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Universalizing the Access to Long-term Care: Evidence from Spain
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ABSTRACT

Spain together with Scotland are two countries that exhibit the largest expansions in long term care (LTC) in the last two decades, universalizing subsidies and supports. This paper is part of a global effort to provide a snapshot of the trends in LTC use and access, as well as the financing, and organization of the LTC system compared to other higher-income countries. The passage of Act 39/2006 on the Promotion of Personal Autonomy and Care for Dependent Persons (SAAD in Spanish) on December 14th, 2006, universalized coverage for care subsidies and supports, allowing access to care conditioned only on individuals' assessment of care needs. As a consequence, LTC spending as a percentage of GDP has risen from 0.5% in 2003 to nearly 0.9% in 2019, despite private LTC insurance playing a minor role. Still today, LTC remains heavily reliant on informal care, which is now partially subsidized by a caregiving subsidy as part of SAAD. Long-term care spending in Spain amounts to between 1.27%(conservative estimates) and 1.70% (flexible estimation) of GDP. Finally, the system reveals significant gender imbalances in the provision of care, with women accounting for most caregivers in both formal (87%) and informal (58%) care.

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Part 0. Introduction

Life expectancy in Europe is rising, particularly in Spain, putting pressure on countries to meet the growing demands for care and other needs of an ageing population. According to OECD data in Figure 1, the proportion of Spaniards over the age of 65 will rise from 19.9% today to 23.8% in 2030 and 30.3% in 2060. In 2060, slightly more than 27% of the population over 65 in Spain is projected to be 85 or older (10 percentage points higher than in 2021) as depicted in Figure 2.

Individuals over the age of 65 may experience limitations in their activities of daily living (ADLs) at some point in their lives, and these limitations sharply increase as people age. Indeed, while 12.3% of those aged 65 and older have two or more ADL limitations, this figure rises to 34% among those aged 85 and older (according to data from SHARE for 2017). This includes relying on others to perform basic tasks such as bathing, eating, going to bed or dressing. These figures call for the need of some planning to improve quality of life of people in a dependency situation (in terms of services, technology, and human capital) and more generally, in anticipating the effect on the demand for long-term care (LTC).

The purpose of this chapter is to explain how Spain's long-term care system is organised after the introduction of a reform in 2007 that universalised the access to LTC which we refer under the Spanish acronym of SAAD (see Costa-Font et al, 2018 and 2022 for more recent description and effects of the reform). SAAD expanded the public funding of long-term care in Spain by introducing an universal benefit purely based on inividual needs which overcame the means-tested access to publicly subsidised care before 2007. However, SAAD was subjected to austerity cuts in 2012, which reduced the generosity of economic and in-kind benefits and delayed access to the system for moderate dependent individuals.

Using a conservative cost method for the monetary valuation of informal care hours, long-term care costs are estimated to total 15,824 million euros per year (roughly 36% of public expenditure and 64% of private expenditure). However, using an alternative and more flexible estimation method for informal caregiving hours, the total long-term care estimates are much higher, at 21,204 million € (roughly 27% of public and 73% of private expenditure). Long-term care spending in Spain amounts to between 1.27% (conservative estimates) and 1.70% (flexible estimation) of GDP (1,245,513 million € in 2019).

The structure of the paper is as follows. We begin with an overview of the institutional context of the LTC in Spain (Part 0.1). Part I will examine nursing homes, formal home care, and informal home care in terms of sociodemographic characteristics and other relevant factors. Part II also covers financing and spending distribution, Part III examines the total cost of the LTC system (value of formal and informal care) and Part IV summarises the findings.

Part 0.I Institutional setting

Public insurance entitlement and benefits

Long-term care in Spain is funded by a combination of national and regional tax revenues, as well as by individual copayments. To date, the regional share of LTC funding has risen from 50% in 2007 to around 60% of total funding in 2019. The long-term care system's regulation and governance is regionally decentralised, with some coordination between regional and the central government.

The LTC system is grounded on the Act 39/2006, of 14 December, on the Promotion of Personal Autonomy and Care for Dependent Persons (SAAD), which universalised access (not financing) to long-term care services and supports (LTCSS) and devised an effective expansion of public funding for all Spaniards, serving as the national framework regulation. Prior to the implementation of SAAD, subsidies were means-tested and funded by limited local government budgets (see Figure 0.1 below). Disability allowances were only granted if the degree of disability of the claimant was greater than 65% and only under very strict income thresholds.

The implementation of SAAD led to an effective universalization of the LTC access (rather than the financing), regardless of age or other demographic characteristics. However, given that the implementation is regionally descentralised, cost-sharing arrangements were designed and implemented in a different way across regions. Although the system was initially intended to provide only home care services, the final design included a cash subsidy to assist households whose best care plan was to continue providing informal care. Following a needs test assessment, individuals were offered either a cash allowance or a number of hours of home care supports. In their needs assessment, all regions use the same ranking scale to evaluate about 47 tasks divided into ten activities[1]. Each task is usually assigned a different weight, and a different scale is used among people who have a mental disorder or a cognitive disability. Furthermore, the care evaluation considers the level of supervision required to complete each task. Evaluators conduct interviews with family members and consider broader social needs.

Following the needs assessment, individuals are classified as 'non eligeble', 'moderate', 'severe,' or 'major dependent'. Those recognized as 'dependent' receive an 'individual care plan,' which identifies the type of supports and care that best meet their overall care and social needs (and includes a consultation with the family). The catalogue of services includes services for preventing dependency and promoting personal autonomy, telecare, home care, day and night centre service, and nursing homes. Each regional authority establishes quality standards, and regional authorities accredit professional services. SAAD includes funding for day and night care centres, as well as residential care, in addition to home care assistance[2].

[1] The ranking scale evaluates 47 tasks grouped into the following ten activities of daily living: eating and drinking, control of physical needs, bathing and basic personal hygiene, other personal care, dressing and undressing, maintaining one's health, mobility, moving outside the home, and housework. Each activity of daily living is assigned a different weight, and there is a different scale for individuals with mental illness or cognitive disability. Additionally, the evaluation considers the degree of supervision required to perform each task. The final score is the sum of the weights of the activities of daily living for which the individual has difficulty multiplied by the degree of supervision required. The degree of dependency is determined as the result of the sum: not eligible (less than 25 points), moderate dependency (25 to 49 points), severe dependency (50 to 74 points), and major dependency (above 74 points). Spain's Royal Decree 504/2007, of 20 April, approved the dependency rating scale established by Act 39/2006, of 14 December, *Promoción de la Autonomía Personal y Atención a las Personas en Situación de Dependencia.*

[2] It is important to mention that home help assistants are required to certify the professional qualification of Social and Health Care for People at Home, as established by Royal Decree 295/2004, dated February 20, 2004, which established certain professional qualifications that are included in the National Catalogue of Professional Qualifications, as well as their corresponding training modules that are incorporated into the Modular Catalogue of Vocational Training (Order SCB/429/2019, of 1 April, amending Order SAS/2287/2010, of 19 August, which regulates the requirements and procedure for the accreditation of the centres, services and private entities, subsidized or not, that act in the field of personal autonomy and care for dependent persons in the cities of Ceuta and Melilla).

When the competent administrations cannot provide these services, the dependent person is entitled to economic benefits: (1) service-linked financial benefit, only awarded when care is not possible through a public care service, (2) subsidies for personal assistance to facilitate the beneficiary's access to education and employment and (3) cash subsidies for care in the family (to reward informal caregivers).

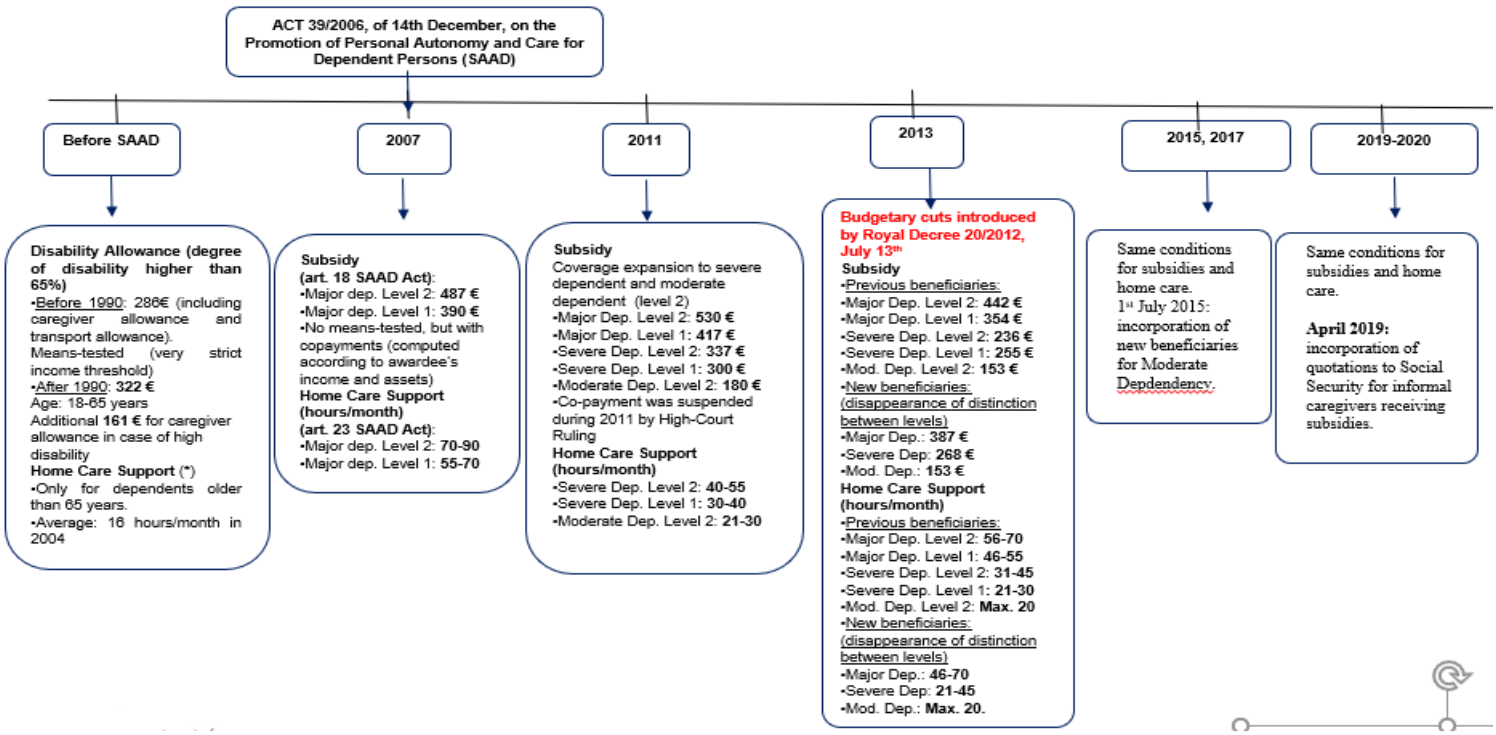
Focusing on the last type of economic benefit, it must be nuanced that receiving a cash subsidy is incompatible with any form of in-kind benefit, except for telecare. Cash subsidies to reward informal caregivers are designed for situations when the beneficiary is cared for by his or her family environment, and the dwelling meets the appropriate cohabitation and habitability conditions. Even though it was intended to be an exceptional benefit, it quickly became popular, with approximately 40-50% of SAAD LTC beneficiaries receiving a cash subsidy.

