has proven increasingly difficult. LTC institutions suffer from a high rate of personnel turnover, and currently policies to improve working conditions and salaries are on the political agenda. A report from Local Government Denmark (KL, an interest organization for the 98 Danish municipalities) from 2021 shows that by 2030, the demand for social- and health care helpers (nursing assistants) will exceed the supply by 16,000 persons if current enrollment levels persist. This is expected to occur even when accounting for healthy aging in the health cost projections via a time-to-death correction. The policy implication is that apart from boosting enrollment, increasing efforts should be made to recruit and retain students in the education programs for health care personnel. Non-completion rates from social- and healthcare helper educations were found to be 36 percent among students who enrolled in the program within a 9-year window after graduating from high school in 2002 or 2003, representing 16 percent who were still enrolled (censored observations), and 20 percent who were no longer enrolled (Stratton et al., 2018). The present government has accordingly announced a plan to increase the practical training wage for social- and healthcare helpers who are enrolled in the program by between 5,942 and 7,213 DKK (USD 780-950) monthly, a 50% increase on average, depending on the age and experience levels of the students at the time of entering the educational program. Similar challenges, and planned policy measures, relate to social- and health care assistants (licensed practical nurses) and registered nurses.

Further, while these steps are aimed at maintaining current standards, the public debate has revealed an increasing attention towards the quality of care provided. A recent Danish survey shows that people are willing to make additional out-of-pocket payments to supplement the care provided for free by the municipality, see Amilon et al. (2022). Presumably, an increase in quality of care will require both an increase in the education level of care givers, and a further increase in wages and salaries. These effects could well contribute to faster long-term care expenditure growth than so far projected.

This paper discusses the demographic and socioeconomic situation of the elderly in Denmark. The focus is on the health status and financial situation of the elderly, and on long-term care in particular. We rely on a combination of survey data, mainly from the Survey of Health and Retirement in Europe (SHARE), and high-quality register data covering the entire Danish population. SHARE is a national representative biennial survey that is now collected in 28 European countries and Israel. We focus on SHARE wave 6 from 2015 and wave 7 from 2017. The wave 6 data have been merged to register data at the individual level, allowing us to use information on income, wealth, and other socioeconomic information based on administrative records rather than self-reported information.

We find that a large fraction of the elderly is in a fairly favorable health situation, but that those in the older age group, 85+, face considerably more functional limitations in daily living. The younger group, 65+, enjoys

higher incomes than the older, presumably due both to higher labor market participation and the reforms of the pension system, as well as higher median wealth, excluding pension wealth, possibly because older individuals have spent down more of their initial wealth. However, the younger group faces more wealth inequality, too, which may be related to outstanding mortgage debt. We document that higher income and higher wealth are associated with fewer limitations and better health. Self-reported well-being is relatively high, although less so for the 85+ group than the 65+ group, and for those with functional limitations.

Regarding long-term care, expenditures increased as share of GDP until 2010, and has remained relatively stable since then. One in three of the elderly receives some form of long-term care, and more than half the 85+ group. Of those with two or more functional limitations, 70 percent receive LTC, and nearly 90 percent of the 85+ year olds. Some of this care is provided in nursing homes and residential care facilities, which are in effect end stations in Denmark, with long, terminal stays, more than two years at the median.[1] About 3.6 percent of the elderly live in nursing homes, and 17 percent of the older subgroup. The availability of beds/slots varies considerably across the municipalities offering formal care, between one and 22 beds per 100 elderly. The older group receives more formal care than the younger. Home care is both formal, largely publicly provided, and informal, provided by relatives, friends, etc. The institutional share of care, relative to home care, has increased from 54 percent in 2010 to 57 percent in 2019. Both publicly provided home-based care and nursing homes involve an out-of-pocket (OOP) element, of about 10 percent of expenses. Less than 1 percent of the elderly have private LTC insurance. Individuals receiving home care typically receive only a few hours of care per week, about three hours at the median, and 4.5 hours for the 85+ year olds, but more than 25 hours per week at the 95$^{th}$ percentile for both age groups. Individuals with up to two functional limitations in most cases rely on informal care, only. The relatively low number of hours of help received by a large portion of the elderly is consistent with their relatively favorable overall health condition. The relatively low number of hours of informal care offered in many cases is consistent with the labor market situation in Denmark, with high female participation rates, and many workers retiring late, especially following the pension reforms, i.e., there is simply less time left for care of older relatives.

Regarding employees in the long-term care sector, about 40 percent hold a formal education targeting this. Registered nurses earn annual wages comparable to the median across all workers in all industries, but clearly fall short of those with college education. Earnings of licensed practical nurses and nursing assistants are at the level of workers without a high school degree. These formal care workers, including registered nurses, as well, are primarily women. In contrast, informal care providers are both women and men, typically slightly older, and most often a child or an unpaid friend or neighbor of the care recipient. The relatively low wages and unattractive working conditions in the formal long-term care sector contributes to the recruiting problems and upward pressure on wages, both for attracting and retaining workers. It has been suggested that immigrants could fill some of the positions in the sector. However, language is a barrier because these jobs involve a high degree of personal contact, and many of the elderly care recipients have poor foreign language skills. Further, to the extent that other OECD countries face the similar problems as Denmark, it is not automatic to attract the required number of qualified immigrants to this sector. The Danish labor market model requires that immigrants be offered the same wages and working conditions as domestic workers, implying that there are no easy cost reductions along this route. In addition, the long-term care sector has been one of relatively low productivity growth, and automatization

[1] Bom et al. (2023) compares the drivers of nursing home admissions across Denmark, the Netherlands and the US.

can be expected largely to be supplementing rather than saving on labor over the foreseeable future. Together, these challenges add up to an increased risk of faster growth in long-term care expenditures than projected.

Informal care in recipients' home, provided by family, friends, neighbors, etc., is offered voluntarily, and generally unpaid. Nevertheless, informal care represents an opportunity cost to society, as time spent providing this could have been spent on other (productive) activities, or in leisure. Therefore, we finally undertake a calculation of the full cost of long-term care in Denmark, including an imputed value of informal care. Given the measurement problems associated with calculating hours of informal care provided as well as valuing time spent on informal care activities, we emphasize that the imputation lies within a fairly broad band. However, we find that the value of informal care is of an order of magnitude comparable to that of formal home care, between one fifth and one third of total costs of long-term care.

The remainder of the paper is laid out as follows. In Part I, we investigate the interaction between functional limitations and the financial situation and well-being of the elderly. Limitations studied include Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). In Part II, we discuss the organization of long-term care in Denmark, including the division between institutionalized care and home care, and the combination of formal and informal provision of home care, and we offer evidence on the workforce in the long-term care sector. Part III discusses costs of long-term care, including the imputed value of informal care. Part IV concludes. Details on data and methods are provided in the Appendix.

## Part I: Aging, Functional Limitations, and Well-Being

This section discusses the socioeconomic and health situation of the elderly in Denmark.

### *Sample and Definitions*

The data used in this paper come from the Survey of Health and Retirement in Europe (SHARE) for Denmark, from wave 6 of 2015 and wave 7 of 2017. SHARE has been collected since 2004 (wave 1), with Denmark participating in all waves. SHARE is collected for a population of individuals aged 50 and older. We focus in our analyses on individuals who were 65 years or older in 2015. For more information on SHARE, we refer to a general/common SHARE description in the other chapters of this volume.

Wave 6 of the SHARE survey data for Denmark have been linked to Danish administrative register data at the individual level for the majority of individuals in SHARE. Danish register data is a longitudinal data set for the entire Danish population. It includes all Danes from birth until death, and it allows for family links through the general population register. This means that we can identify children and grandchildren of our population and find information, e.g., on education and employment of offspring.[2] Information on income and wealth reported in this paper are from tax registers. The advantage of this is that the information is not self-reported, but usually reported by employers, pension funds, public authorities, etc. The registers also contain information on health care and use of long-term care reported by the health care sector and public authorities providing formal long-term care. The register data furthermore allow us to document socioeconomic as well as educational background and wages for employees in the long-term care sector.

[2] Family links are not complete for individuals born before 1935.

We mainly base our analysis of health in this paper on functional limitations, a self-reported measure included in SHARE.[3] The limitations include Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). ADLs capture self-reported difficulties carrying out the following six activities: Using the toilet, getting dressed, taking a bath, walking across a room, eating, and getting in/out of bed. IADLs are self-reported measures of difficulties related to using a phone, managing money, taking medicine as prescribed, shopping for groceries, preparing a meal, and reading a map. Respondents were asked to exclude any difficulties they expected to last for less than three months.

Population shares with different numbers of limitations with respect to activities of daily living (ADLs and IADLs) are shown in Table 1, for each of the two age groups considered. From the table, there are considerable differences between the distributions of limitations for people aged 65+ and 85+. For the 65+ population, about 4 in 5 have 0 ADLs and 0 IADLs, and 91 percent have at most one limitation, while 9 percent have 2 or more ADLS. For the 85+ population, only half the fraction, 2 in 5, have 0 ADLs and IADLs, while about 1 in 3 (32 percent) reports of difficulties carrying out two or more everyday activities. Our findings are consistent with frailty studies finding that health deteriorates by 2-5 percent per year for individuals in Western countries (for Europe, see Abeliansky and Strulik, 2018). For Denmark, the rates of aging based on a health deficit index measure including ADLs and IADLs from SHARE data have been found to be 3.2 percent per year for men and 3 percent for women (The Danish Economic Council, 2021). It should be noted that the response rate for the 85+ population is fairly low. Only 302 individuals above 85 years of age have responded in SHARE, and it is highly likely that there is somewhat higher attrition among those with more limitations. Therefore, population weights have been used on SHARE data in Tables 1, 2, and 5.[4] Furthermore, nursing home residents have been weighted to match population shares.

Table 2 provides more details on which activities the elderly find most difficult. The results suggest that among IADLs, the most prevalent difficulties are related to managing money and shopping for groceries, but also preparing meals, and reading a map. Among ADLs, the dominant difficulties are related to taking a bath and getting dressed, but also functional limitations, such as getting in/out of bed, and walking across a room. In all cases, prevalence is at least three times higher in the 85+ group, compared to the 65+ group, and in some cases much more.

Table 3 shows well-being for the elderly using SHARE data, waves 6 and 7. Nursing home residents are included and weighted to match population shares. We find that almost three in four of the 65+ group self-report that their health is good or very good, while only just above half of the 85+ group self-report such good health levels. However, there is considerable heterogeneity among the elderly, as persons with 3+ ADLs are substantially less likely to report that their health is good or very good. Similarly, life satisfaction in retirement is fairly high, but less so for elderly with 3+ ADLs. More than 1 in 5 of individuals in the 65+ group reports having been sad or depressed within the last month, and this is more than one quarter in the

[3] Our linked survey-register data will allow us to compare self-reported measures in SHARE with more objective measures of health care use from the register data. For example, a frailty index based on ADLs and IADLs (such as in The Danish Economic Council, Autumn, 2021) can be compared to an index of diagnoses based on register data. Population data will also allow exploring heterogeneity with respect to gender, education, etc. We leave these analyses for future studies.

[4] Adding SHARE population weights, however, did not change the results much.

65+ group with 3+ ADLs.[5] Overall, the level of well-being is relatively high, based on self-reported health status, but less so for the 85+ group than the 65+ group, for those with functional limitations, or when focusing on sadness and depression.

Overall, the results show that a large fraction of the elderly is in a fairly favorable health situation, although individuals in the older age group face considerably more functional limitations in daily living.

*Well-being*

We next investigate the financial well-being of the elderly. Table 4 shows the distributions of income and wealth for the 65+ and 85+ year olds, respectively. These results are based on register data for the entire population of elderly. Income here is disposable income, including transfers and net of taxes, measured as equivalent household income using the OECD scale. The income distributions in the two left columns show that income at all percentiles is considerably lower for the 85+ than the 65+ year olds, reflecting not only that some fraction of those aged 65+ are still working, but also that private pension schemes are more prevalent among the younger cohorts of elderly, while a relatively larger share of the 85+ year olds rely exclusively on public pensions (ATP, 2019). We also observe a greater dispersion in income among the older group of 85+ than among the younger, with income at the 5$^{th}$ percentile for the older group barely half of that for the younger, reflecting perhaps the more widespread employer-administered pension schemes across the entire labor market since the late 1980s. More information about public and private pension schemes is provided in Part II.

