Case study

Germany

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Abstract

Germany is one of the oldest countries in the OECD. Some 22% of the population is 65 and above, and 6.2% are 80 years and older (OECD 2020a). Its population is projected to both age and decrease in size. Net immigration and recent increases in the birth rate are unlikely to offset these trends. The result is an increasing dependency of long-term care (LTC) beneficiaries on contributors. Beneficiaries are covered by LTC insurance (LTCI), which was introduced in 1995, making it the "fifth pillar" of the social insurance system. LTCI is mandatory. Roughly 90% of the population is enrolled in social LTCI and contributes with a share of their salary. Contributions are pooled on an aggregate level. Enrolees in the private LTCI scheme build up their own capital reserves over their professional careers to finance future LTC expenses.

In 2019, 4.25 million inhabitants received benefits from the LTCI (Bundesministerium für Gesundheit 2021b). The care needs for beneficiaries are assessed through a test, which allocates the beneficiary to one out of five potential care degrees. Benefits increase with increasing LTC need. Beneficiaries are free to choose between home and residential care arrangements. In home care, they can choose between cash and in-kind benefits. In 2019, almost four out of five beneficiaries received home care, and the remainder were in nursing homes.

The system favours home care over residential care and employs a set of different complimentary benefit schemes for home care to enable beneficiaries to remain at home for as long as possible. Beneficiaries also enjoy free provider choice among all contracted providers. Providers that agree to offer LTC services and be reimbursed by LTCI funds agree to a service contract on the number, content and quality of services, and a reimbursement contract. The *Land* identifies general criteria in framework contracts. In 2019, there were 14 688 home-care providers and 15 380 residential care providers (Statistisches Bundesamt 2020). The rate of providers has doubled over the past three decades, but the number of beneficiaries has tripled, resulting in an increase of beneficiaries per provider. In both sectors, the number of private providers has increased over the past 2.5 decades.

Price-setting in LTC is less formalized than in the inpatient and outpatient sectors. Prices are negotiated at the local level. LTC providers negotiate prices with LTCI funds on an individual basis. In home care, services are weighted based on points that reflect the time intensity and/or the complexity of the services. These points translate into prices. In residential care, prices cover nursing costs, board and accommodation and infrastructural costs. Nursing costs largely result from the ratio of personnel per resident depending on the nursing care needs. Beneficiaries make co-payments for home and residential care services with their own financial resources.

Germany has struggled to balance the increase in expenditures with the increase in the contribution rate to the LTCI scheme and increase in co-payments. Several policy reforms have expanded the number of beneficiaries and the amount of benefits. They have also augmented the LTC workforce and improved their working conditions. As a result, expenditures have tripled over the past three decades. Germany has tripled the contribution rate to accommodate increasing expenditures. At the same time, beneficiaries have experienced increased co-payments. Several policy reforms are in progress. Among them, there is an increase in the LTC workforce, a stepwise augmentation of the minimum salary for LTC workers, and the introduction of nationwide, mandatory staffing regulations by the mid-2020s. These reforms are likely to further increase expenditures. It is not clear whether this will result in a further augmentation of contribution rates, higher co-payment rates for beneficiaries, or alternative solutions.

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1 The context

In 2018, Germany had a population of 82.91 million inhabitants (OECD 2020b)[1]. This makes it the most populous country in the European Union (EU) and the fourth most populous in the OECD after the United States, Mexico and Japan (OECD 2021b). At the same time, it is also one of the oldest countries of the OECD. In 2018, 21.4% of the population was 65 years and above, making it the sixth oldest country after Japan, Italy, Greece, Portugal and Finland (OECD 2020a). In addition, 6.2% of the population was 80 years and above, with only Japan, Italy, Greece and Portugal having higher shares.

Life expectancy has increased, but at a slower pace than the OECD average

In 2018, life expectancy at birth in Germany was 81 years, slightly above the OECD average of 80.6 years (OECD 2020c)[2]. This is a substantial increase from 70.6 years in 1970 (against an OECD average of 69.6 years). However, life expectancy has increased at a lower rate compared with the rest of the OECD countries. A slower improvement in life expectancy can largely be attributed to an increasing burden of disease among older persons. Mortality improvements have slowed down for selected disease groups, such as cardiovascular diseases, and mortality has increased for dementia including Alzheimer's disease (Raleigh 2019).

In 2018, life expectancy was 4.7 years longer for women (83.3 years) than for men (78.6 years) (OECD 2020c). The gender gap has narrowed considerably since the mid-1990s, from formerly 6.1 in 1970 and the largest difference of 6.7 years in 1987. This change has resulted in a life expectancy increase that was steeper for men than for women.

Germany's population is projected to age and to decrease in size

Germany's population is likely to decrease due to an already ageing demographic and birth rate of 1.60, which is considerably below the OECD average of 1.7 and the net replacement rate of 2.1 (OECD 2019b, 2021a; Statistisches Bundesamt 2019b). Projections range between 74 and 84 million by 2060 (OECD 2020b; Statistisches Bundesamt 2019a). The population share 65 years and above is expected to increase from 24% to 30%, and the share of people 80 years and above from 9% to 13% by 2060 (OECD 2020d; Statistisches Bundesamt 2019a).