Figure 0.1 depicts the changes in the availability and evolution of cash subsidies and homecare supports. Caregiving subsidies for highly dependent individuals ranged from €390 to €487 per month in 2007 (nominal euros) and increased to €417 to €530 in 2011. However, the 2012 austerity measures, slashed the amount to between €387 and €442 in 2013 (Rodríguez Cabrero et al., 2022). Cash subsidies were smaller when they referred to individuals with only severe dependency, ranging between €180 and €300 in 2011, but after the 2012 budget cuts, they were combined into one group that received between €236 and €268 in 2013. Subsidies have been designed to be always below the minimum wage and are unconditional (meaning that the funds are deposited directly into the care recipient's bank account, and no specific budget allocation is required).

At the onset of the SAAD, homecare support intensity ranged from 70-90 hours/month for major dependency, Level 1 (which was four times the average provision prior to the reform (16 hours/month)), to 55-70 hours/month for Level 2. Between 2007 and 2011, the system was expanded to include severe and moderate dependency levels. Austerity cuts in 2012 reduced the number of hours of supports as well, in line with the reductions in cash allowances.

Government funding for the SAAD fell by 1,409 million euros between 2012 and 2014. Individuals with ‘moderate' care needs were added to the system in 2015, and social security contributions from caregivers were interrupted in 2013 but recovered in 2019 (Costa-Font and Vilaplana, 2022b).

Figure 0.1: The evolution of policy reforms after the Promotion of Personal Autonomy and Care for Dependent Persons (SAAD)



Source: own work using information from [Autonomía Personal y Dependencia - Instituto de Mayores y Servicios Sociales (imserso.es)]

The private sector is the main provider of residential care, with new nursing home centres opening in the aftermath of SAAD. However, most nursing home beds are still contracted out to the public sector. Municipalities typically manage public home care services, which are funded in part by tax revenues. To access both public and subsidised home care centres, individuals must need care and have a dependency level of 2 or 3. Applicants must apply through the region to be evaluated, and the individual care plan must specify the need for access to a nursing home. Individuals are placed on a waiting list once a care plan is issued until a vacancy becomes available. Finally, there are also home and community-based services, typically regulated and funded by the regional social service department, but provided by public or private centers and services that are subsidized and duly accredited. These services commonly include the following:

1. ***Services for the prevention care needs***, which refer to actions to promote healthy living conditions, specific preventive and rehabilitation programs aimed at the elderly and people with disabilities and those affected by complex hospitalization processes. Persons who have been awarded Grade I of moderate dependency will benefit from the following services for the promotion of personal autonomy:
    - Habilitation and occupational therapy.
    - Early intervention.
    - Cognitive stimulation.
    - Promotion, maintenance, and recovery of functional autonomy.

    - Psychosocial training for people with mental illness or intellectual disability.
    - Personal support and care in special accommodation (sheltered housing).
2. ***Telecare***, namely care using communication and information technologies (ICT), supported with human resources under special circumstances such as emergency, insecurity, loneliness and isolation. It can either supplement or complement service to home help. This service is only provided to people who do not receive nursing home.
3. ***Home Help*** is the most common home and community-based services **(**HCBS) delivered in Spain, it refers to supports in the care receiver's home to meet their daily care and is provided by accredited entities or companies. It includes support with: (i) domestic or household needs, such as cleaning, washing, cooking, or others, and (ii) personal care, which refers to services related to personal care to accomplish daily living activities.
4. Finally, the system considers ***day and night care***, both general and specialized.

Funding

The financing system is based on the existence of three levels of protection: minimum level, agreed level and additional level. The financing of the minimum level of protection funded by the central government. The allocation of regional budgets depends on the number of dependent persons entitled to care, based on the information that regions supply to the Information System of the System for Autonomy and Care for Dependency (ISSAAD). Next, the agreed level of protection is jointly funded by the central state and the regions, and is based on some criteria such as dependent population, beneficiaries with benefits, actual service benefits, regional investment in the SAAD, SAAD-related employment, ground area, dispersion, insularity, cost of services, economic capacity, administrative agility, persons pending resolution, or reduction of the waiting list. Finally, each region has discretion to top up their system.

Nonetheless, there have also been various exceptional financial allocations for the financing of such as the Special State Fund for the Dynamization of the Economy and Employment where 400 million euros were distributed among the autonomous communities (regions) and cities for the improvement of the implementation of the SAAD. Likewise, central government has been financing the Social Security contributions associated with the special agreements that may be signed by non-professional caregivers of care receivers (informal caregivers), in such a way that they do not entail any expense for them.

Spending cuts

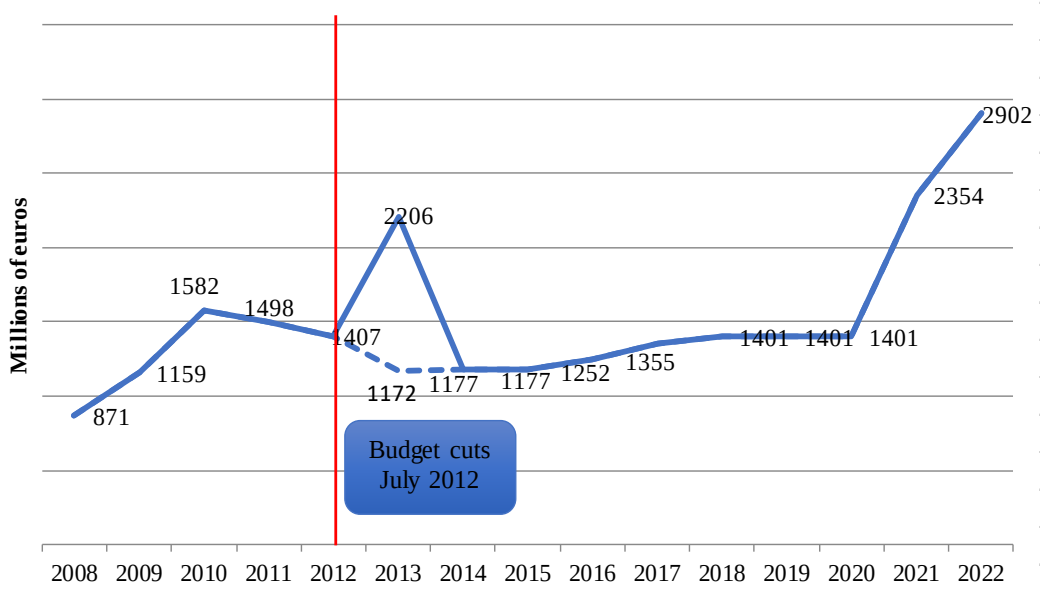
The evolution of the long-term care budgets in Spain has been defined both by the spending cuts introduced in July 2012, as well as failure of the parliament to pass the general state budget bill for two consecutive years in 2019 and 2020, thus operating based on a budget extension of the year 2018 (Costa-Font et al, 2018, 2022, Costa-Font and Vilaplana-Prieto, 2022a, b, c).

Figure 0.2 depicts the evolution of the long-term care budget in Spain from 2008 to 2022. The budget for long-term care in 2008 accounted for 871 million euros and in the two successive years it increased by 33% and 37% in 2009 and 2010, respectively. However,

2012, severe budgetary were applied, representing a decrease in the budget of approximately 6%. It should be noted that 2013 was an atypical year because it was included the pending payment of obligations of Social Security contributions of non-professional caregivers, amounting to 1,034 million euros. That is why in 2013 the effects of the budget cuts introduced in July 2012 were not yet reflected.

Public LTC spending stagnated after the budget cuts from 2013 up to 2020. Finally, in 2021 and 2022, long-term care budget increased again to 2,902 million euros, 23.3% more than in 2021 and twice the amount registered in 2018 (see Figure 0.2) (Jiménez-Martín & Viola, 2022).

Figure 0.2: Budget for long-term care (millions of euros). State´s general budgets. 2008-2022. Spain.



Source: Consolidated General State Budget Statistics. Notes: 2019: 2018 extended and 2020: 2019 extended.
Note: It should be noted that 2013 was an atypical year because it was included the pending payment of obligations of Social Security contributions of non-professional caregivers, amounting to 1,034 million euros. The dotted line reports the budget taking away such payment.

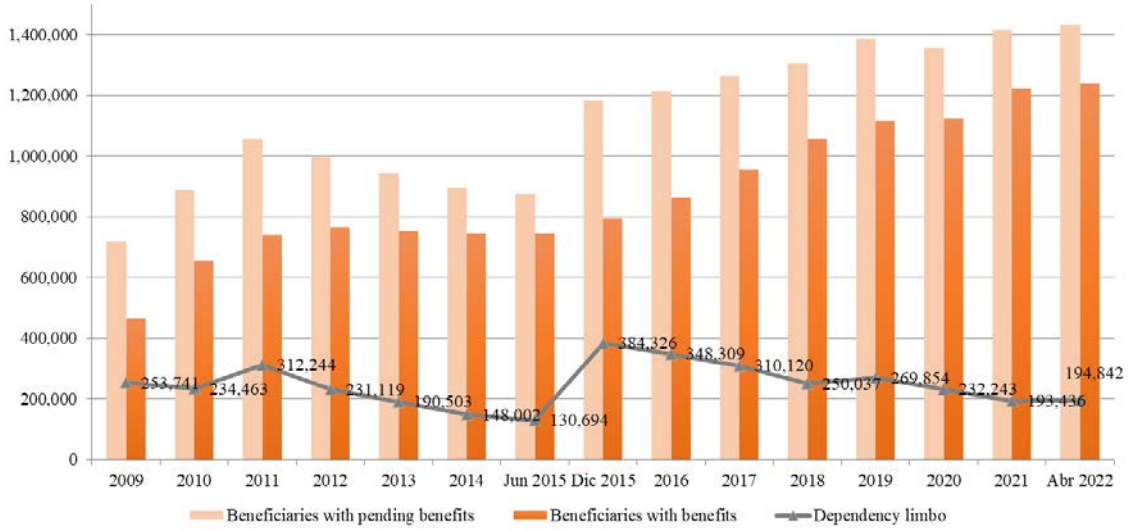
Waiting lists

One of the consequences of the budget cuts has been the proliferation of waiting lists, often referred as the “dependency limbo”. That is, the status that some individuals find themselves when they are officially entitled to supports or subsidies, but have not yet received any benefit. That is, people on a SAAD waiting list (WL), measured as the difference between the number of people entitled to benefits and the number of people with benefits.