Table 4, right columns, shows the distributions of net wealth in 2015, which includes financial assets and housing wealth minus liabilities/debt, but not pension wealth.[6] The table reveals an unequal distribution in net wealth, with negative wealth in the lowest deciles of the group of 65+, but not for the 85+ year olds. First of all, renters may incur debt without having positive assets. Moreover, housing wealth is by far the largest source of assets in Denmark, and largely financed by mortgage debt. After the financial crisis, housing values went down, and some households experienced negative net wealth. This affects the 65+ group, whereas the 85+ group tends to have paid off their mortgage debt. Further, median wealth for the 85+ group is only three quarters of that of the 65+ group, consistent with the older group having run down some of their wealth over time, possibly due to their less attractive pension plans.

Table 5 shows the income and wealth distributions for individuals reporting 0, 1, and 2+ ADLs, respectively. For individuals with 2+ ADLS, the likelihood of being in a lower-income and lower-wealth group is much higher than for the group reporting 0 ADLs. This indicates that people with higher income and wealth are generally in better shape. Similarly, individuals with fewer ADLs and IADLs are more likely to be in the groups having 150+ percent of median income, or 200+ percent of median wealth. These results surely in

[5] The combination of linked SHARE survey and register data will allow us in future studies to compare self-reported depression with detailed information in registers about diagnoses and who is receiving medication or other treatment for depression.

[6] Net wealth is defined as the sum of financial assets (bank accounts, stocks, and bonds) plus housing wealth minus liabilities/debt. Housing wealth is measured using the tax-assessed value of people's home, scaled with the average ratio between market values of traded houses and the tax-assessed value of these, see Browning et al. 2013. Pension wealth is not included.

part reflect an age profile, as older individuals are likely to have spent down more of their wealth (see Table 4), and have more limitations (Tables 1 and 2).

All in all, the results indicate fairly high levels of both objective financial and self-reported levels of well-being, although lower in the older subgroup, and for those in poorer health. Furthermore, the results are consistent with the pension reforms, with more widespread employer-administered schemes, having had a real impact on society, in our data benefitting the 65+ group, not the 85+ group.

**Part II: Long-Term Care System in Denmark**

Long-term care is either provided as informal care, by family and friends, or as formal care, which is for the main part provided and financed by the municipalities. Care can be provided in the recipient's own home, or in a nursing home, or residential care facility. Home care can take the form of either personal care or practical help.

*Public Insurance*

Some form of publicly subsidized long-term care has been in place in Denmark for more than 125 years. Before that time period, in early and mid-19th century Denmark, impoverished elderly who did not have the means to finance their own care were relegated to poorhouses (*fattiggården),* where they were given room and board in exchange for their (often very hard) labour, and where their free mobility and other rights were restricted, i.e., almost prison-like conditions.[7] For the wealthy, private foundations ran old-age homes even at that time. However, in April 1891, the watershed Law on Old Age Support (*Alderdomsunderstøttelse*) guaranteed the right of public support to elderly over 60 with care needs who in the last 10 years had not received any form of poverty assistance. In 1933, a large social reform strengthened the principles of individual rights to receiving aid.[8]

In the years that followed, the sector flourished, and about 500 municipality-run old age homes were established, increasing to about 1000 municipal homes and 400 private homes in 1970 (Rasmussen, 2012). In 1988, legislation was passed to put a stop to the building of any new municipality nursing home or residential care facilities (protected housing) and instead to promote the building of elderly apartments, emphasizing the living needs of the elderly rather than health needs and equating the elderly's housing needs to that of any other group in society. Thus, the policy is to keep the elderly in their own home for as long as possible, perhaps in housing for the elderly, if necessary with home care. Consequently, since the 1970s, the number of nursing home slots and institutions has experienced a decline. In 2007, 78,553 persons above the age of 60 were registered as residing in nursing homes, protected housing, sheltered housing units, or co-housing schemes. In 2022, that number was 66,976, i.e., a 15 percent decline over 15 years.[9] This decline has occurred in the face of rising life expectancy over the same period. Both men and

[7] Fattighus - Wikipedia, den frie encyklopædi; https://www.svendborgmuseum.dk/om-museet/fattiggardens-historie.

[8] http://www.socialhistorie.dk/socialreformen-1933.php.

[9] Indskrevne i pleje- og ældreboliger efter område, alder og foranstaltningsart - Statistikbanken - data og tal.

women in Denmark have gained 3 years more in average life expectancy between 2007 and 2022, 76 to 79 for men and 80 to 83 for women.[10]

Long-term care in Denmark is mainly provided by the public sector, and more specifically by the municipalities (of which there are 98 across the country). Around 950 municipality nursing homes and 75 approved private nursing homes serve the needs of the elderly requiring institutional care. Core LTC activities are provided by the municipalities, which are responsible for taking care of patients after hospital stays (training and rehabilitation activities), for nursing homes, and for home care, home nursing, etc.

By far the majority of all costs of LTC in Denmark are covered by public finance (general taxes). While the elderly who move into a nursing home or residential care facility need to pay a price corresponding to the value of the housing and meals provided (this fee is means-tested and thus varies across the elderly), the municipalities offer a substantial subsidy to nursing homes and residential care and are responsible for financing health services and care. The charge for room-and-board before subsidization is around 10,000 DKK per month, to which a means-tested subsidy applies (*boligstøtte*).

Municipalities are responsible for allocating slots in nursing homes and residential care facilities based on a waiting list and a needs assessment system. According to the Social Service Law (*Lov om social service, Bekendtgørelse om plejehjem og beskyttede boliger*), all elderly residents who are no longer able to live independently in their own homes are eligible for a slot in either a public nursing home, protected housing, sheltered housing unit, or co-housing scheme. Eligibility is determined after visitation in the individual's municipality of residence, initiated either by the individual themselves or by the municipality. Once eligibility is established, the municipality council is required by law to offer a slot within a period of two months.

Moreover, municipalities are obliged to subsidize (finance) and supply formal home care to the elderly. This care consists of a combination of personal care and practical help (cleaning, shopping, and preparing a light meal). The elderly can choose a municipal supplier or a supplier from a private firm. In the latter case, the municipality subsidizes the care provided by the private firm.

All individuals in Denmark are eligible for old-age pension from a certain age, irrespective of possible private pension schemes.[11] Moreover, everyone has access to free publicly provided health care. User costs in health care constitute a small part of individual health care expenditures, the only exceptions being prescription medicine (which is subsidized, but with a partial out-of-pocket payment by the patient), dentist expenditures (partly subsidized), and psychotherapy.

*Private Insurance*

[10] Middellevetid – Danmarks Statistik (dst.dk).

[11] In 2022, the public old-age pension (*folkepension*) was 10,347 DKK per month ($1,380) for individuals living in marriage or cohabitation, and 14,019 DKK per month ($1,870) for singles. People on old-age pension are allowed to work, but deductions in pension are made if earnings exceed a certain level. From July 2022, individuals born after 1955 can receive public old-age pension from the age of 67, while individuals born from 1967 and onwards can retire and receive old-age pension from age 69. Sources: Danish Ministry of Employment, https://bm.dk/satser/satser-for-2022/folkepension/ and Ældresagen https://www.aeldresagen.dk/viden-og-raadgivning/vaerd-at-vide/f/folkepension-og-foertidspension/folkepension/ansoegning.

While private health insurance historically has played a very limited role, the proportion of Danes having additional private health insurance has been rising steeply over the last two decades. Thus, while only 4 percent of the population had a private health insurance plan in 2003, this number had risen to almost 40 percent by 2020.

However, private insurance for long-term care is still very rare, and information about such schemes is limited.[12] According to information from SHARE, waves 6 and 7, shown in Table 6, 0.9 percent of the 65+ population responded that they have private insurance for long-term care.[13] This is based on 24 responses out of 2,630 and should thus be interpreted with care. Due to the very limited sample in SHARE reporting having private insurance for LTC, the information about socioeconomic background for this group is limited. A comparison of respondents with and without private LTC insurance (unreported) suggests that it is to a greater extent those with higher income and wealth and receiving formal and/or informal care who have private LTC insurance, consistent with the notion that self-insurance of expenses not covered by the public sector is more likely adopted by individuals in worse financial situations or in less need of care.

*Key Reforms and Policy Questions*

Here, we briefly touch upon the key reforms that have been enacted in the LTC area over the last 50 years, and point out some of the pressing policy issues that are currently being discussed.

In the decades after the Second World War, the Nordic countries led the world in expanding tax-funded universal public LTC. In the 1970s and 1980s, the responsibility of LTC was moved from the regions to the municipalities. Faced with a growing number of elderly putting pressure on pay-as-you-go systems, the general trend since the 1990s in most of the Nordic welfare states has been on increasing efficiency in elder care via various New Public Management (NPM) style reforms and initiatives (Vabø et al., 2021). The main focus has been on decentralization of management practices and some elements of wage bargaining, enhancing cost-effectiveness in LTC provision, requiring involvement of family and volunteer organisations in sharing care responsibilities, and facilitating increased cooperation and coordination with the health care system.

In Denmark, despite the fact that the number of municipalities was reduced with the 2007 Structural Reform, from 271 to the current 98, the focus has been on moving the care administration even more to the local levels, through a series of recent reforms in the Social Service Act, intended to strengthen the elderly's own role and participation in their care management, and to enhance rehabilitation. This points to a new era emerging within LTC, of new public governance (NPG), based on collaboration across sectors.

[12]Recently, Tryg, the largest non-life insurer in Scandinavia, has issued a new 'care insurance' product with a premium level of 190 DKK per month, marketed towards mainly the adult children of individuals over 70. This insurance covers extra expenditures related to illness, hospitalization, or diagnoses.

[13] The question used for this analysis is based on a question in SHARE corresponding to the variable HC116_LongTermCareInsurance. SHARE asks the following question: "Do you have any of the following public or private long-term care insurances?" and explains that "Long-term care insurance helps cover the cost of long-term care. It generally covers home care, assisted living, adult daycare, respite care, hospice care, and stays in nursing homes or residential care facilities. Some of the long term care services might be covered by your health insurance." We count people who respond that they have this type of insurance as a private voluntary/supplementary insurance.

Another new development since 2007 is that private nursing homes and elderly housing are now allowed to operate in Denmark (*Friplejeboligloven*) for the purpose of giving the elderly more choice in terms of their living arrangements. A report from VIVE based on a 2015 questionnaire to nursing home directors combined with scores from 2014-2016 audit reports found little difference between public and private nursing home care quality, measured according to both structural and process quality parameters (Hjelmar et al., 2016).

KL, Local Government Denmark, the interest organization of the 98 municipalities, in a recent white paper (KL, November 2021) point to a number of areas where the quality of LTC in Denmark can be further enhanced and made sustainable for the long term. Some points that particularly relate to our analysis are those of increasing recruitment and retention of qualified personnel, strengthening the collaboration with the health care sector, and increasing cooperation and participation of family members, which is part of informal care. Additional recommendations include ensuring continuity of care through self-organized teams, simplifying the quality assurance system, reducing documentation requirements, increasing qualified management at local levels and life-long learning opportunities, and employing assistive technologies and digital solutions for enhancing quality of life and independence of the elderly, and enabling a better and more effective working environment for the employed in the sector. The latter should support recruitment and retention in the sector, as well.

Overall, increased reliance on informal care, based on collaboration and participation, holds a promise of contributing to keeping costs down, but feasibility is challenged by the high female labor force participation rate and later retirement, and cost increases stemming from wage and quality demands in the formal sector threaten to become major issues, going forward.

*Expenditures on Long-Term Care*

As evidenced by Figure 3, expenditures for long term care have been rising from a level just above 1 percent of GDP in the late 1990s to above 2 percent of GDP by 2010, then remained approximately constant at this level since 2010, according to data from OECD and Statistics Denmark that are comparable across countries. These data include expenditure on home-based care, nursing homes, and residential care facilities with nursing.

Figure 4 shows that 90 percent of the costs of long-term care are financed via public expenditures, while households finance the remaining 10 percent. Figure 5 shows a rising role for institutional care over the last decade, relative to home-based public care, with 57 percent of total public care costs stemming from institutional care by 2019. Figure 6 shows that both home care and nursing home and residential care stays are partly financed by out-of-pocket payments, accounting for around 10 percent of total costs in both cases. Room and board are included for nursing homes and residential care facilities. The results indicate that the policy of keeping people in their own home for as long as possible, if necessary with home care, is under challenge.

*Long-Term Care Receipt*

Informal care is reported in SHARE, where respondents were asked if they receive help from family or friends, who provided help, and how often. SHARE wave 6 does not report number of hours. Instead, respondents report how often they received help. Categories are daily, weekly, monthly, and less often. These questions were asked for up to three helpers. We impute average hours of informal care for each frequency using information on hours provided in SHARE waves 1 and 2.[14]

Formal home care is in general provided and financed by the municipalities. The number of hours of formal care provided is decided by municipal administrators based on an assessment of the needs of the elderly person. Information on home care received is found in the register data which have information at the individual level about hours delivered to each person, both in the form of personal care and practical help. The elderly may supplement care supplied by the municipalities with private services, e.g., private cleaning, or gardening. We do not include such private services below, as we assume that they will typically not be related to needs stemming from functional limitations as measured through ADLs or IADLs.

Table 7 shows the distribution of hours of help received in total, i.e., the sum of formal and informal care as defined as above, for the 65+ and 85+ age groups, respectively. According to SHARE, around one third of the elderly aged 65+ received a positive number of hours of informal care from either members of the household or people from outside the household (adult children, relatives, friends, neighbors). Table 7 only includes hours for individuals with a positive number of care hours received. Conditional on receiving care, we observe that the median number of weekly hours of care is around 3 hours for the 65+ and 4.5 hours for the 85+ year olds. Moreover, the table suggests that there is great dispersion in number of care hours received, with the bottom quartile receiving very limited care, and a large number of hours for the top receivers, more than 25 hours per week at the 95$^{th}$ percentile for both age groups.

For individuals needing intensive care beyond what can be provided in their home, nursing homes and residential care provide alternatives.[15] Over the last decades, the number of traditional nursing home beds has declined, and alternatives such as residential care, which offer more independent housing but still providing some care, have increased in importance. Stays at such facilities are publicly subsidized, with some private costs related to the rent paid and meals received.

Table 8 gives details about stays in nursing homes and residential care facilities. Information about nursing home stays is found in register data from Statistics Denmark. These nursing home stays are of a rather permanent nature, where the individual has changed address permanently to the care facility. Thus, short-term stays in facilities for recreation, training, and rehabilitation, e.g., after a hospital stay, are not recorded in the registers on stays in nursing homes and residential care facilities. According to Table 8, the median duration of a stay is around 790 days, more than two years, and the average stay is around 960 days. In total, almost 30,000 individuals aged 65+ were living in a nursing home or residential care facility in 2016.

The results are consistent with the relatively good health condition of a large share of the elderly in Denmark, in combination with a labor market situation where female participation rates are high, and many workers retire late. Accordingly, many elderly only require relatively few hours of help per week, given their favorable health condition and level of well-being, and relatively few hours of informal help are

[14] See the Appendix for details. A related approach was adopted by Meijer et al. (2022).
[15] Residential care includes independent protected housing for the elderly with additional long-term care supplied (*Beskyttet bolig* and similar facilities). Nursing home and residential care facility residents are excluded from Table 7.

offered by children who are still active on the labor market. Older individuals, and those in poor health, do require help, and some of this is publicly provided formal help, with fairly long, terminal stays in nursing homes for some.

From Table 9, around one third of the 65+ year olds receive some kind of long-term care, i.e., either living in a nursing home, or receiving formal or informal help in the home. This proportion rises to almost two thirds of the 85+ year olds. Care received is increasing in number of ADLs, with more than three quarters of the 65+ and nearly 90 percent of the 85+ group with 3+ ADLs receiving LTC. Furthermore, SHARE data suggests that around 31 percent of the 65+ receive informal care, mainly for practical tasks. SHARE data thus shows that less than 3 percent of the elderly receive informal care in the form of personal care.

For those receiving long-term care, Figure 7 shows the distribution across formal and informal care. The shares of elderly living in a nursing home or receiving both formal and informal care are higher for the 85+ year olds than for the 65+ year olds, reflecting that they need more intensive care. One in ten of the 65+ year olds receiving care is in a nursing home, and one quarter of the 85+ group. The figure furthermore shows that more than three quarters of the 65+ year olds receiving long-term care, and more than half of the 85+ group, rely solely on informal care, suggesting that they do not have access to formal care.

Despite the widespread use of home care, the majority of the elderly receive only a few hours a week of formal home care. This is illustrated in Table 10, which shows the number of hours of both formal home care (subsidized by the municipalities) and informal home care. The table shows that most individuals receive only very few hours of formal care over a week, less than two hours at the median for both the 65+ and the 85+ group. The top 10 percent receive close to 10 hours or more of formal care per week, with the 85+ group receiving slightly more than the 65+ group. The reported numbers for informal help are considerably higher, especially for the 85+ group, with 4 hours of informal care at the median, and for the high end of the 65+ distribution. At the $90^{th}$ percentile, the 65+ year olds receive about 12 hours of informal care per week, and the 85+ year olds about 23 hours. Calculations are based on the number of times of getting help as reported in SHARE, combined with an imputed number of hours per visit (see the Appendix for details).

Figure 8 shows the type of care by number of limitations for each age group. Those with up to 2 ADLs rely primarily on informal care, only. For 2 and more ADLs, other types of care start increasing in number of ADLs, particularly the shares in nursing homes and residential care or receiving both formal and informal care. The pattern across number of ADLs is similar for both age groups, except that the shares of elderly with 3+ ADLs and receiving both formal and informal care or living in a nursing home or residential care facility are higher in the older group.

Table 11 provides information on the availability of nursing homes for the elderly. There are nearly one thousand nursing homes and residential care facilities in Denmark, with more than 40 beds per home on average, of which 92 percent are occupied. About 1 in 10 of 65+ year olds are in the 85+ group, with about 4 percent of 65+ year olds in nursing homes, rising to 17 percent among the 85+ group.

Table 12 shows the availability of beds/slots in nursing homes and residential care facilities, and the corresponding occupancy rates, across the 98 municipalities in Denmark. According to Piil Damm et al. (2022), the elderly are distributed increasingly unevenly across the municipalities. While the 65+ share has been relatively constant in the cities (Copenhagen, or municipalities with more than 45,000 inhabitants), at

around 16 percent, from 1985 to 2019, the share in remote municipalities (where the median inhabitant has more than half an hour's drive to the center of a city of 45,000) has increased, from 16 percent in 1985 (the same as in the cities) to 24 percent in 2019. Table 12 reveals substantial heterogeneity in the availability of beds across municipalities, ranging from 1.3 beds/slots per 100 65+ year olds at the 5$^{th}$ percentile to 22 beds/slots at the 95$^{th}$, but also a fairly low overall coverage, with only 3.6 beds/slots per 100 elderly at the median. This reflects the Danish policy of staying in one's own home for as long as possible, with extensive home care if needed. This policy may be challenged as retirement ages increase, leaving less opportunity to provide informal care.

Overall, the results show that a large fraction of the elderly receive relatively few hours of care per week, consistent with their fairly favorable health situation, and the labor market situation in Denmark. Older individuals, and those in poorer health, receive more care. Formal care is primarily for those in worse health. Institutional care is already increasing in share of total public LTC costs, relative to home-based public care, and this trend could be strengthened as retirement ages rise, leaving the provision of informal care and thus the elderly's staying in their own home more difficult.

*Workforce in LTC Sector*

Next, we consider the workforce in the formal long-term care sector. According to Figure 9, about 40 percent of the employees in long-term care have an education as either nurse or social- and healthcare assistant or –helper. The remaining employees have other education, including no education beyond primary school. The share with relevant education is slightly higher in nursing homes and residential care facilities than in home care services.

Table 13 provides an overview of the level and content of education and training of employees in long-term care. Before 1990, home care workers did not require specific education. After 1990, home care workers are recruited among social- and healthcare helpers (*SOSU or social- og sundhedshjælper*). This education takes 2 years and 2 months. The education is a combination of schooling and practical training. Practical training takes place in home care and nursing homes. The admission criterion is to have passed primary school examinations. Another important group of employees in home care are social- and healthcare assistants (*social- og sundhedsassistent*). This education takes 3 years, 9 months and 3 weeks. The education is partly school based, partly practical training in home care, nursing homes, residential care facilities, hospitals, and psychiatric units. Registered nurses receive the most advanced course based and clinical training among the groups considered.

Table 14 shows hourly and annual wages for professionals working in long term care. Licensed practical nurses correspond to the Danish Social and healthcare assistants, and Nursing assistants to the Danish Social and healthcare helpers. The latter receive the lowest wages of the three groups of professional workers. The third group, Registered nurses, receive the highest wages of the three, almost on par with the annual median wage across all workers in all industries, but clearly falling short of those with at least a college degree. Licensed practical nurses receive annual wages roughly at the level of the group without a high school degree, and Nursing assistants fall short of this. Nursing assistants earn slightly more in nursing homes than in the home healthcare industry, whereas Registered nurses and Licensed practical nurses earn

about the same in both cases. The annual income of a Nursing assistant would put a family of 4 above the poverty line, although not by a wide margin.

The relatively low levels of compensation in the long-term care sector, combined with demanding working conditions, have contributed to the difficulties in recruiting and retaining employees in the sector. This may lead to increasing wages in the future, and the demand for an increase in quality of care and the increased availability of new and expensive technology only reinforce that expenditures could grow faster than projected.

*Who are the Caregivers?*

As previously discussed, home care for the elderly is provided through formal as well as informal care, often in combination. Table 15 shows statistics on the population of caregivers at the national level for both formal and informal caregivers. There are about 40,000 workers employed in formal home care and providing care for the 65+ group. This corresponds to 4 percent of this group, and 1 percent of the working (18 to 65) population. On top of this, there is more than twice the number, almost 85,000 full-time equivalents of people providing informal care. Similarly, nearly 9,000 workers provide formal care for the 85+ group, corresponding to 7 percent of this group receiving formal care from 0.3 percent of the working population. For the 85+ group, informal care is relatively more important, with 40,000 full-time equivalent workers, corresponding to one third of the 85+ population.

Figure 10 shows the demographic composition of employees in the formal home care in the left-hand side of the figure, while figures on the right-hand side shows the demographic composition of informal care providers. Formal care employees are predominantly women (87 percent), and more than half have some college education (this includes the specific educations for the sector), while 15 percent have completed college or beyond. Moreover, around 13 percent are immigrants or descendants. The age distribution is relatively even, with roughly equally many workers in each of the age groups below 30, 30-39, 40-49, and 50-59, but few workers aged 60+, presumably due to early retirement, and virtually no one aged 70+. In contrast, informal care providers are both men and women. Surprisingly perhaps, informal care in general is more often performed by men than women. When zooming in on the informal care activities performed by men and women, in the bottom of Figure 10, we observe that when it comes to personal informal care, around 70 percent is provided by female carers, while the informal care activities dominated by male carers is related to help with paperwork and practical care. Moreover, informal care is to a much larger degree offered by older individuals, including retirees, with nearly one in three helpers aged 60+, suggesting that these people have time to offer informal care, and spouses, relatives and friends etc. who need this. For example, if alive, the parents of a person in the 60+ group are likely to belong to the 85+ group, and thus more likely to require help than, say, the parents of a person in the group aged 49 and below. We furthermore examined the educational background of informal caregivers by using information about education of spouses and children providing informal care. As SHARE reported up to three informal caregivers, and since for care provided by children we do not know the educational background for most of these children from the survey, we use educational background of the children from the registers. If several children provided care, we choose the educational background of the child with least education. This implies that we may underestimate the educational background of caregivers. Still, we find that more than half of all informal care is provided by individuals with some college and above.

As shown in Figure 11, more than one third of informal care is provided by a child of the care recipient, and more than one third by unpaid non-relatives, including friends, neighbors, etc. Other care givers are less common, e.g., spouse, grandchildren, and so on. Care includes both practical help and personal care.