Figure 0.3 depicts the evolution of the long-term care waiting lists from 2009 to date. We find that after the economic downturn in 2011 and the subsequent austerity reforms in 2012, some individuals with a moderate degree of care needs were entitled to SAAD in December 2015 rather than 2013 as scheduled (Jiménez-Martín & Viola, 2022). Indeed, in December 2015, around 385,000 people were pending of receiving the benefit. Since

then, the gap between people with and without benefits has been narrowing significantly (especially in the last two years), currently stands at around 195,000 people.

Figure 0.3: Number of beneficiaries with benefits and pending benefits: dependency limbo. 2009-2022. Spain.



Source: IMSERSO.

Part I: Aging, Disability and Well-Being

As individuals grow older, they may be susceptible to limitations in activities of daily living at some point in their lives. In other words, a person may need help or depend on another to carry out basic activities such as washing, eating, or dressing, for example. Indeed, population ageing encompasses a rise in daily living activities, especially when people face serious limitations in their autonomy.

The percentage of Spanish people aged 65 and up face limitations in their daily activities is displayed in Table 1. Approximately 67.9 % of the 65+ population report no limitations (neither ADL nor IADL), compared to about 31.7% of the 85+ population. Furthermore, 13.8% (65+) and 22.9% (85+) have no ADL limitations, but at least one IADL limitation. Focusing at the population with severe difficulties, 7.3% of the 65+ population and 22.5% of the 85+ population have four to six ADL limitations.

Aging is not always associated with care and health care needs (Costa-Font and Vilaplana, 2020), but as shown in Table 1, the population aged 65 and over is a group that requires more care, especially in those groups with greater dependency, requiring constant attention and support for housework, personal care, and mobility. In this regard, Table 2 depicts the distribution of limitations for the 65+ and 85+ populations based on the type of IADL or ADL. Shopping for groceries (14.3% for 65+ and 38.1% for 85+) and managing money (12.1% for 65+ and 36.9% for 85+) are the most reported problems for those with one or more IADLs. Furthermore, for those with one or more ADL limitations, the most common difficulties are taking a bath (14.1% for 65+ and 39.3% for 85+) and getting dressed (12.8% for 65+ and 31.9% for 85+).

Moreover, Table 3 summarizes various measures of people's well-being. Individuals having multiple limitations (three or more) for daily life activities (and at older ages) appear to exhibit, as expected, worse health. However, 9.5% of those 65 and older report good health, while 8.6% of those 85 and older report good health. Individuals who have no limitations, on the other hand, have a much higher percentage of people reporting good or very good health: 34.8% for those aged 65+, and 20.4% for those aged 85+. The percentage declaring themselves very satisfied with their life is 64.8% (65+) and 55.3% (85+), but decreases to 40.4% (65+) and 44.1%(85+) when we restrict to people with +3ADLs. Furthermore, the prevalence of depression is nearly identical between those who have no limitations and those who have three or more limitations for people aged 85+, (35.3% and 34.8%, respectively) (Costa-Font and Vilaplana, 2022b).

To conclude this section, we present Table 4 and Table 5 which show the distribution of household (HH) income and wealth by ADLs and IADLs limitations. First, Table 4 depicts the percentile distribution of household income and wealth for those aged 65+, as well as those aged 85+ (using the OECD equivalence scale). Income and wealth are rising along the income percentile distribution (with a slight increase at 90^{th} percentile).

Our estimates document that the bottom 5% of the population 85+ has a wealth of 678€, while the bottom 5% of those 65+ have a wealth of 2,143€ (that is, more than three times higher). When we turn to the top 5% of those aged 85+, wealth amounts to 590,743€, it is 711,884€ for those aged 65+. Similar conclusions can be drawn when comparing income. Using the mean value as a guide, mean income (or wealth) for those 65+ is 1.23 (or 1.29) higher than for those 85+.

Next, Table 5 relates income and wealth with ADLs and IADLs limitations. 21.5% of those with 3+ADLs are below 50% of median household income (compared to only 4.9% for those with neither ADLs nor ADLs). Thus, the percentage below half of median household income is four times higher among the elderly with +3ADLs. Conversely, the percentage whose income is between 1.5 and 2 times the median income is three times higher for those with no limitations than for those with +3ADLs. Finally, 15.1% of those with no limitations earn more than twice the median household income, compared to 5.9% of those with 2ADLs and 8.3% of those with +3ADLs.

With respect to wealth, the percentage with less than half the median wealth is 1.5 times higher for those with +3ADLs relative to those with no limitations. In contrast, the percentage with more than twice the median wealth is 2.7 times higher among those with no limitations relative to those with +3ADLs.

Part II: Long-Term Care System in Spain

LTC financing

After a period of slowdown, spending on long-term care relative to GDP has been trending slightly upward since 2017 (Figure 3). In fact, LTC spending as a percentage of GDP has risen from 0.5% in 2003 to nearly 0.9% today (data from 2019).

As mentioned in the institutional section, the LTC system in Spain is run by regional governments and the funding is regionally decentralized. Indeed, LTC funding is comprised of the general contribution of the central government (15%), contributions from autonomous communities (regions, 64%), and contributions from users (cost sharing, 21%) (see Figure 4).

Regarding financing by type of care, Figure 5 summarizes the share of public LTC expenditure aimed at institutional care, home care and day centers. The expenditure on institutional care accounts for 64%, although it has decreased 6 pp since 2003 (70%) and in consequence the share of public LTC expenditure devoted to home care and day centers has increased from 30% in 2003 to 36% in 2019.

The development of the private long-term care insurance market in Spain is very scarce. In 2017, only 2% of individuals aged 65 and older had subscribed and insurance contract (Table 6).

LTC recipients and caregivers

Previously, we pointed out the limitations that face the elderly population in Spain in their daily life activities. Now we turn to analyze the number of ***recipients of the LTC*** system who ask for help to perform their daily routines and afterwards, we will focus on another fundamental piece of the system which are the ***caregivers***.

In Spain, 13.3% of people aged 65+ receive some form of care (22.2% for those aged 85+) (see Table 7). As expected, the percentage of people who require care rises with the number of ADL limitations. In the population aged 65+, it ranges from 28.4% for those with no ADLs and only 1 ADL to almost 44% for those with at least 3 ADLs. This progression is also observed for the cohort aged 85+, although not as pronounced.

LTC help comes either in its formal or informal way, though the latter plays a key role in Spain. Figures 6 and 7 depict the distinction between formal and informal care for each ADL category, namely one, two, or three or more limitations. Figure 6 shows the distribution of the type of care among people aged 65+ (85+) who receive some type of care. In the 65+ population, 49% receive only informal care, 27% receive only formal care, 10% receive both types of care and 14% receive nursing home care. In the 85+ population, the percentage receiving informal care is a bit higher (51%), but the percentage receiving only formal care is smaller (19%), the percentage receiving both types of care increases until 14% and 16% of the population receive nursing home care.

As for the distribution of type of care by number of ADLs (Figure 7), in the population aged 65+, as the number of ADLs increases, there is an upward trend in the combined use of formal and informal care (from 12% to 19%), as well as nursing home care (from 2% to 14%). In the population aged 85+, there is an increasing profile of the probability of receiving only informal care as the number of ADLs increases. In contrast, the percentage receiving only formal care decreases from 28% to 15% as we move from 0 ADLs (+1 IADL) to 1 ADL. In the case of people with +3ADLs, we appreciate an increase in informal care and nursing home care.

As for informal caregivers, Table 8 reports estimates of the total number of individuals providing ADL/IADL-related help. In accordance with prior figures, the role of informal

care providers is quite important: around 80% of people helping individuals aged 65+ were informal caregivers, from which 30% correspond to informal caregivers of dependents aged 85+. In general, most of the informal caregivers are daughters (40%), spouses (30%), sons (19%) and other relatives (11%) (Figure 8).

Caregiver's hours of care are typically capped at 16 hours per day to allow for 8 hours of rest, so the maximum number of hours per week should be 112 (95% of the time). Only 5% of caregivers devote less than 7 hours per week for people 65+ (or 14 hours per week for people 85+) (Tables 9 and 10) (See Costa-Font et al, 2022 for a full analysis of the effect of SAAD on care use).

When it comes to sociodemographic characteristics, women make up most caregivers in both the formal (87%) and informal (58%) sectors (Figure 9). Most caregivers in the formal sector are between the ages of 40 and 59 (54%). Caregivers in the informal sector, are older than those in the formal sector, those aged 50 to 69 accounting for 26% of caregivers and those aged 70 or older accounting for 56% of total caregivers. Furthermore, 53% of all formal care workers have a high school diploma (HS), with 42% having a college diploma or something comparable. The informal sector seems to be less qualified: 54% of informal workers attained less than a high school degree and only 19% have with some college degree. [In the comparison of the above figures, we should note that while for informal caregiving, we do know that caregivers look after people aged 65 and over; however, in the case of formal caregivers, we ignore the age of the person they are caring for.]

Finally, another important aspect in the LTC sector are the working conditions. Table 11 analyzes the earnings distribution, hourly wages and fraction of part time for formal care workers. A nursing facility worker (1,437 €) earns on average quite the same per month as a home care worker (1,424 €) and an average worker (1454,2 €). In terms of hourly wages,[3] the average for nursing facilities workers (10.92) is about 30 cents below that of home care and all workers. Apart of this, part time is much more prevalent among home care workers (36.2 %) than for nursing care workers (22.9 %) According to percentiles, the 10% of nursing facility workers (percentile 10) earn less than 878 euros per month and 626 euros in home care, while only 10% of nursing home workers (percentile 90) earn more than 2,078 euros per month and 2,542 euros in home care.