The results indicate a dilemma in terms of policy decisions. Informal care is primarily offered by older individuals, including retirees. With the pension reforms, and the trend towards later retirement, access to informal care may be reduced, thus leading to increased pressure on the formal public care sector. In a sense, there is a tradeoff between pensions and formal care, in terms of public finance. Thus, with the aging population, the pressure on the welfare state is still on.

**Part III: Costs of Long-Term Care**

Expenditures on long-term care comprise a sizeable share of total health care spending in Denmark. Table 16 reviews the public expenditures related to nursing homes, residential care, and home care for the 65+ year olds. In 2019, total public spending for residents in nursing homes and residential care (protected housing for the elderly) was 25 billion DKK, when adjusted to include only the 65+ age group.[16] Spending on formal home care was nearly half of the public expenditure on nursing home and residential care.

As shown in Parts I and II, a substantial part of care in people's home is provided in the form of informal care by family, friends, neighbors, etc. Such care is usually provided voluntarily, unpaid, and as part of general care towards each other in the family, or among friends. Still, the time spent providing informal care represents a cost to society, as this time could have been spent on other (productive) activities, or in leisure. The valuation of the opportunity cost of informal caregivers hinges on numerous assumptions. These are discussed at some length in other chapters of this volume, but we will nevertheless provide a short discussion of the issues involved here, as well.

In principle, assuming perfectly competitive labor markets and market wages equal to the value of leisure, we may value the time spent in informal care by the foregone wage. In this case, the opportunity cost of time is equal to the individual wage, even if the individual does not participate in the labor market, e.g., due to being retired. Table 17 presents two alternatives for valuing hours of informal care. In both cases, if informal care is delivered by those who are working, the care is valued at their predicted wage, based on gender, age, and education. In the same way, we predict employment by gender, age and education of people providing informal care on the basis of administrative register data for a similar population. For the case considered in column 1, time for those not working is valued at zero ("low valuation"). For the case considered in column 2 ("high valuation"), we value informal care time of those who are not working at the replacement cost of home care (the average cost of a home care worker in 2019). We assume that productivity in privately provided long-term care is constant across individuals. Our valuation ranges from $14 billion DKK (low valuation) to 22 billion DKK (high valuation). It should be stressed that this valuation hinges on a number of sensitive assumptions, is primarily thought of as an illustration of the order of magnitude of the value of informal care, and thus the results should be interpreted with care.

[16] This figure includes the privately financed fee paid for room and board in nursing homes and residential care, amounting to about one fifth of total expenditure, with the remainder publicly financed.

Table 18 combines these findings with the previous data on long-term care spending across public and private sources. Most of the costs relating to nursing homes, residential care, and formal home care are publicly financed. The privately financed component corresponds to payments by residents for room and board (meals) in nursing homes and residential care facilities, and OOP payments for additional help (both personal care and practical help) beyond what is publicly covered in home care, whereas the full cost of informal care is privately financed by its providers. From the table, the largest portion of long-term care expenditures consists of public spending on formal care, but with informal care representing a considerable cost to society, too, both according to the conservative valuation method (low valuation), and the method that relies on the higher valuation of informal care (high valuation). Imputations from the two methods put the share of informal care between one fifth and one third of total costs of long-term care.

**Part IV: Conclusions**

Like many other Western countries, the Danish economy faces important challenges as a consequence of an aging population. Over the next three decades, elderly individuals aged 65+ will constitute an increasing proportion of the Danish population, and this is expected to generate an elevated demand for long-term care.

This paper provides evidence on the health state of the elderly, assessed by a number of health measures, but with an emphasis on the ability of the elderly to perform everyday activities. ADL and IADL measures generally point to fairly high functioning levels, but also to a negative association between income and wealth on the one side, and ADL/IADL levels on the other side.

Using a combination of survey data from SHARE and administrative register data, we document the extent of care provided for the elderly. These data show that around one in three of the elderly aged 65+ receive some form of care, with three quarters of these relying solely on informal care from friends or family, while the majority of the elderly are self-reliant, consistent with their relatively good health condition.

Most formal long-term services are provided free-of-charge by the Danish public sector. Such services constitute a substantial part of the economy. Total costs of care, including nursing homes, residential care, and home-based care, have increased from just above one percent of GDP in 1998 to above two percent of GDP in recent years. Further, the public debate has recently shown increasing attention towards the quality of care provided. At the same time, the sectors providing health care and long-term care are increasingly facing recruitment problems, and higher salaries are currently debated politically as a means to address these problems. Going forward, these tendencies could lead to costs of long-term care growing faster than currently projected.

Finally, we impute the total costs of informal care. Despite controversy related to the valuation of the time spent providing informal care to family and friends, we provide evidence of substantial costs to society in terms of potentially lost income and reduced welfare of caregivers, with estimated costs of informal care amounting to between one fifth and one third of total costs of long-term care. In the future, pension reforms that are intended to expand the labor force and keep the elderly working for an extended period of time until they are in their early 70s are likely to put pressure on the provision of informal caregiving. This could challenge the Danish policy of keeping the elderly in their own homes for as long as possible. The share of institutional care in total costs of public long-term care is already rising. Policy makers will thus

increasingly have to consider the balance between, on the one side, securing a large labor supply, also among individuals in their late 60s and early 70s and, on the other side, meeting increasing demands for long-term care with a higher reliance on informal care-giving.

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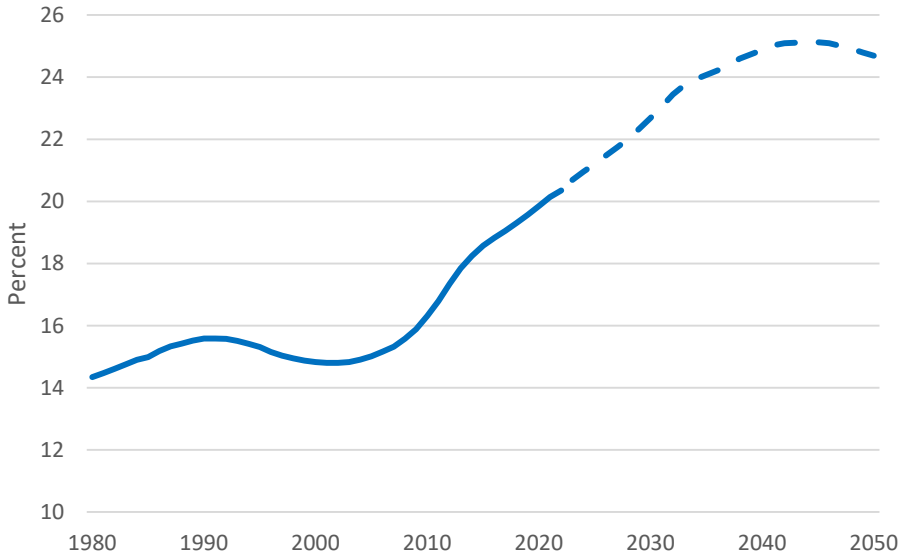
Long-term Care in Denmark - Tables and figures
Date: August 18, 2023.

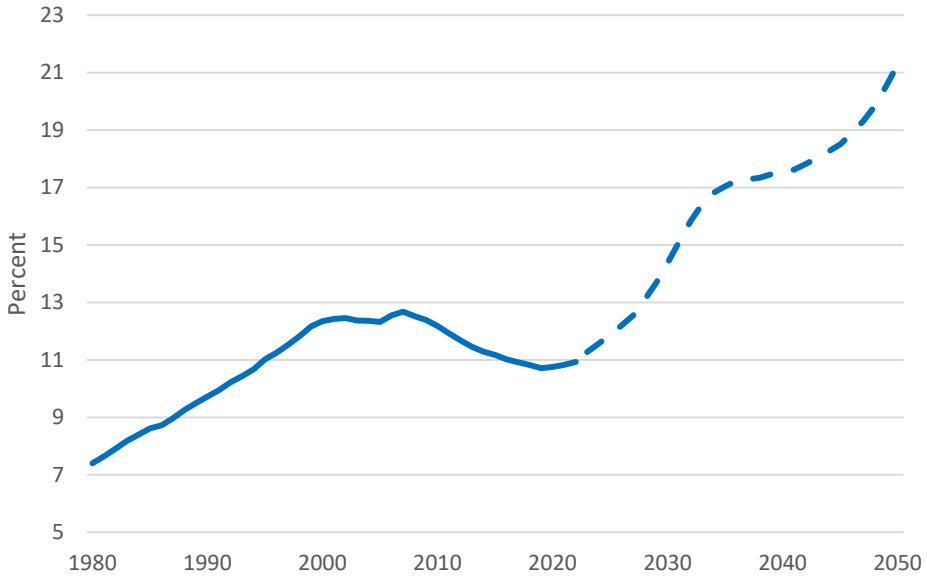
## Part I: Aging, Disability and Well-Being

Figure 1: Percentage of population aged 65 or older
Denmark, 1980-2050




*Source: Statistics Denmark. Historical data (1980-2022) table FOLK2 and forecast (2023-2050) table FRDK120.*

Figure 2: Percentage of 65+ population that is aged 85 or older
Denmark, 1980-2050




*Source: Statistics Denmark. Historical data (1980-2022) table FOLK2 and forecast (2023-2050) table FRDK120.*

Table 1: Share with ADLs by Age.
Denmark, 2015/2017

| | 65+ | 85+ |
|---|---|---|
| 0 ADLs & 0 iADLs | 0.780 | 0.408 |
| 0 ADLs & 1+ iADLs | 0.0751 | 0.164 |
| 1 ADL | 0.0562 | 0.112 |
| 2 ADLs | 0.0276 | 0.0512 |
| 3 ADLs | 0.0206 | 0.104 |
| 4 ADLs | 0.00655 | 0.0198 |
| 5 ADLs | 0.0138 | 0.0264 |
| 6 ADLs | 0.0202 | 0.115 |
| Any ADLs | 0.145 | 0.428 |
| Any iADLs | 0.173 | 0.546 |
| Observations | 3395 | 303 |

*Source: SHARE (waves 6 & 7). SHARE population weights are used, and nursing home residents are weighted to match population in nursing homes.*
*Note: ADLs include walking across a room, dressing, bathing, eating, going to bed, and using the toilet. IADLs include using a telephone, managing money, taking medications as prescribed, shopping for groceries and cooking a hot meal. Respondents were asked to exclude any difficulties they expect to last less than three months.*

Table 2: Distribution of Limitations with Specific ADLs/iADLs.
Denmark, 2015/2017

| | 65+ | 65+ Conditional | 85+ | 85+ Conditional |
|---|---|---|---|---|
| Panel 1 - iADLs: | | | | |
| IADL - Use a Phone | 0.0412 | 0.364 | 0.255 | 0.608 |
| IADL - Manage Money | 0.0948 | 0.785 | 0.389 | 0.864 |
| IADL - Take Meds as Prescr. | 0.0622 | 0.565 | 0.265 | 0.635 |
| IADL - Shop for Groceries | 0.117 | 0.866 | 0.454 | 0.946 |
| IADL - Prepare a Meal | 0.0927 | 0.775 | 0.362 | 0.856 |
| IADL - Read a Map | 0.0902 | 0.699 | 0.352 | 0.798 |
| Observations | 3395 | 244 | 303 | 87 |
| Panel 2 - ADLs: | | | | |
| ADL - Use the Toilet | 0.0420 | 0.445 | 0.160 | 0.495 |
| ADL - Get Dressed | 0.115 | 0.868 | 0.360 | 0.943 |
| ADL - Take a Bath | 0.0895 | 0.870 | 0.338 | 0.952 |
| ADL - Walk Across a Room | 0.0500 | 0.529 | 0.175 | 0.529 |
| ADL - Eat | 0.0334 | 0.359 | 0.196 | 0.610 |
| ADL - Get In/Out of Bed | 0.0492 | 0.520 | 0.172 | 0.521 |
| Observations | 3395 | 208 | 303 | 55 |

*Source: SHARE (waves 6 & 7) SHARE population weights are used, and nursing home residents are weighted to match population in nursing homes.*
*Note: Column 1 shows the share of the sample that reports having difficulties with each activity, while Column 2 shows the share of the sample with at least 1 iADL (panel 1) or at least 1 ADL (panel 2) who report having difficulty with each activity. Respondents were asked to exclude any difficulties they expect to last less than three months.*

Table 3: Well-Being for those aged 65+ and 85+ by ADL limitations.
Denmark, 2015/2017

| | 65+ | 65+ with 3+ Limits | 85+ | 85+with 3+ Limits |
|---|---|---|---|---|
| Reports good or better health status | 0.713 | 0.243 | 0.515 | 0.250 |
| Good life satisfaction for those retired | 0.850 | 0.629 | 0.801 | 0.701 |
| Depressed or sad within the last month | 0.223 | 0.253 | 0.208 | 0.143 |
| Observations | 3408 | 267 | 305 | 84 |

*Source: SHARE (wave 6 & 7) SHARE population weights are used, and nursing home residents are weighted, to match general population in nursing homes (see Appendix).*
*Note: Our limitations index runs from 0-12 and is the number of ADLs/IADLs that are either difficult or not done from eating, bathing, dressing, using the toilet, walking across a room, and getting in/out of bed (ADLs) + using a telephone, managing money, taking medications as prescribed, shopping for groceries, and cooking a hot meal (IADLs). Life satisfaction is reported on a scale from 0 to 10 where 0 means completely dissatisfied and 10 means completely satisfied. Life satisfaction is assumed to be good if the respondent reported 8 or higher. The means for life satisfaction only include people who are retired. The survey asks whether respondents have felt sad or depressed in the last month.*

Table 4: Income and Wealth Distribution.
Denmark, 2019.

| | Income | | Wealth | |
|---|---|---|---|---|
| | 65+ | 85+ | 65+ | 85+ |
| 5th percentile | 136,332 | 72,479 | -259,335 | 0 |
| 10th percentile | 154,558 | 123,597 | -12,009 | 0 |
| 25th percentile | 176,706 | 157,443 | 62,357 | 64,844 |
| 50th percentile | 212,198 | 181,343 | 736,346 | 550,363 |
| 75th percentile | 283,897 | 221,445 | 2,258,542 | 2,300,295 |
| 90th percentile | 384,192 | 286,862 | 4,645,813 | 5,010,299 |
| 95th percentile | 478,319 | 347,719 | 7,080,999 | 7,564,922 |
| Mean | 261,918 | 207,393 | 1,974,627 | 2,074,350 |
| Observations | 1,136,044 | 121,656 | 1,136,044 | 121,656 |

*Source: Danish Administrative Data.*
*Note: Household income/wealth data is at the individual level and include only respondents' and spouses' income/wealth. Income and wealth are at the household level (summed over spouses in the household). Income is disposable income (income net taxes and including transfers). Percentiles are pseudo percentiles defined as the mean five observations around each percentile. Values are in 2019 DKK.*

Table 5: Income and Wealth Distribution by Limitations for 65+ Population. Denmark, 2015

| | 0 ADLs & 0 iADLs | 0 ADLs & 1+ iADLs | 1 ADL | 2+ ADLs | Total |
|---|---|---|---|---|---|
| Panel 1: Income | | | | | |
| <100% Median HH income | 0,448 | 0,678 | 0,603 | 0,800 | 0,500 |
| 100-150% Median HH income | 0,324 | 0,253 | 0,270 | 0,122 | 0,301 |
| 150+% Median HH income | 0,228 | 0,069 | 0,127 | 0,078 | 0,199 |
| Total | 0,797 | 0,074 | 0,053 | 0,076 | |
| Observations | 940 | 87 | 63 | 90 | 1180 |
| Panel 2: Wealth | | | | | |
| <100% Median HH wealth | 0,465 | 0,602 | 0,619 | 0,711 | 0,500 |
| 100-150% Median HH wealth | 0,094 | . | 0,095 | 0,067 | 0,085 |
| 150+% Median HH wealth | 0,441 | 0,398 | 0,286 | 0,222 | 0,412 |
| Total | 0,797 | 0,070 | 0,053 | 0,076 | |
| Observations | 940 | 83 | 63 | 90 | 1180 |

*Source: SHARE (wave 6) linked to Danish administrative data.*

*Note: Household income data is at the individual level and include only respondent and spouse income. Our ADL index runs from 0-6 and is the number of ADLs that are difficult. ADLs include eating, bathing, getting dressed, using the toilet, walking across a room, and getting in/out of bed. IADLs include using a telephone, managing money, taking medications as prescribed, shopping for groceries, cooking a hot meal, and reading a map. Each cell reports the share of respondents in the respective ADL category who are in that row's income group, such that each column (excluding horizontal totals) sum to one. In panel (1) the median* disposable HH income is 203,058 DKK per year and in panel (2) the median* wealth is 882,670 DKK per year. Columns for 3+ ADLs are not included due to data restrictions caused by too few observations**. The number of observations differs between panels (1) and (2) due to this data restriction. Medians are pseudo medians defined as the mean of five observations around the median. Numbers in some cells marked with "." are not shown due to limited sample size.*

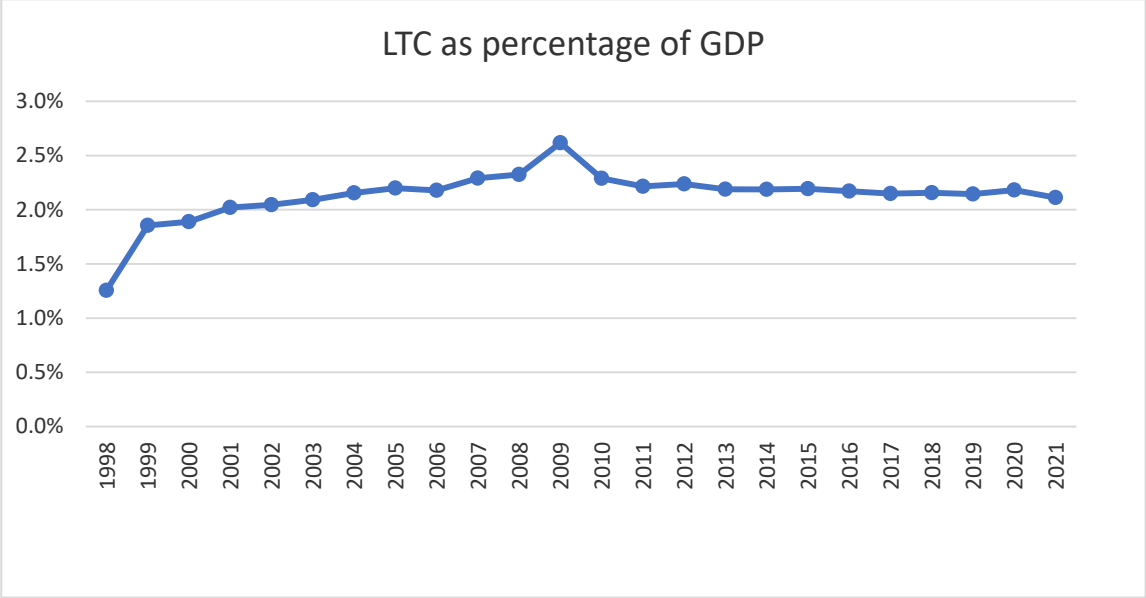
## Part II: Long-Term Care System in Denmark

Table 6: Population with LTC Insurance.
Denmark, 2015/2017.

| | 65+ |
|---|---|
| Population with LTC Insurance | 13,875 |
| Share of 65+ Population | 0.009 |
| Observations | 2,630 |

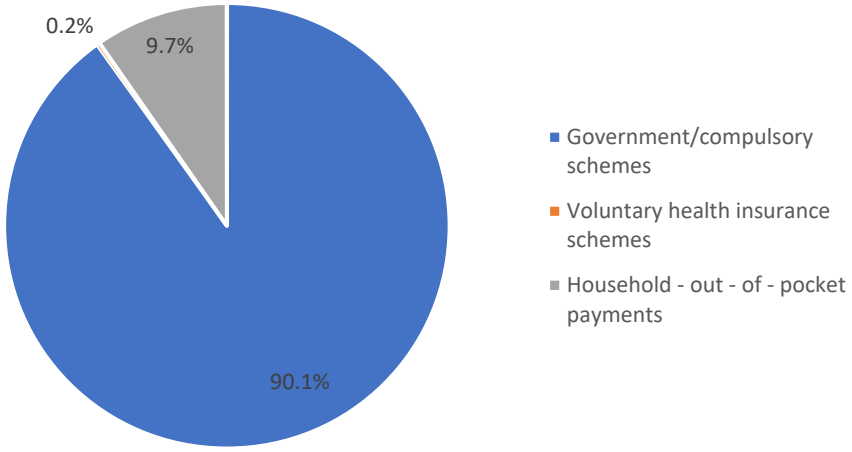
*Source: SHARE (wave 6 & 7) and www.statistikbanken.dk, table FOLK1A.*
*Note: Long Term Care Insurance covers only private insurance.*

Figure 3: Share of GDP spent on long-term care
Denmark, 1988-2019.




*Source: Statistics Denmark table NAN1 and SHA1 and OECD SHA. Note: Expenditure from 1998 – 2009 is from OECD, where room and board are excluded, however spending on residences for mentally ill and drug abusers is included. Expenditure from 2010-2021 is from Statistics Denmark, room and board is included, and spending on residences for mentally ill and drug abusers is excluded.*

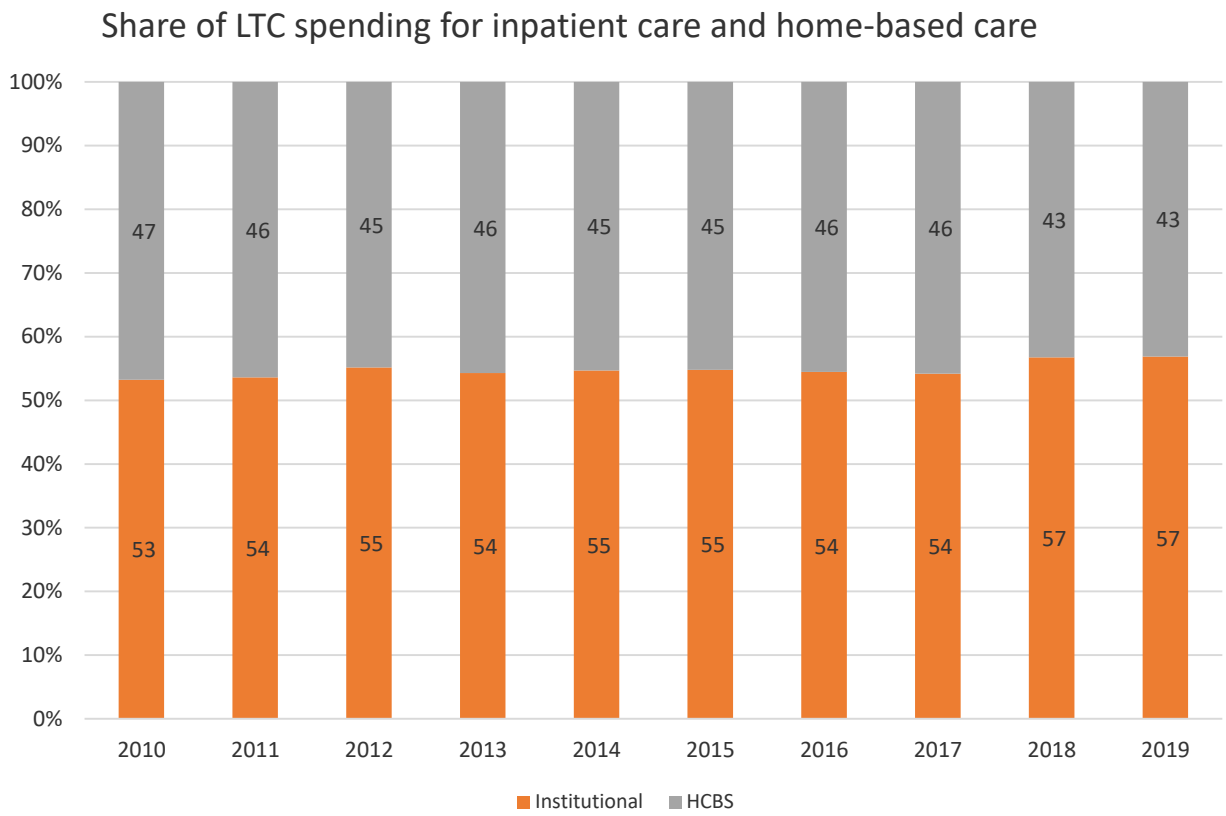
Figure 4: Share of LTC financing by source.
Denmark, 2019.