The second panel of Table 11 allows us to extract several lessons about the earning distribution, hourly wages and part time by skill. First, for all workers the wage distribution for low skill workers is much more compressed than for intermediate skill or high skill workers. Second, the ratio high skill vs low skill average wages (as well hourly wages) is much higher for home care workers (1.90) than for nursing care workers (1.60). Third, for all type of workers part time work is more prevalent among low skill workers

As mentioned before, expenditure on institutional care, most commonly nursing homes, accounts for 64% of total public expenditure on LTC. In Spain, there are 5,542 nursing homes, the majority of which are private (74.11%). On the contrary, the total number of registered beds in 2019 is 399,417 of which 61.9% are public (Table 12). In these facilities,

[3] The Social Security Working Histories do not report hours. In order to estimate hourly wages, we combine the information of part time/full time work from the Social Security files with the average hour's information from the Quarterly Survey of Labor Cost (INE, 2018).

most workers are nursing aides (52%), followed by cleaning staff (9%) and finance and social science professionals (9%). Furthermore, nurses (5%) and administrative staff (5%) make up 10% of the total (Figure 10).

The occupancy rate of nursing homes varies by region (Table 13) expressed as the percentage of beds/places occupied in nursing homes. In Spain, the occupancy rate is around 63%. However, there are communities such as Castilla-La Mancha, Madrid, Murcia, Ceuta and Melilla where the occupancy level is well above the national average, reaching full capacity of the nursing homes (99%-100%).

Part III: The Cost of Long-Term Care

In this section, we separate the analysis in two parts, one for the formal care and the other for the informal care sector. Afterwards, we sum up them to have the overall cost of LTC in Spain. The total costs in formal care are shown in Table 14. Additionally, we distinguish between public and private costs for nursing homes and home care.

Public cost for nursing homes refers to public sector spending on residential places (direct provision and service-linked provision, when it is not possible to find a public provider), and discounting the co-payment borne by the user. Private cost for nursing homes includes the expenditure derived from people who opt for a place in a private nursing home (paying 100% of the cost of the service) plus the co-payment borne by users of public places.

Public cost for home dare refers to public sector spending on home care (direct provision and service-linked provision, when it is not possible to find a public provider), and discounting the co-payment borne by the user. Private cost for home care incorporates the expenditure derived from people who choose to receive home care from a private company (paying 100% of the cost of the service) plus the co-payment borne by the users of public places.

We have also estimated the cost associated to public cash benefits. The cost of public cash subsidies has been estimated as the product of the amount of the benefit by the average distribution by degree of dependency, discounting the co-payment (according to the economic capacity of the users). In addition, the cost associated with the payment of caregivers' social security contributions has been included.

In 2019 and for public services, the total number of nursing home users was 250,708, with a total spending of 7,321 million euros. Spending on formal home care amounted to 1,742 million euros for 296,927 users.

In relation to the receipt of private services, it is estimated that there are 95,269 nursing home beneficiaries and 29,644 home care or health beneficiaries, which represents a cost to families of 3,342 and 498 million euros, respectively.

The cost associated to public cash benefits amounts to 1,277 million euros.

To obtain the valuation of informal care shown in Table 15, we have proceeded in the following steps. In Cost I estimation, the Wage Structure Survey has been used to estimate

a wage equation using as explanatory variables: age, sex, level of education and region of residence. The same characteristics have been used to estimate the probability of being working, in this case, using the Labor Force Survey. These results have been applied to SHARE to obtain the predicted probability of working and the predicted wage of the caregivers. Next, we have obtained the average predicted unconditional wage of caregivers as the average of the predicted probability of work multiplied by the predicted wage conditional on working. Finally, the value of informal care is equal to the product of the predicted unconditional wage multiplied by the total hours of informal care.
In estimation Cost II, first, we have used the complementary of the predicted probability of working for caregivers multiplied by the wage of formal caregivers. Second, the predicted unconditional wage was added to this result, and finally, the sum was multiplied by the total hours of informal care.

The total number of informal caregiving hours in 2019 amounts to 1,252 million hours. The total cost (cost I) amounts to 5,096 million euros (2019), which is 0.50% of GDP. For cost II, the cost of informal care amounts to 11,643 million €, 0.93% of GDP.

Comparing this amount with the volume of spending on cash benefits (1,277 million €; 0.10% of GDP), it is clear that the cost of informal care is between 5 and 9 times higher than the financial compensation that the Spanish public long-term care system allocates to caregivers.

In Table 16, we have proceeded to obtain the total cost of LTC and also differentiating between public and private funding. We report figures in euros (top panel) and as a fraction of the Spanish GDP (bottom panel). The total cost of nursing home care amounts to 7,321 million euros (54% public and 46% private), which represent 0.59 % of the Spanish GDP. The total cost of home care amounts to 2,240 million euros (77.27% public and 22.23% private) or 0.18 % of the Spanish GDP. Adding the informal costs by both methods, we obtain a total cost of 15,824 million € (cost method I) and 21,204 million € (cost method II), which represents between 1.27% and 1.70% of GDP (1.245.513 million € in 2019).

The distribution between public and private costs is, according to method I, 36% (public) and 64% (private), and according to method II, 27% (public) and 73% (private). And the distribution by care type according to method I it is 46% (nursing home), 14% (home care) and 40% (informal care), and according to method II, 35% (nursing home), 11% (home care) and 55% (informal care).

Part IV. Conclusions

Spain’s access to LTC is universal, though LTC funding, can vary depending on individuals needs and means via cost sharing and regionals budgets. Prior to the implementation of SAAD, caregiving benefits were restricted to means-tested allowances provided by underfunded local government budgets, as well as means-tested disability allowances granted only for a degree of disability greater than 65%.

The provision of care for older age adults in Spain has substantially developed after the introduction of SAAD in 2007 which has expanded care. We focus on the study of the relationship between age, disabilities and wellbeing. We also try to analyze the characteristic of the workforce and the caregivers.

Based on the estimates reported in this chapter, we can reach the following conclusions:

- LTC expenditure as % of GDP has increased from 0.5% (2003) to nearly 0.9% (2019), mostly due to the introduction and development of the SAAD.

- The Spanish dependency system has been largely based on a subsidization of informal caregivers. Spending on cash benefits (net of co-payments) represents 0.10% of GDP (1,277 million €) in 2019.

- Private insurance for long-term care plays a negligible role.

- LTC spending increases with need and with individual income, however, need explains mainly use of publicly funded care, income drives privately funded care.

- The percentage of the population receiving some type of care represents 13.3% of the 65+ population and 22.2% of the 85+ population. In both groups, the percentage receiving care increases with the number of ADLs, reaching 43.7% (65+) and 49.9% (85+) for 3 or more ADLs.

- Having multiple limitations (three or more) for daily life activities (and at older ages) has an impact on having good health. However, 9.4% of those aged 65 and over report having good health, while 8.5% of those aged 85 and up report having good health. Individuals with no limitations, on the other hand, exhibit a much higher percentage of people reporting good or very good health: 34.3% for those 65+, and 20.1% for those 85+.

- In the 65+ age group, the prevalence of depression is 5 percentage points higher when comparing individuals with 3 or more limitations (35.4%) with respect to individuals without limitations (29%). For the 85+ age group, the percentage with depression among those with no limitations and those with 3 or more limitations is similar (35.3% and 34.8%, respectively).

- Finally, the estimated annual total cost using a conservative cost method is 15,824 million euros (with approximately 36% of public expenditure and 64% of private expenditure) and with a less conservative method, is much higher, 21,204 million euro (with approx. 27% of public and 73% of private expenditure).

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European Quality of Life Survey, 2016

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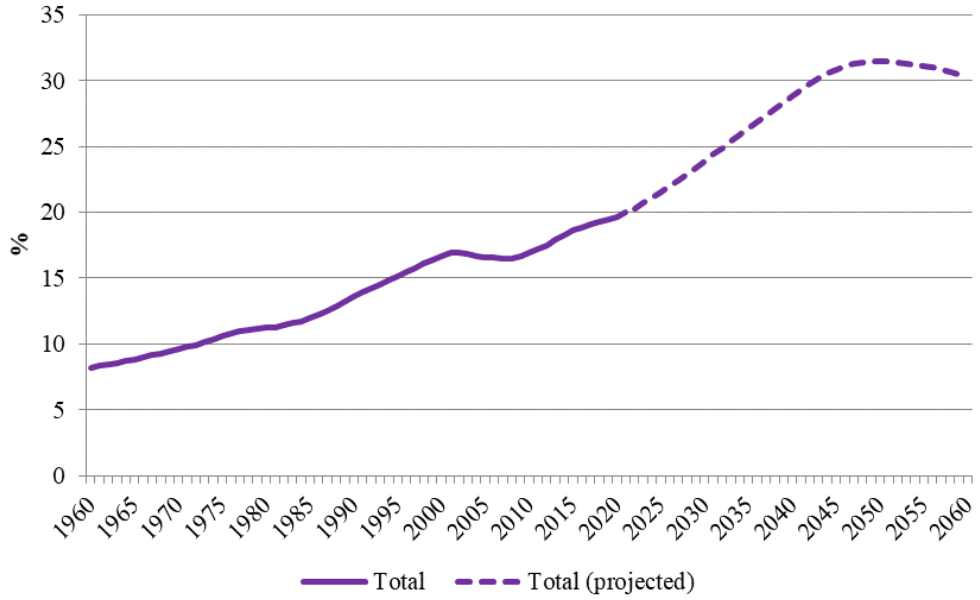
Tables and figures

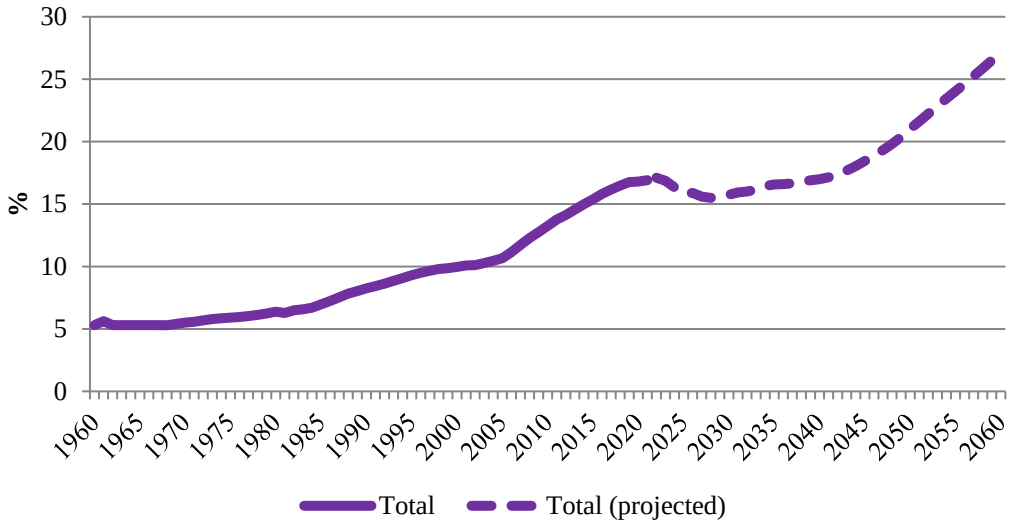
Part I: Aging, Disability, and Well-Being

Figure 1: Percentage of population age 65 or older. Spain, 1960-2060.



Source: OECD stat, available at: https://stats.oecd.org/Index.aspx?DataSetCode=POPPROJ#, accessed on September 22, 2022.

Figure 2: Percentage of 65+ population that is age 85 or older. Spain, 1960-2060.



Source: OECD stat, available at: https://stats.oecd.org/Index.aspx?DataSetCode=POPPROJ#, accessed on September 22, 2022.

Table 1: Share with ADLs by Age.
Spain, 2017.

	65+	85+
0 ADLs & 0 IADLs	0.679	0.317
0 ADLs & 1+ IADLs	0.138	0.229
1 ADL	0.060	0.114
2 ADLs	0.028	0.064
3 ADLs	0.022	0.051
4 ADLs	0.022	0.061
5 ADLs	0.020	0.054
6 ADLs	0.031	0.110
Any ADL	0.183	0.454
Any IADL	0.302	0.665
Observations	*3280*	*590*

Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017). ADLs include walking across 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. Individuals that report not doing these activities are also included as having difficulty with them.

Table 2: Distribution of Limitations with Specific ADLs/IADLs.
Spain, 2017.

	65+ All	65+ Conditional	85+ All	85+ Conditional
Panel 1- IADLs:				
IADL – Use a Phone	0.076	0.252	0.239	0.357
IADL – Manage Money	0.121	0.401	0.369	0.552
IADL – Take Meds as Prescribed	0.077	0.253	0.244	0.365
IADL – Shop for Groceries	0.143	0.473	0.381	0.570
IADL – Prepare a Meal	0.120	0.395	0.354	0.529
Observations	3280	992	590	295
Panel 2- ADLs:				
ADL – Use the Toilet	0.080	0.437	0.251	0.552
ADL – Get Dressed	0.128	0.701	0.319	0.701
ADL – Take a Bath	0.141	0.773	0.393	0.866
ADL – Walk Across a Room	0.063	0.346	0.183	0.403
ADL – Eat	0.048	0.265	0.153	0.336
ADL – Get In/Out of Bed	0.094	0.513	0.273	0.601
Observations	3280	599	590	268

Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017). Column 1 shows the share of the sample that report having difficulty with each activity, while Column 2 shows the share of people with at least 1 IADL (panel 1) or at least 1 ADL (panel 2) who report having difficulty with each activity. Individuals that report not doing these activities are also included as having difficulty with them.

Table 3: Well-Being for those 65+ and 85+ by ADL Limitations.
Spain, 2017.

	65+	65+, 3+ Lims	85+	85+ 3+ Lims
Reports good or better health status	0.348	0.095	0.204	0.086
Very satisfied with life	0.648	0.404	0.553	0.441
Depressed much of time	0.290	0.354	0.353	0.348
Observations	*3,307*	*662*	*598*	309

Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017).

Table 4: Income and Wealth Distribution. Spain, 2017.

	Income		Wealth	
	65+	85+	65+	85+
5th Percentile	3,241.72	1,810.49	2,143.50	678.28
10th Percentile	4,783.08	3,884.75	8,498.29	3,294.03
25th Percentile	7,715.22	7,000.00	41,670.16	23,413.15
50th Percentile	14,943.25	13,730.50	113,333.30	79,161.04
75th Percentile	24,800.00	21,398.11	257,879.70	20,4004.10
90th Percentile	39,002.71	31,045.55	488,833.40	40,1828.60
95th Percentile	55,215.88	43,875.78	711,884.60	590,743.40
Mean	21,631.22	17,549.71	210,229.5	162,646.9
Observations	3280	590	3280	590

Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017). All income and wealth estimates are post-tax (2019 euros). Wealth includes bank accounts, bond, stock and mutual funds, savings for long-term investments, value of own business, value of home, value of cars and value of other real estate Income and wealth have been computed using the OCDE scale.

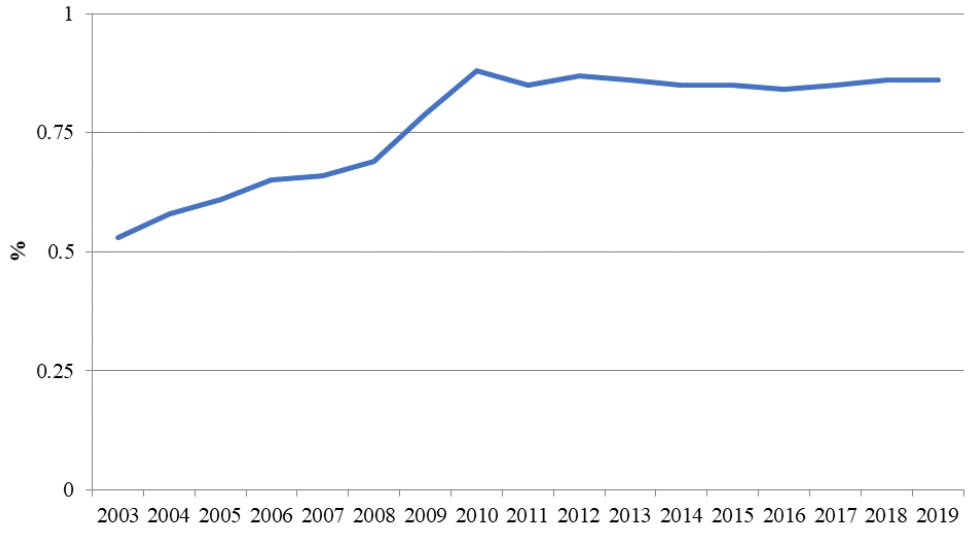
Table 5: Income and Wealth Distribution by Limitations for 65+ Population. Spain, 2017.

	0 ADLs & 0 IADLs	0 ADLs & 1+ IADLs	1 ADL	2 ADLs	3+ ADLs	Total
Panel 1: Income						
<50% Median HH Income	0.049	0.097	0.050	0.196	0.215	0.073
50-100% Median HH Income	0.376	0.520	0.496	0.490	0.463	0.409
100-150% Median HH Income	0.301	0.207	0.235	0.216	0.195	0.275
150-200% Median HH Income	0.124	0.066	0.118	0.039	0.044	0.108
200%+ Median HH Income	0.151	0.110	0.101	0.059	0.083	0.135
Total	0.679	0.138	0.060	0.022	0.073	-
Observations	2.228	453	198	91	332	3.302
Panel 2: Wealth						
<50% Median HH Wealth	0.208	0.335	0.261	0.255	0.302	0.235
50-100% Median HH Wealth	0.256	0.273	0.277	0.314	0.302	0.265
100-150% Median HH Wealth	0.173	0.203	0.227	0.235	0.185	0.182
150-200% Median HH Wealth	0.109	0.066	0.042	0.059	0.117	0.101
200%+ Median HH Wealth	0.254	0.123	0.193	0.137	0.093	0.218
Total	0.679	0.138	0.060	0.022	0.073	-
Observations	2,228	453	198	91	332	3,302

Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017). Our ADL Index runs from 0-6 and is the number of ADLs that are either difficult or not done from eating, bathing, dressing, 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, and cooking a hot meal. Each cell reports the share of respondents in the respective ADL category who are in that row's income group. All income and wealth estimates are post-tax (2019 euros). Wealth includes bank accounts, bond, stock and mutual funds, savings for long-term investments, value of own business, value of home, value of cars and value of other real estate Income and wealth have been computed using the OCDE scale.

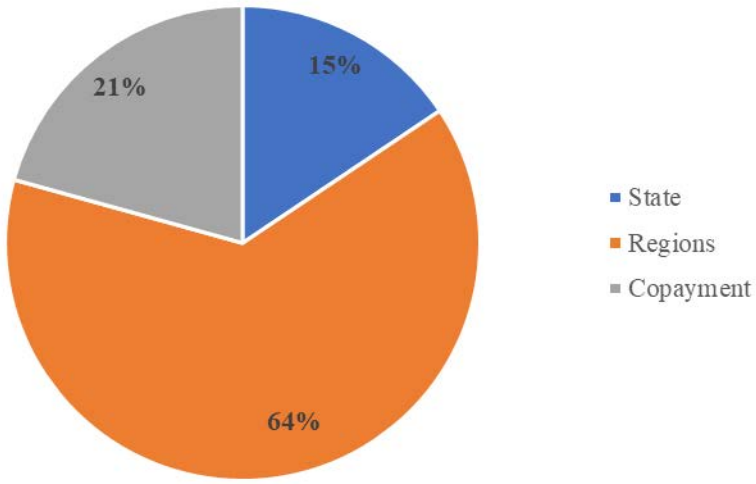
Part II: Long-Term Care System in Spain

Figure 3: Share of GDP spent on long-term care. Spain, 2003-2019.