*Source: Statistics Denmark, table SHA, AED022, AED06 and RESI.*

*Note: Room and board is included for residents in nursing homes. Long term care spending data is adjusted with the proportion of residents in nursing homes and home care above 65 to approximately reflect the proportion of LTC costs spent on the elderly. Spending on residences for mentally ill and drug abusers is excluded.*

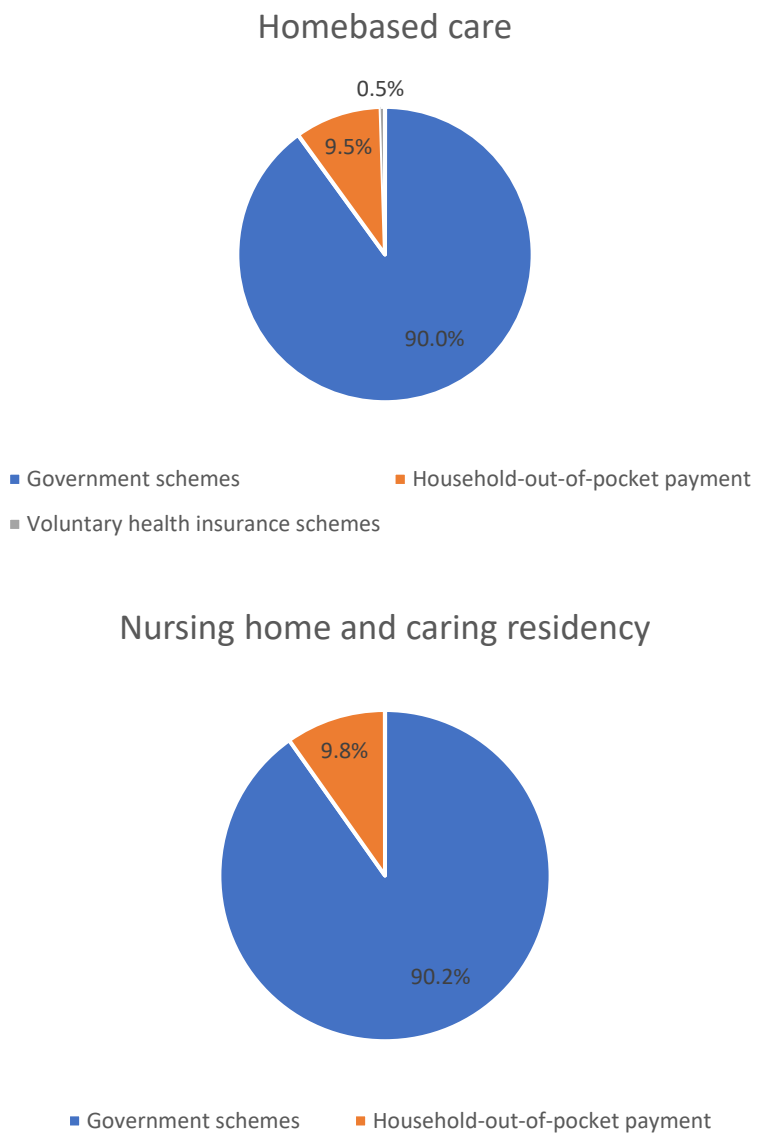
Figure 5: Spending on institutional care versus home-based care
Denmark, 2010-2019.




*Source: Statistics Denmark, table SHA1, AED022, AED06 and RESI. Total long-term care expenditures in year, subdivided by inpatient long-term care (institution) and home-based long-term care (HCBS).*

*Note: Room and board is included for residents in nursing homes. Long term care spending data in SHA1 includes spending on people below the age of 65 requiring care. Long term care spending data is adjusted with the proportion of residents in nursing homes and home care above 65 to approximately reflect the proportion of LTC costs spent on the elderly. Spending on residences for mentally ill and drug abusers is excluded.*

Figure 6: Percentage spent on home-based care and nursing care facilities, by source of funds. Denmark, 2019.




*Source: Eurostat/SHA. Note: Home-based care is defined as the medical, ancillary and nursing services that are consumed by patients at their home and involve the providers' physical presence. Nursing home and caring residency means the treatment and/or care provided in a healthcare facility to patients formally admitted and requiring an overnight stay. Room and board is included for residents in nursing homes. Long term care spending data in SHA1 includes spending on people below the age of 65 requiring care. Long term care spending data is adjusted with the proportion of residents in nursing homes and home care above 65 to approximately reflect the proportion of LTC costs spent on the elderly. Spending on residences for mentally ill and drug abusers is excluded.*

Table 7: Distribution of Hours of Help Received per Week
Denmark, 2015

| | 65+ | 85+ |
|---|---|---|
| 5th percentile | 0.9 | 0.6 |
| 10th percentile | 1.1 | 0.9 |
| 25th percentile | 1.1 | 2.3 |
| 50th percentile | 3.1 | 4.5 |
| 75th percentile | 6.1 | 9.0 |
| 90th percentile | 12.9 | 24.0 |
| 95th percentile | 26.1 | 29.5 |
| Mean | 5.9 | 8.4 |
| 1 hour per day or less | 0.79 | 0.61 |
| 5 hours per day or more | 0.02 | . |
| Observations | 449 | 71 |

*Source: SHARE (wave 6) and Danish administrative data.*
*Note: The hours are imputed using SHARE wave 1 and 2. Nursing home residents are excluded from all calculations. The table only include people with a number of hours helped pr. week larger than zero. Percentiles are pseudo percentiles defined as the mean five observations around each percentile. Hours include both formal and informal care. Data on formal care come from Danish administrative data and include both personal and practical help. Data on informal care come from SHARE, where respondents reported the number of times getting help over the past 12 months. Categories were 'About daily' (assumed 200 times), 'About every week' (assumed 40 times), 'About every month' (assumed 10 times) and 'Less often' (assumed 5 times). Respondents answered the question for up to three different helpers and the number of days with informal help is calculated as the sum over the different helpers.*

Table 8: Distribution of Nursing Home Stay Lengths.
Denmark, 2016.

| | |
|---|---|
| Average # Days since Entry | 961 |
| Median # Days since Entry | 791 |
| 10th Percentile # Days since Entry | 189 |
| 90th Percentile # Days since entry | 2,057 |
| Share in NH -2 Years | 0.77 |
| Observations | 29,488 |

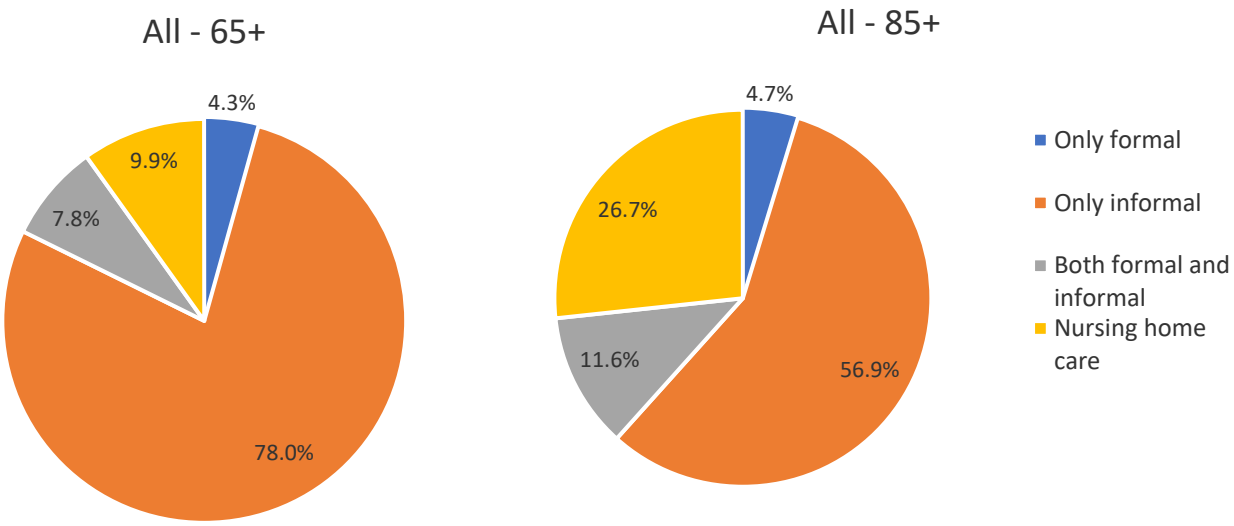
*Source: Danish Administrative Data*
*Note: The table includes people who moved into the nursing home or residential care facility in 2008 or later and were living there on January 1st, 2016. The median and percentiles are pseudo percentiles defined as the mean of five observations around each percentile.*

Table 9: Any Care by Age and ADL. Denmark, 2015/2017

| | 65 Plus | 85 Plus |
|---|---|---|
| Full sample | 0.335 | 0.625 |
| 0 ADLs 1+ IADL | 0.576 | 0.592 |
| 1 ADL | 0.524 | 0.710 |
| 2 ADLs | 0.748 | 0.877 |
| 3+ ADLs | 0.765 | 0.887 |
| Observations | 3,408 | 305 |

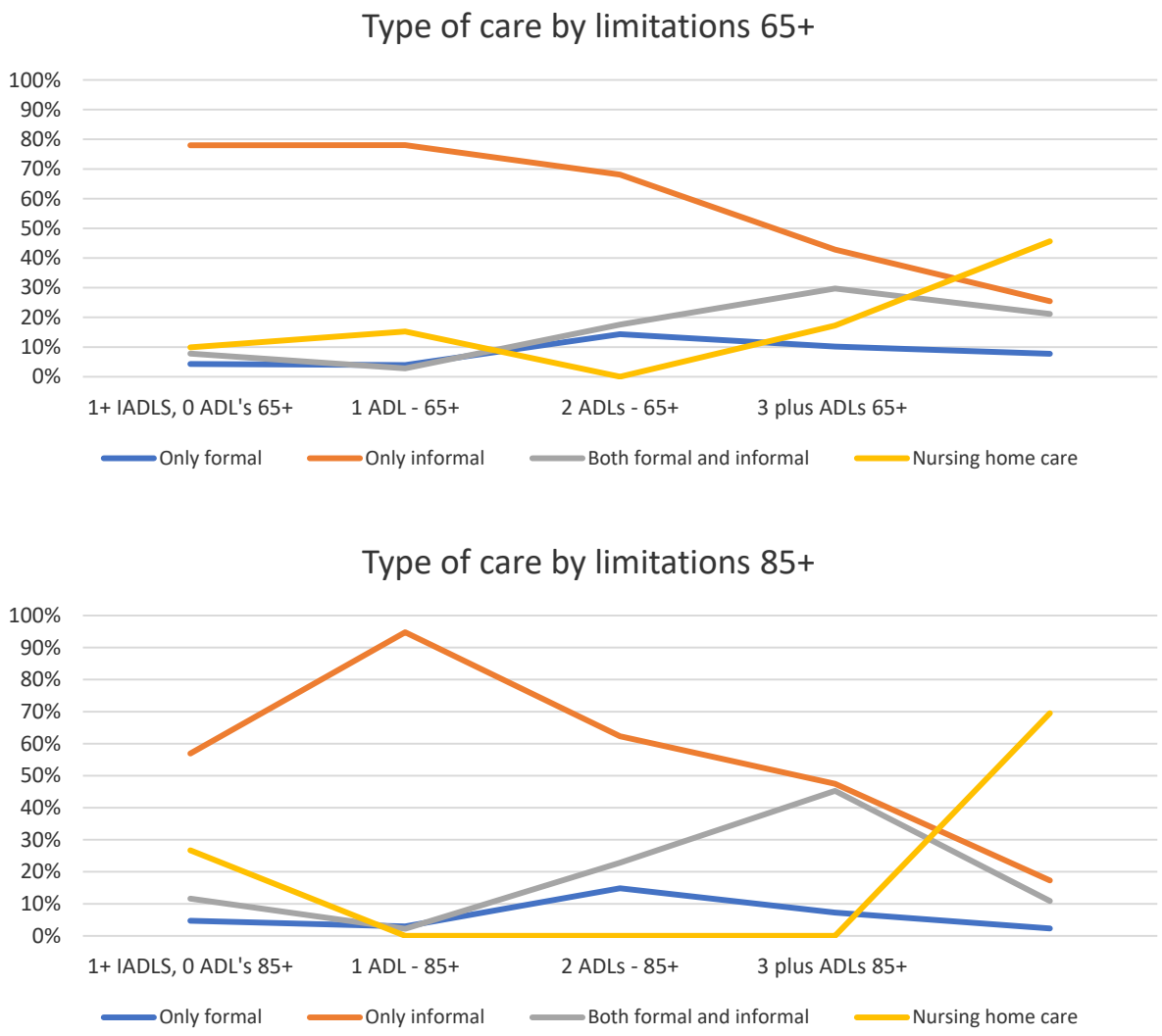
*Source: SHARE (wave 6 & 7) SHARE population weights are used, and nursing home residents are weighted, to match population in nursing homes.*
*Note: The care variable is defined as either being in a nursing home or having received formal or informal home help. For informal help from outside household, SHARE also includes practical help. For help inside the household, SHARE asks if respondents have received help regularly over a longer period within last 12 months.*