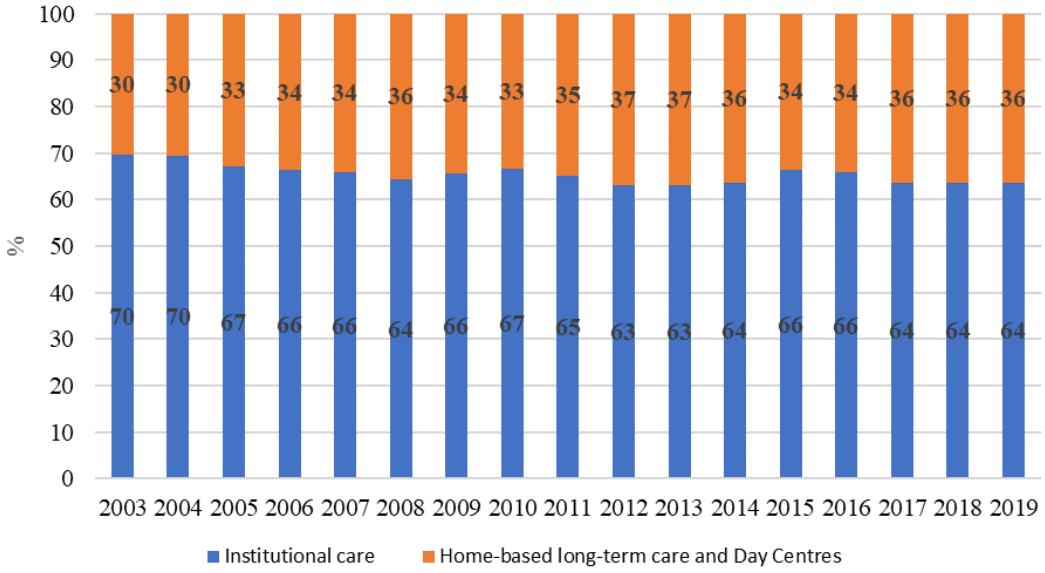
Source: Eurostat.

Figure 4: Percent of LTC Financing by Source. Spain, 2019.



Source: Asociación Estatal de Directores y Gerentes de Servicios Sociales de España, available at: https://directoressociales.com/wp-content/uploads/2021/01/INFO-GLOBAL-XX-DICTAMEN-3-3-20_compressed.pdf

Figure 5: Share of public LTC expenditure for institutional care and home care and day centers. Spain, 2003-2019.



Source: Eurostat.

Table 6: Population with LTC Insurance Spain, 2017.

	65 +
Population with LTC Insurance	176,386
Share of 65+/85+ Population	(0.020)
Observations	*26*

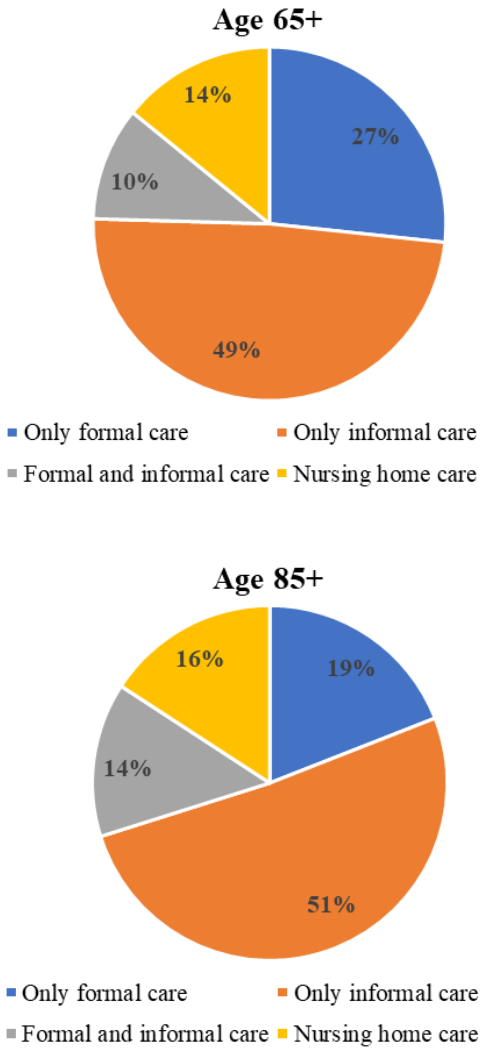
Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7).

Table 7: Any Care by Age and ADL
Spain, 2017.

	65 Plus	85 Plus
Full Sample	0.133	0.222
0 ADLs, 1+ IADL	0.284	0.454
1 ADL	0.293	0.468
2 ADL	0.370	0.508
3+ ADL	0.437	0.499
Observations	3280	590

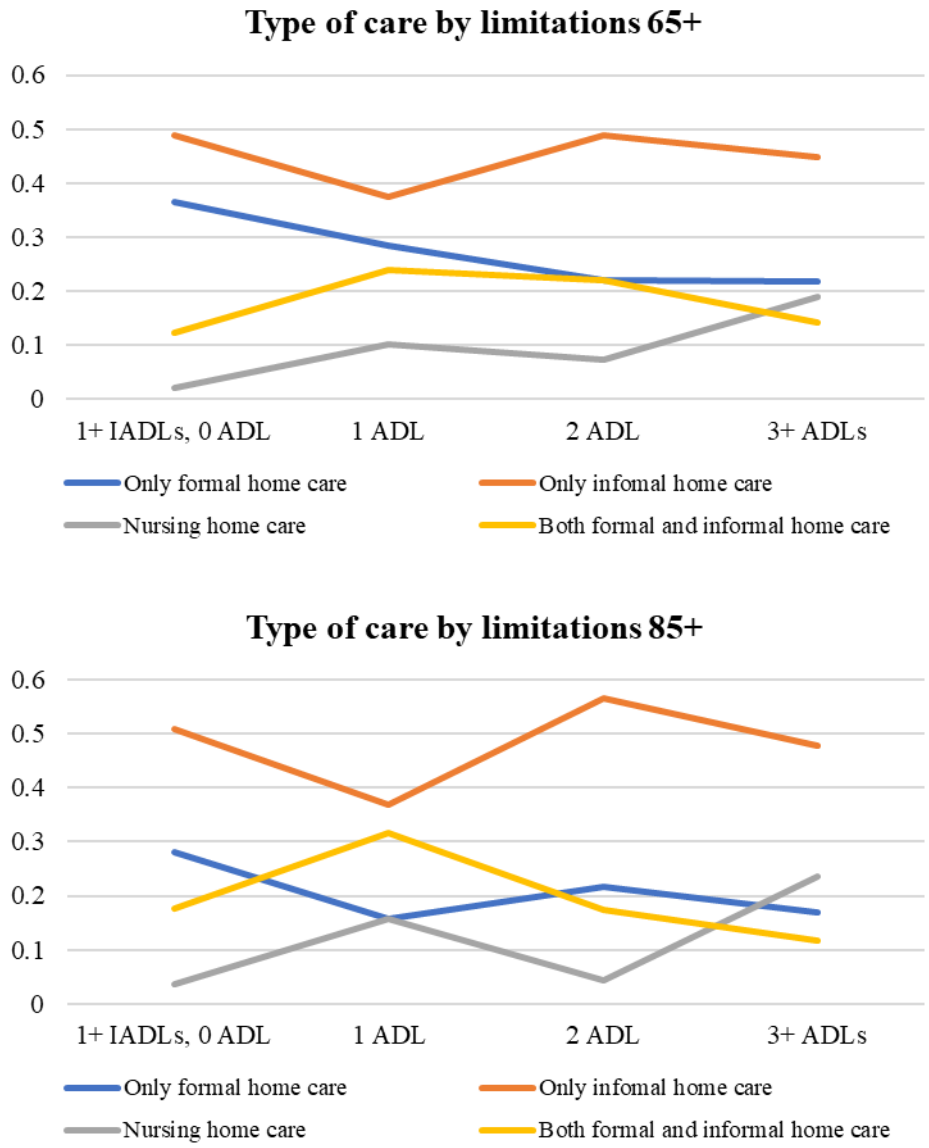
Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017). Respondent weights are used for all calculations. The care variable is defined as either being in a nursing home for more than 100 days or having received either formal or informal home help with ADLs, IADLs. The nursing home population included in the Spanish sample has been considered.

Figure 6: Type of Care Received by Age.
Spain, 2017.



Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7; 2017). Respondent weights are used for all calculations. The care variable is defined as either being in a nursing home for more than 100 days or having received either formal or informal home help with ADLs, IADLs. The nursing home population included in the Spanish sample has been considered.

Figure 7: Type of Care Received by Age and Limitations. Spain, 2017.



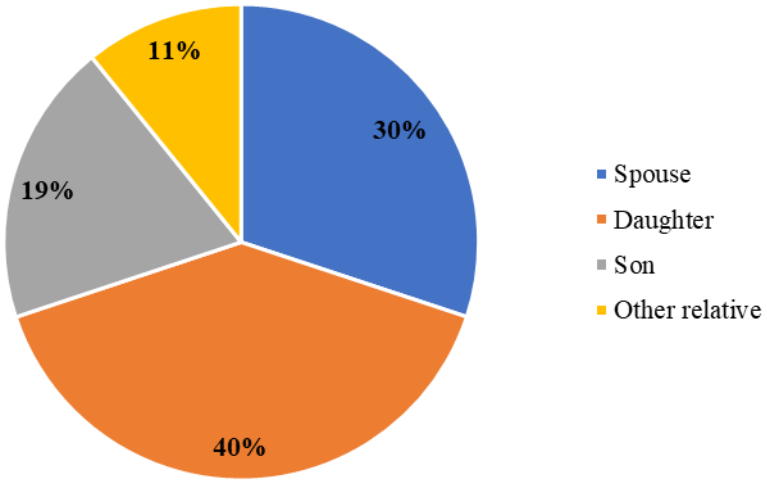
Fuente: Data are from the Survey of Health, Ageing and Retirement in Europe (using waves 6 and 7). Informal help is defined as help provided without pay or by a paid relative, while formal help is paid help by a non-relative. Help can be with ADLs, IADLs, or managing money due to a health problem. ADLs and IADLs are defined as before.

Table 8: Home Care Provision – Population Estimates Spain, 2017.

	All	65 Plus	85 Plus
Formal Helpers - ADL/IADLs	503,433		
Relative to 65+/85+ Population	(0.058) (0.41)		
Relative to 18-64 Population	(0.017)		
Informal Helpers - ADL/IADLs	2,082,579	1,446,502	636,077
Relative to 65+/85+ Population		(0.076)	(0.21)
Relative to 18-64 Population		(0.049)	(0.022)
All Helpers - ADL/IADLs	2,586,012		
Relative to 65+/85+ Population			
Relative to 18-64 Population			
Observations SLFS	*1812*		
Observations SHARE	*3870*	*3280*	*590*

Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7) and Spanish Labour Force Survey (SLFS) for formal care. Respondent weights are used for all population estimate calculations. Those providing help to nursing home residents are automatically excluded from all calculations. ADLs and IADLs are defined as before. Informal help is defined as help provided without pay or by a paid relative, while formal help is paid help by a non-relative. For formal care, we cannot distinguish the population attended.

Figure 8: Informal Caregivers by Relationship to Care Recipient. Spain, 2017.



Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7).

Table 9: Distribution of Hours of Help Received per Week. Spain, 2021.

	65+	85+
5th Percentile	7	14
10th Percentile	14	21
25th Percentile	28	35
50th Percentile	77	91
75th Percentile	112	112
90th Percentile	112	112
95th Percentile	112	112
Mean	68	74
1 Hour per Day or Less	0.06	0.03
5 Hour per Day or More	0.68	0.77
Observations	*3882*	*1744*

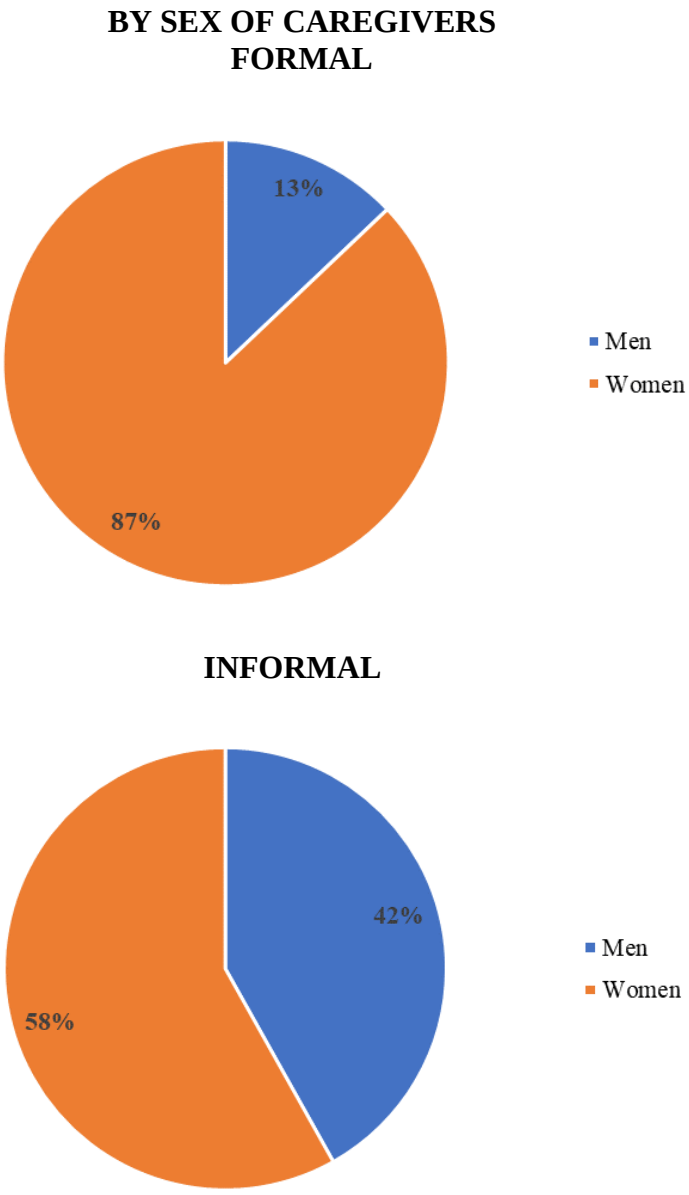
Source: Survey of Disabilities, Dependency and Autonomy (2020). Interviews were conducted between April and August 2021.

Table 10: Distribution of Weekly Hours Received by Type. Spain, 2021.

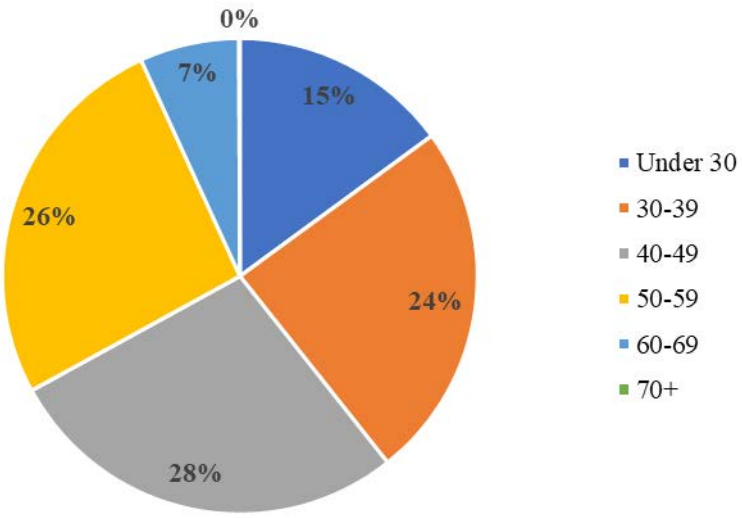
	65+		85+	
	Formal	Informal	Formal	Informal
5th Percentile	7	7	7	14
10th Percentile	7	14	7	14
25th Percentile	7	28	14	35
50th Percentile	14	70	14	84
75th Percentile	35	112	42	112
90th Percentile	84	112	98	112
95th Percentile	112	112	112	112
Mean	29	67	33	72
Observations	*863*	*3739*	*445*	*1683*

Source: Survey of Disabilities, Dependency and Autonomy (2020). Interviews were conducted between April and August 2021.

Figure 9: Demographic composition of Formal and Informal Caregivers. Spain, 2017



BY AGE OF CAREGIVERS
FORMAL



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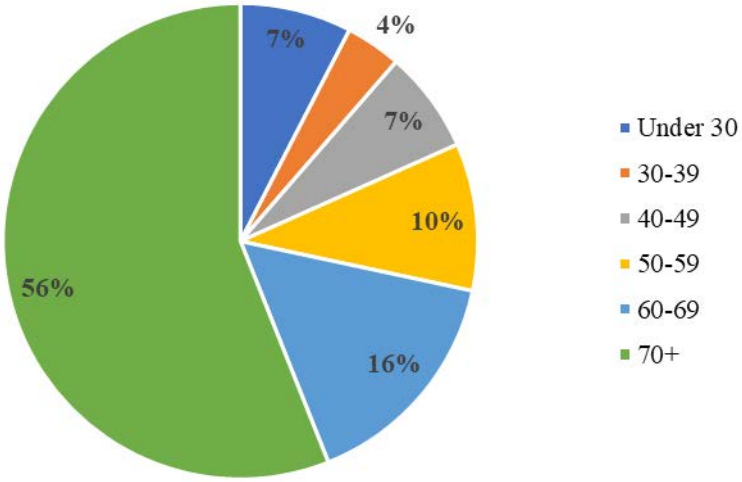

BY EDUCATION OF CAREGIVERS
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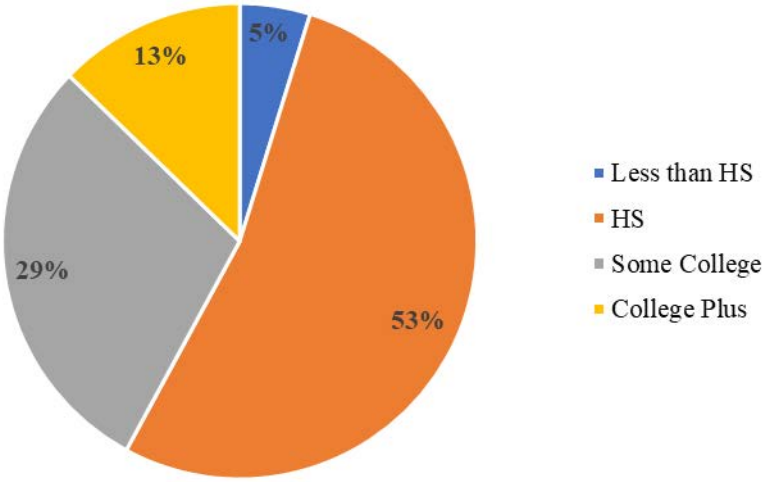

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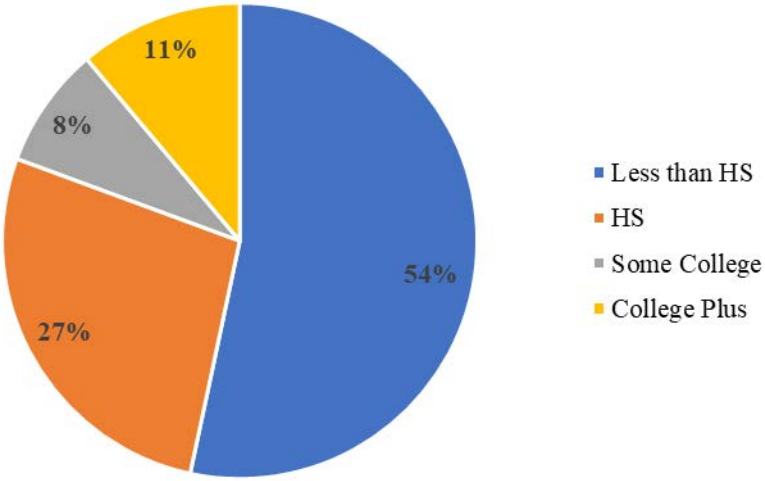


Source: Data are from the Survey of Health, Ageing and Retirement in Europe (wave 7) for informal care and Spanish Labour Force Survey for formal care.

Table 11. Pay for full-time care workers at nursing facilities and in home health care. Spain, 2018.