Figure 7: Type of Care Received, by Age.
Denmark, 2015/2017




*Source: SHARE (waves 6 & 7). SHARE population weights are used, and nursing home residents are weighted to match population in nursing homes.*
*Notes: The care variable is defined as either living in a nursing home or care residency or having received formal or informal home care. For informal care from outside the household, practical help is included. For care from within the household, only personal care is included, and consists of those having received help approximately daily for a longer period within the last 12 months.*

Figure 8: Type of Care Received, by Age and Limitations
Denmark, 2015/2017




*Source: SHARE (waves 6 & 7). SHARE population weights are used, and nursing home residents are weighted to match population in nursing homes.*
*Notes: The care variable is defined as either living in a nursing home or having received formal or informal home care. For informal care from outside the household, practical help is included. For care from within the household, only personal care is included, and consists of those having received help approximately daily for a longer period within the last 12 months.*

Table 10: Distribution of Hours of Help Received per Week.
Denmark, 2015

| | 65+ | | 85+ | |
|---|---|---|---|---|
| | Formal | Informal | Formal | Informal |
| 5th percentile | 0.2 | 1.1 | 0.3 | 1.1 |
| 10th percentile | 0.3 | 1.1 | 0.3 | 1.7 |
| 25th percentile | 0.5 | 1.1 | 0.5 | 2.7 |
| 50th percentile | 1.2 | 3.1 | 1.5 | 4.4 |
| 75th percentile | 4.0 | 5.3 | 4.8 | 7.7 |
| 90th percentile | 8.9 | 11.8 | 10.0 | 22.9 |
| 95th percentile | 13.7 | 25.0 | 14.7 | 26.0 |
| Mean | 3.4 | 5.5 | 3.7 | 7.5 |
| Observations | 141,662 | 396 | 49,332 | 55 |

*Source: SHARE (wave 6) and Danish administrative data.*
*Note: See note to table 6. Data on formal care come from Danish administrative data and include both personal and practical help. The table only include people with a number of hours helped pr. week larger than zero. Percentiles are pseudo percentiles defined as the mean five observations around each percentile. Data on formal care come from Danish administrative data and include both personal and practical help. Data on informal care come from SHARE, where respondents reported the number of times getting help over the past 12 months.*

Table 11: Absolute number of beds and occupancy rate in nursing homes and residential care facilities.
Denmark, 2019

| | 2019 |
|---|---|
| Nursing homes and caring residency | 950 |
| Beds, all age groups | 46,499 |
| Nursing home residents, all age groups | 42,886 |
| Occupancy rate, all | 92.2% |
| Nursing home residents, 65+ | 40,474 |
| Population aged 65+ | 1,136,063 |
| Nursing home residents per population 65+ | 3.6% |
| Nursing home residents, 85+ | 20,618 |
| Population aged 85+ | 121,658 |
| Nursing home and caring residency employees | 75,001 |
| Protected caring residency employees | 544 |
| Nursing home employment as proportion of public employees | 7.88% |
| Nursing home employment as proportion of total employment | 2.42% |
| Protected caring residency employment as proportion of public employees | 0.06% |
| Protected caring residency employment as proportion of total employment | 0.02% |

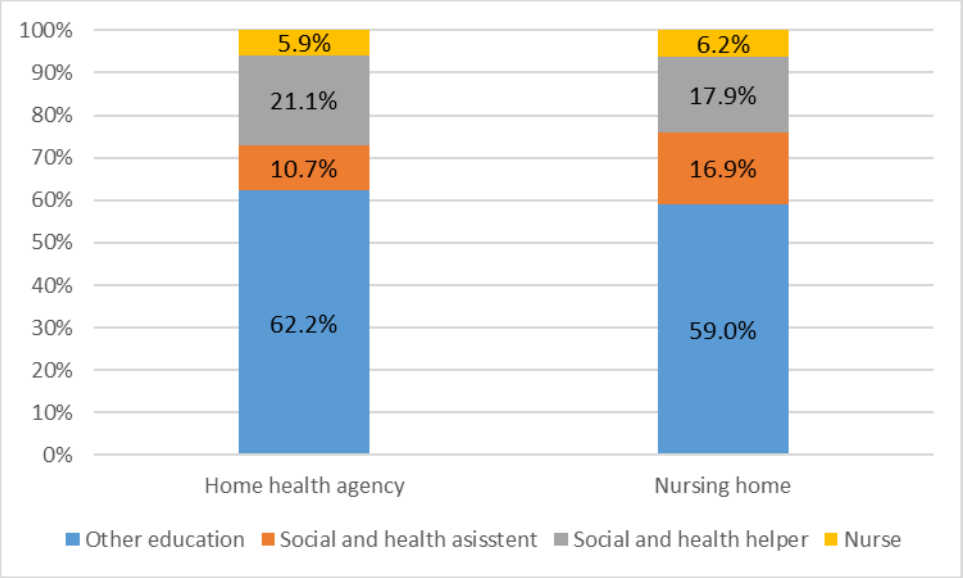
*Source: Data on number of nursing homes from www.seniorhaandbogen.dk, data on number of beds and nursing home residents, figure table RESP01 and RESI01. Categories included are nursing homes and protected caring residency (residential care facility) for the elderly. Population data, Statistics Denmark table FOLK2. Data on employment from Statistics Denmark table KAS309 and KAS311*

Table 12: Distribution of occupation rate and beds across municipalities for nursing homes and residential care facilities.
Denmark, 2019.

| Percentile | Occupation rate (percent) | Beds per one hundred 65+ |
|---|---|---|
| 5th percentile | 81.6 | 1.26 |
| 10th percentile | 83.9 | 1.85 |
| 20th percentile | 85.0 | 2.40 |
| 30th percentile | 87.7 | 2.75 |
| 40th percentile | 88.9 | 3.04 |
| 50th percentile | 89.9 | 3.55 |
| 60th percentile | 91.2 | 4.10 |
| 70th percentile | 92.8 | 5.17 |
| 80th percentile | 95.4 | 6.63 |
| 90th percentile | 97.6 | 11.18 |
| 95th percentile | 100.8 | 21.85 |
| | | |
| Min | 76.5 | 0.18 |
| Max | 114.1 | 57.31 |

*Note: Source: Data on the number of beds and nursing home residents from Statistics Denmark table RESP01 and RESI01. The population data on municipal level are from Statistic Denmark table BY2. Categories included are nursing homes and protected residential housing (residential care facilities) with care for the elderly. A number of municipalities have an occupation rate above 100 percent. This is possible as municipalities have the opportunity to use nursing homes in other municipalities.*

Figure 9: Percent distribution of nurses, and social and health care assistants and helpers, at care facilities.
Denmark, 2019.




*Notes: Source: Danish Administrative data. The variable is the highest achieved education of the workers. The large other education category particularly consists of workers whose highest education is secondary school or high school, and those educated as pedagogue or social worker. The group also includes smaller numbers of nursing assistants, nursing home assistants, physiotherapists, occupational therapists, and workers with office training.*

Table 13: Training requirements for formal home care workers.
Denmark

| | Admission criteria | Duration | Type of training |
|---|---|---|---|
| Nursing assistants *(Social and health care helpers)* | Passed primary school exams (skills in Danish at D level and science at E level) | 2 years and 2 months | School and practical training in home care and nursing homes |
| Licensed practical nurses *(Social and health care assistants)* | Passed criteria as for social and health care helpers plus competencies in first aid, fire extinction | 3 years, 9 months, 3 weeks | School based with practical training in home care, nursing homes, residential care facilities, hospitals, and psychiatric units |
| Registered nurses | High school (gymnasium) or equivalent | 3½ years | School based courses and clinical training |

*Source: Uddannelsen til social- og sundhedshjælper | FOA Social-Sundhed; https://www.foa.dk/raad-regler/uddannelse/i-gang-med-uddannelse/social-og-sundhedsassistent*
*Notes: For nursing assistants, the education for home care worker was in 1990 replaced by the education for social and health care helper. For licensed practical nurse, the education for nursing home assistant was in 1990 replaced by the education for social and health care assistant.*

Table 14: Pay for full-time care workers at nursing facility and in home health care. Denmark, 2019.

| | Mean hourly wage | Median hourly wage | Annual mean wage | Annual median wage |
|---|---|---|---|---|
| *Panel 1: Nursing Home Industry* | | | | |
| Nursing Assistants | 201 | 192 | 343,236 | 330,163 |
| Licensed Practical Nurses | 212 | 201 | 373,797 | 358,789 |
| Registered Nurses | 247 | 230 | 445,621 | 426,789 |
| *Panel 2: Home Health Care Industry* | | | | |
| Nursing Assistants | 188 | 179 | 336,013 | 321,234 |
| Licensed Practical Nurses | 211 | 197 | 381,246 | 361,456 |
| Registered Nurses | 241 | 222 | 446,887 | 422,684 |
| *Panel 3: All Industries* | | | | |
| All Workers | 258 | 228 | 494,570 | 433,205 |
| No High School Degree | 201 | 190 | 378,215 | 355,600 |
| No College Degree | 244 | 210 | 470,416 | 400,752 |
| College Degree or More | 267 | 235 | 513,623 | 447,139 |
| Poverty Line for a family of 4 | . | . | 265,728 | . |

*Source: Danish Administrative Data.*

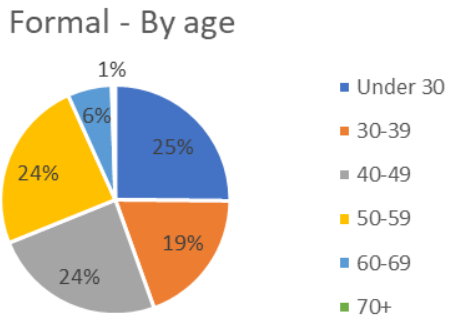
*Note: Nursing Assistants correspond to the Danish Social and healthcare helpers; Licensed Practical Nurses correspond to Social and healthcare assistants, see Table 14 for training requirements. Median wages are calculated as the average of five observations around the median. The sample is restricted to those working full-time in 2019. The poverty line is defined as 50 percent of the median wage in 2019 for a family of two parents and two children (statistikbanken.dk, table IFOR10).*

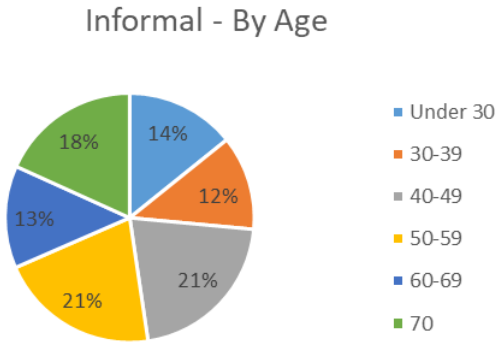
Table 15: Home Care Provision – Population Estimates.
Denmark, 2017