CARE TYPE	P10	P50	P90	Wage Euros/month	Hourly wage	Part Time
Nursing facilities	877.9	1,305.7	2,078.3	1,437.4	10.92	0.229
Home care	625.6	1,207.6	2,541.6	1,424.3	11.29	0.362
All workers	747.72	1296.9	2355.47	1454,2	11.22	0.284

CARE TYPE	SKILL	P10	P50	P90	Wage Euros/month	Hourly wage	Part Time
Nursing facilities	Low skill	770.9	1,171.2	1,440.3	1,167.7	9.06	0.257
	Inter. skill	858.6	1,274.5	1,775.1	1,301.1	9.92	0.231
	High skill	1,067.8	1,732.2	2,974.8	1,871.6	14.11	0.213
Home care	Low skill	472.4	964.8	1,392.8	964.6	8,31	0.440
	Inter. skill	712.9	1,305.9	2,720.6	1,553.2	12.00	0.331
	High skill	822.3	1,722	3,108.2	1,846.6	14.37	0.316
All Workers	Low skill	567.6	1100.9	1558.1	1088.2	8.90	0.362
	Inter. Skill	770.0	1291.1	2190.5	1421.5	10.88	0.272
	High Skill	994.6	1758.7	3095.7	1901.4	14.52	0.253

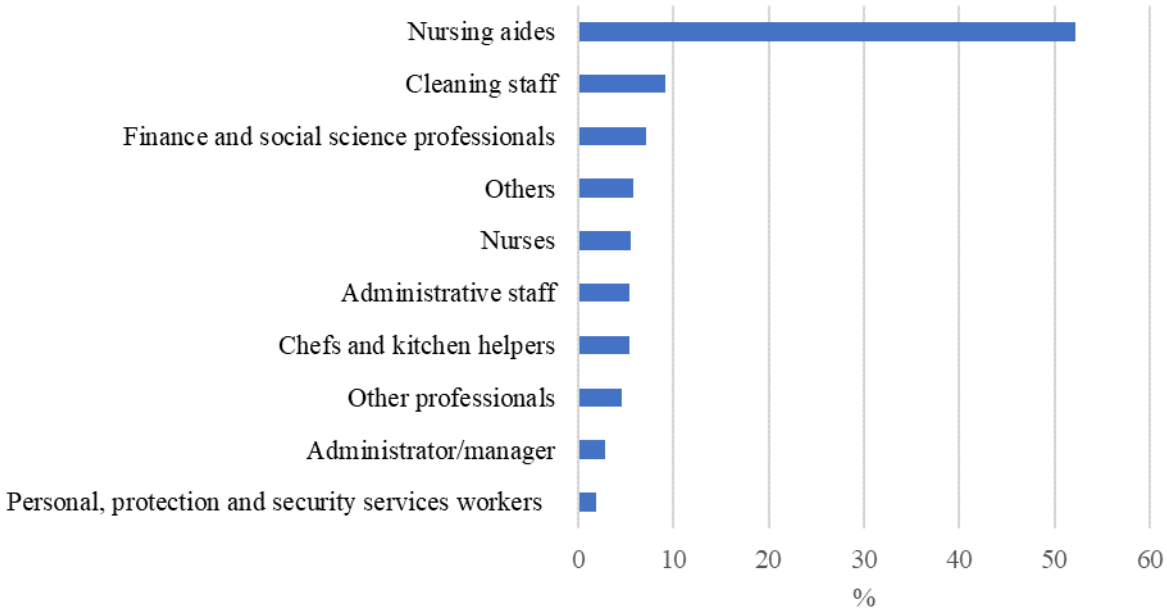
Source: Spanish Continuous Sample of Working Life (2018).
Note: High Skill: corresponds to contribution groups 1 to 4 which imply high education. Intermediate skill: contribution groups 5 to 7 which are administrative and clerical skills. Low skill: contribution groups 8 to 10.
Group 1: Engineers and Graduates. Group 2: Technical Engineers, experts and qualified assistants. Group 3: Administrative and Workshop Managers. Group 4: Assistants without official qualification. Group 5: Administrative Officers. Group 6: Juniors. Group 7: Administrative Assistants. Group 8: First and Second Category Officials. Group 9: Third Category Officials and Specialists. Group 10: General assistants without qualifications. Hourly wage has been obtained combining wages from the Continuous Sample of Working life and the Quarterly Survey of Labor Cost (INE, 2018).

Table 12: Absolute number of nursing homes, beds, and occupancy rate. Spain, 2019.

	Spain, 2019
Nursing homes	5,542
Fraction public nursing homes	25.89%
Fraction private nursing homes	74.11%
Beds	399,417
Fraction public beds	61.90%
Fraction private beds	38.10%
Nursing home residents	250,708
Pop 65+	9,217,464
Occupancy rate	62.76%
Nursing home size	72.07
Coverage	4.33%
Beds per pop 65+	0.043

Source: IMSERSO.
Occupancy rate is defined as the percentage of beds occupied in nursing homes.
Nursing home size is defined as the number of beds per nursing home facility.
Coverage is defined as the percentage of population 65+ who has a nursing home bed.

Figure 10. Percent distribution of nurses, aides, and social workers at care facilities.
Spain, 2019 (second quarter).



Source: Economically Active Population Survey - EPA. Notes: Administrative staff includes legal and social services support professionals. Nursing aides includes auxiliary technicians of pharmacy and health emergencies.

Table 13: Distribution of nursing homes occupancy rate and beds across states. Public and private nursing home places. Spain, 2019.

REGION	NH places	NH users	Occupancy rate
Andalusia	45.543	21.919	48,1%
Aragon	19.318	6.817	35,3%
Asturias	15.204	5.987	39,4%
Balearic Islands	6.573	5.334	81,2%
Canary Islands	9.994	9.498	95,0%
Cantabria	6.444	4.401	68,3%
Castile and León	48.089	42.501	88,4%
Castilla-La Mancha	28.695	28.428	99,1%
Catalonia	65.379	44.746	68,4%
Valencia	27.248	16.657	61,1%
Extremadura	14.855	10.211	68,7%
Galicia	21.704	8.674	40,0%
Madrid	52.882	52.830	99,9%
Murcia	5.395	5.395	100,0%
Navarre	6.664	5.339	80,1%
Basque Country	21.765	14.819	68,1%
La Rioja	3.235	1.926	59,5%
Ceuta	199	199	100,0%
Melilla	231	227	98,3%
Spain	399.417	250.708	62,8%

Source: IMSERSO and Jimenez-Martin and Viola (2022).
Note NH users: Aragon, Canary Islands and Extremadura, data 2016. Galicia, data 2017.

Part III: The Cost of Long-Term Care

Table 14: Formal care costs, annual
Spain, 2019. (million €)

Types	Number of users	Total spending (million €)
Nursing home (public)	155,439	3,979
Nursing home (private)	95,269	3,342
Home health (public)	296,927	1,742
Home health (private)	29,644	498
Public cash subsidies	426,938	1,277

Source: IMSERSO, SHARE (wave 7) and Inforesidencias. Figures are expressed in 2019 euros.

Notes:

- *Public nursing costs: have been calculated taking into consideration the number of people who receive the benefit directly in kind and those who receive it through the service-linked benefit (i.e., through a private provider because a public place is not available). In both cases, the average co-payment percentage borne by users has been deducted.*
- *Private nursing costs: include (i) the co-payment borne by users who have a public place and (ii) the cost of the private place in the case of those who have resorted directly to a private nursing home. To estimate the cost of private residences, the number of users of private residences (inf_ssppmmesp2019.pdf (imserso.es)) was multiplied by the average price of a private residence (1,830 euros/month). (inforesidencias.com)*
- *Public home care costs: have been calculated considering the number of users who receive the benefit directly and those who receive it through the service-linked benefit (because there is no public provider available). The (average) number of hours was multiplied by the price and the (average) co-payment borne by the user was deducted.*
- *Private home care costs: includes two components: (i) the co-payment borne by those who receive the public service and (ii) the cost of private home care for those who opt for this type of care and pay 100% of the cost of the service.*
- *The cost of public cash subsidies has been estimated as the product of the amount of the benefit associated with the average distribution by degree of dependency (2019 - Instituto de Mayores y Servicios Sociales (imserso.es)), discounting the co-payment (according to the economic capacity of the users). In addition, the cost associated with the payment of caregivers' social security contributions has been included.*
- *Average co-payment and average prices for public nursing home and public home home care from: Servicios sociales dirigidos a personas mayores en España - Instituto de Mayores y Servicios Sociales (imserso.es)*
- *Average cost of private home care for those who opt for private home care has been estimated using SHARE (wave 7).*
- *Official data for number of recipients of home health and number of residents in nursing homes from 639265f6-27c5-4a86-6bfb-ab0a4a0b8c07 (imserso.es)*
- *The percentage of service-linked benefit recipients who have used it for home health is 18.62% (of total home health recipients) and the percentage of service-linked benefit recipients who have used it for nursing home is 45.89% (of total nursing home recipients). These percentages have been obtained from* estudio_evaluacion_saad_completo.pdf (mdsocialesa2030.gob.es).

Table 15: Informal Care Valuation
Spain, 2019.

	I	II
Valuation (millions €)	5,096	11,642,81
Total Hours Informal Help (millions)	1,252.05	1,252.05
Probability of Working	0.37	0.37
Wage * Probability of Working	4.07	
Wage if Working	11	
Observations	3,280	3,280

Hours of informal caregiving per week from European Quality of Life Survey (2016).
Average wage of working caregivers (11 €/hour) from Wage Structure Survey, 2019).
Average wage of a formal caregiver: 8.31 €/hour (Table 11).
Cost I: the Wage Structure Survey has been used to estimate a wage equation using as explanatory variables: age, sex, level of education and region of residence. These same characteristics have been used to estimate the probability of being working, in this case, using the Labor Force Survey. These results were applied to SHARE to obtain the predicted probability of working and the predicted wage of the caregivers. Next, we obtained the average predicted unconditional

wage of caregivers as the average of the predicted probability of work multiplied by the predicted wage conditional on working. Finally, the value of informal care is equal to the product of the predicted unconditional times the total hours of informal care.
Cost II: First, the complementary of the predicted probability of working for caregivers was multiplied by the wage of formal caregivers. Second, the predicted unconditional wage was added to this result, and finally, the sum was multiplied by the total hours of informal care.

Table 16: Total Costs by Type of Care and Source Spain, 2019 (in million €). Part A. Millions of euros

Care Type	Source	Cost I (Annual)	Cost II (Annual)
Nursing Home	Public	3,979	3,979
	Private	3,342	3,342
	All	7,321	7,321
Home Care	Public	1,742	1,742
	Private	498	498
	All	2,240	2,240
Informal Care	Private	5,096	11,643
Total	Public	5,721	5,721
	Private	10,103	15,483
	All	15,824	21,204

See footnote of Table 16.
For comparison purposes, public expenditure on cash subsidies amounts to 1,277 million € (discounting copayment)

Part B. In percentage of GDP (2019)

Care Type	Source	Cost I (Annual)	Cost II (Annual)
Nursing Home	Public	0.32	0.32
	Private	0.27	0.27
	All	0.59	0.59
Home Care	Public	0.14	0.14
	Private	0.04	0.04
	All	0.18	0.18
Informal Care	Private	0.50	0.93
Total	Public	0.46	0.46
	Private	0.81	1.24
	All	1.27	1.70

See footnote of Table 16. GDP (2019): 1,245,513 million euros.
For comparison purposes, the percentage of cash subsidies with respect to GDP amounts to 0.10%.