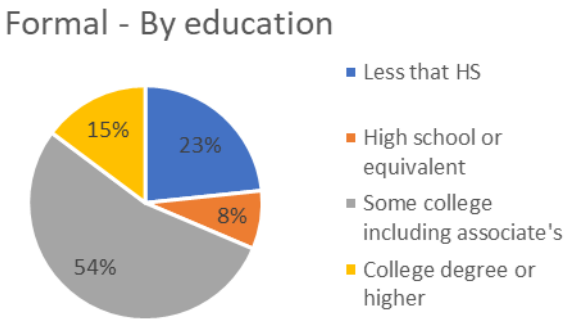
| | 65+ | 85+ |
|---|---|---|
| Formal helpers | 41,383 | 8,756 |
| Relative to elderly population | (0.038) | (0.073) |
| Relative to 18 to 65 population | (0.012) | (0.003) |
| Informal helpers | 84.527 | 40,070 |
| Relative to elderly population | (0.077) | (0.335) |
| Relative to 18 to 65 population | (0.024) | (0.011) |
| All helpers | 125,910 | 48,826 |
| Relative to elderly population | (0.115) | (0.408) |
| Relative to 18 to 65 population | (0.036) | (0.014) |
| *Observations (SHARE population)* | 1,661 | 157 |
| *Observations (population 65+/85+)* | 1,095,172 | 119,594 |
| *Population 18 to 64* | 3,485,374 | 3,485,374 |

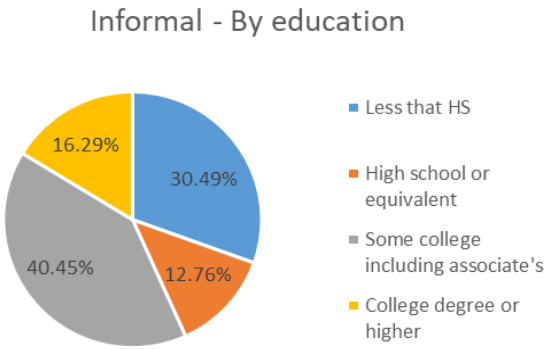
*Source: SHARE (wave 7), Danish administrative data and www.statistikbanken.dl, table AED06 and RAS309.*
*Note: The number of informal helpers is calculated by calculating the fraction of SHARE respondents who receive informal care by age group and the average number of helpers from SHARE data. Multiplying this with entire population in the given age group from administrative data gives us an estimate of the total number of informal helpers. SHARE is asking about help received, and as it is not possible to report more than three helpers, the measure of informal helpers is imprecise. The number of formal helpers is calculated by finding the fraction of home care receivers who are 65 + and 85 + respectively and multiplying with total home care workers.*

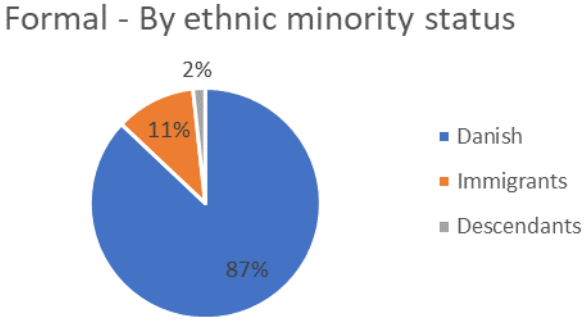
Figure 10: Demographic composition of formal and informal care workers.
Denmark, 2013/2015

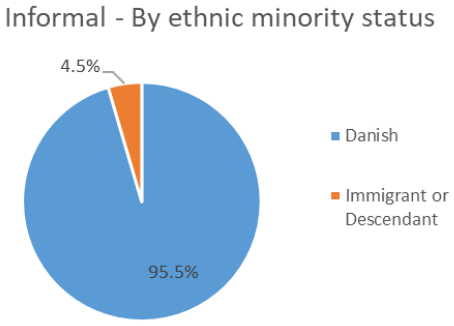


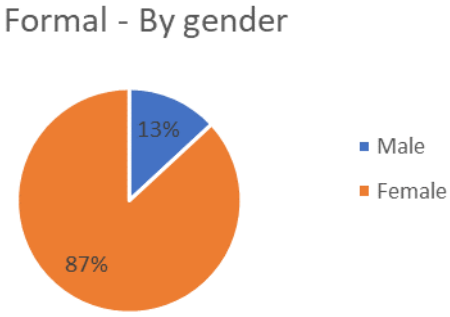



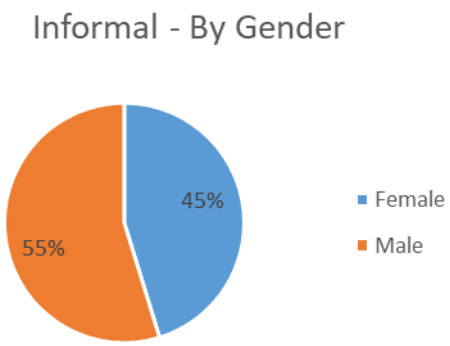



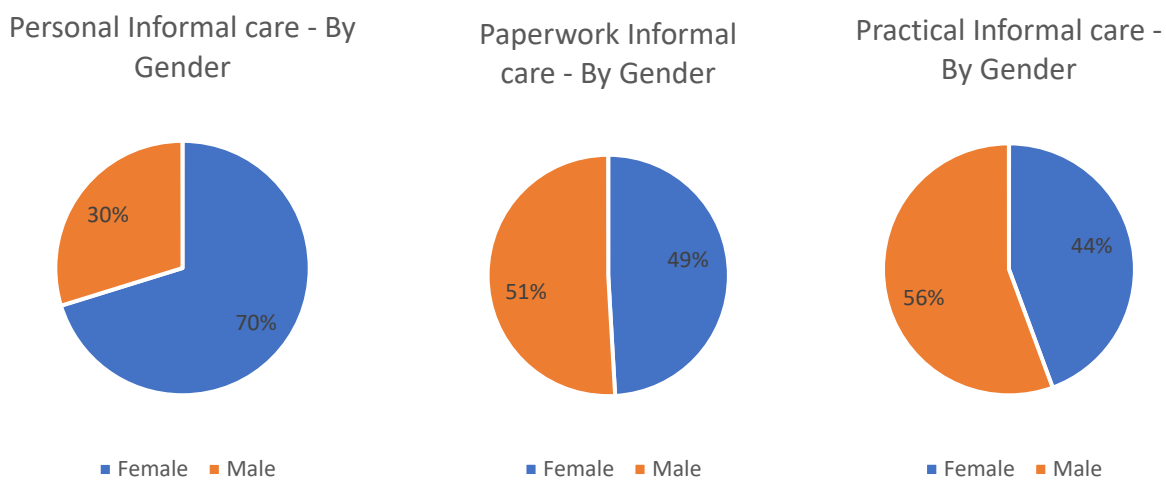



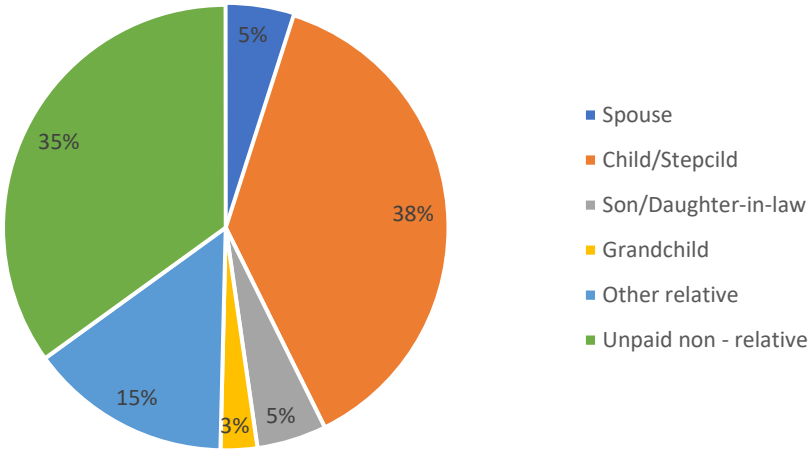






*Source: SHARE and Danish administrative data.*
*Note for Figure 10: Data does not include information on citizenship, but instead by immigration status. Descendants are people born to immigrant parents. For informal care, age is provided for children and spouses and is estimated. Immigration status is only provided for spouse and children, where immigrant and descendant is merged into one category due to data restrictions. Education is provided for spouses, children and grandchildren. Children's education is taken as the lowest education of the care receiver's children, and similarly for grandchildren. Data for informal care is from 2015 (SHARE, wave 6). Data for formal helpers is from 2013 and includes both practical help and personal care. Both care inside and outside household is included for informal care, although care from inside the household represents a very small fraction of the sample. For informal care, SHARE population weights are used.*

Figure 11: Informal Caregivers by Relationship to Care Recipient. Denmark, 2015.




*Note: Informal care includes both practical help and personal care. Both care inside and outside household is included, although care from inside the household represents a very small fraction of the sample. SHARE population weights are used.*

## Part III: The Cost of Long-Term Care

Table 16: Formal care costs, annual.
Denmark, 2019.

| Types | Number of users 65+ | Total spending 65+ (billion DKK) |
|---|---|---|
| Nursing home and residential care | 40,474 | 28.04 |
| Home care | 125,579 | 11.56 |

*Source: Statistics Denmark, www.statistikbanken.dk, Tables REGK31, AED06, SHA1 and note from KL – Local Government Denmark. Expenditure on nursing home and residential care include room and board. Private costs are imputed from Statistikbanken, SHA1.*

Table 17: Informal Care Valuation.
Denmark, 2019.

| | I | II |
|---|---|---|
| Valuation (billion DKK) | 14.06 | 21.71 |
| Total Hours Informal Help (billion) | 0.102 | 0.102 |
| Probability of working | 0.5788 | 0.5788 |
| Probability of working*Predicted wage if working | 138 | 138 |
| (1-Probability of working)*Wage of home care worker | 75 | 75 |
| Hours of Working Caregiver | 0.059 | 0.059 |
| Hours of Non-Working Caregiver | 0.043 | 0.043 |
| Predicted wage if working | 239 | 239 |
| Wage of home care worker | 179 | 179 |
| Observations | 3,408 | 3,408 |

*Source: SHARE and Danish administrative register data from Statistics Denmark.*
*Note: Total annual hours of informal help is estimated using information on average hours of informal care if receiving care (5.5 hours per week) from Table 10, scaled by the proportion that receive informal care (31.4 percent of the 65+) as reported in SHARE, and scaled to the total population of 65+ year olds in 2019 (1,136,045 individuals). Employment probabilities of informal carers, E(Work), are predicted for each type of caregiver (by caregiver's gender, age and education) based on an estimation of being employed by gender, age, and education, using administrative register data for the population. These are weighted by number of informal hours provided by each informal carer as reported in SHARE. Average wages for informal care providers working are based on predicted wages by gender, age and education for similar individuals in population. Valuation of shadow wage for non-working individuals providing informal care is based on wage of nursing assistants, as given in Table 14.*

Table 18: Total Costs by Type of Care and Source.
Denmark, 2019.

| Care Type | Source | Cost I | Cost II | Cost I – Share of GDP | Cost II – Share of GDP |
|---|---|---|---|---|---|
| Nursing Home and residential care | Public | 25.29 | 25.29 | 1.1% | 1.1% |
| | Private | 2.75 | 2.75 | 0.1% | 0.1% |
| | All | 28.04 | 28.04 | 1.2% | 1.2% |
| Home Care | Public | 10.27 | 10.27 | 0.4% | 0.4% |
| | Private | 1.29 | 1.29 | 0.1% | 0.1% |
| | All | 11.56 | 11.56 | 0.5% | 0.5% |
| Informal Care | Private | 14.06 | 21.71 | 0.6% | 0.9% |
| Total | Public | 35.56 | 35.56 | 1.5% | 1.5% |
| | Private | 18.09 | 25.75 | 0.8% | 1.1% |
| | All | 53.65 | 61.31 | 2.3% | 2.7% |

*Note: Numbers in this table are based on Tables 16 and 17. Numbers for GDP are from Statistics Denmark, www.statistikbanken.dk, Tables NAN31*