The fertility rate has increased to 1.60 between 2010 and 2018, after ranging between 1.24 and 1.38 in the 1990s and 2000s. Migration rates have been very volatile. In 2015, Germany had seen a sharp increase in immigration with a net

1 Data for 2019 were not available.

2 Data for 2018 were not available.

immigration of 1.1 million people. This growth was largely due to an increase in the number of asylum seekers. Migration rates have declined since then. In 2018, Germany recorded a net immigration close to 400 000 people (Bundesministerium des Inneren, für Bau und Heimat und Bundesamt für Migration und Flüchtlinge 2020). Migration rates are expected to decrease in the future, and they are unlikely to compensate for a low birth rate and high mortality rate due to a high share of older persons (Statistisches Bundesamt 2019b).

The ageing of the population has correlated with increasing morbidity rates. More than half of the population 65 years and above suffers from at least one chronic disease, faces restrictions in daily living and rates their health as fair to very bad (OECD 2019a; OECD/European Observatory on Health Systems and Policies 2019). These rates are roughly comparable to the OECD average. In 2017, 58.2% of the population 65 and above rated its health as fair to very bad compared to an OECD average of 56.8%. A quarter (24%) reported severe limitations in daily activities, and 13.2% reported very severe limitations in daily living. These rates are slightly better than the OECD averages of 32.8% and 17.3%, respectively (OECD 2019a). In selected disease categories, Germany faces significantly higher rates than other OECD countries. The estimated prevalence of dementia is 20.9%, ranking Germany more than five percentage points higher than the OECD average of 15.3% (OECD 2019a). The gap is expected to widen: By 2060, the rate is expected to increase to 36.8%, compared to an OECD average of 29.1% (OECD 2019a).

2
Long-term care insurance

In 2018, Germany's expenditures for LTC amounted to 2.1% of GDP, including voluntary insurance and out-of-pocket-spending. Expenditures for compulsory government schemes amounted to 1.5% of the GDP, which is below the OECD average of 1.7% (OECD 2019a)[3].

LTCI is the dominant financing scheme for LTC and is mandatory for enrolees in the statutory or private health insurance. Enrolees in a sickness fund for statutory health insurance are automatically enrolled in their respective LTCI fund (social LTCI) and contribute a share of their income. Individuals covered by a sickness fund for private health insurance have to enrol in an LTCI fund of the private health insurance system. Both systems largely provide the same benefits. In 2019, 73.05 million inhabitants were covered by the social LTCI system. Among them, 56.9 million people contributed financially to social LTCI. In contrast, 9.22 million were covered by the private insurance system (Bundesministerium für Gesundheit 2021c; GKV-Spitzenverband 2020).

3 Data for 2019 were not available.

Germany introduced the LTCI as a "fifth pillar "of the social security system in 1995

Social LTCI was introduced in 1995 as a separate sector of Germany's security system making it the "fifth pillar" along with unemployment insurance, social health insurance, the statutory pension scheme and social accident insurance. It was introduced for home care in 1995 and residential care in 1996. Prices for nursing homes should cover both infrastructure and running costs to ensure competitive conditions and incentivize efficiency (Deutscher Bundestag 1993). Rules are largely defined in the 11th book of the Social Code and provide access to a range of LTC services (Busse et al. 2017). Before that, LTC services were partly covered by statutory health insurance funds and partly paid out-of-pocket. This resulted in an increasing number of requests for social aid. Private health insurance funds had started to offer LTCI at the same time. However, services were largely financed by municipalities as part of social welfare if people in need of LTC services were not able to afford them.

Employers and employees contribute to social LTCI with a share of their salary

Social LTCI was conceived as a pay-as-you-go scheme. Total annual revenues finance annual expenses based on the principle of solidarity (Campbell et al. 2010). This is similar to the German health insurance system. Employees contribute to social LTCI with 3.05% (3.30% if without children)[4] with a potential increase to 3.40% (Bundesministerium für Gesundheit 2020). This rate is the same across all employment and age groups, is set by the legislator (§ 55 Art. 1 of the 11th book of the Social Code), and does not differ between social LTCI funds. The contribution is shared equally between employers (1.525%) and employees (1.525%)[5]. Over the past decades, the contribution rate has tripled from 1% in 1995. Employees with earnings below €450 per month, students, non-working spouses and children are exempt from contributions. People who are retired contribute 3.05% to 3.30% of their pensions; since 2002, they have been required to pay the full contribution rate themselves. For selected population groups (e.g. the unemployed), other federal agencies cover the contributions. Contributions are only levied on employment income (up to an annual income of €56 250 in 2020) (Bundesregierung 2019b). Income from other sources (such as capital income) and income above this ceiling are not taken into account.

Financing principles are different under private compulsory LTCI. As with private health insurance, capital reserves should be built up over one's professional career to finance future LTC expenses. Hence, premiums are not income- but risk-related.

4 The add-on payment of 0.25% for employees above the age of 23 without children was introduced in 2005 and is borne entirely by employees.

5 This differs in Saxony, where 1.025% is financed by the employer against 2.025% by the employee. This is due to an additional working holiday in that Land. To compensate for this loss, employers enjoy a lower contribution rate.

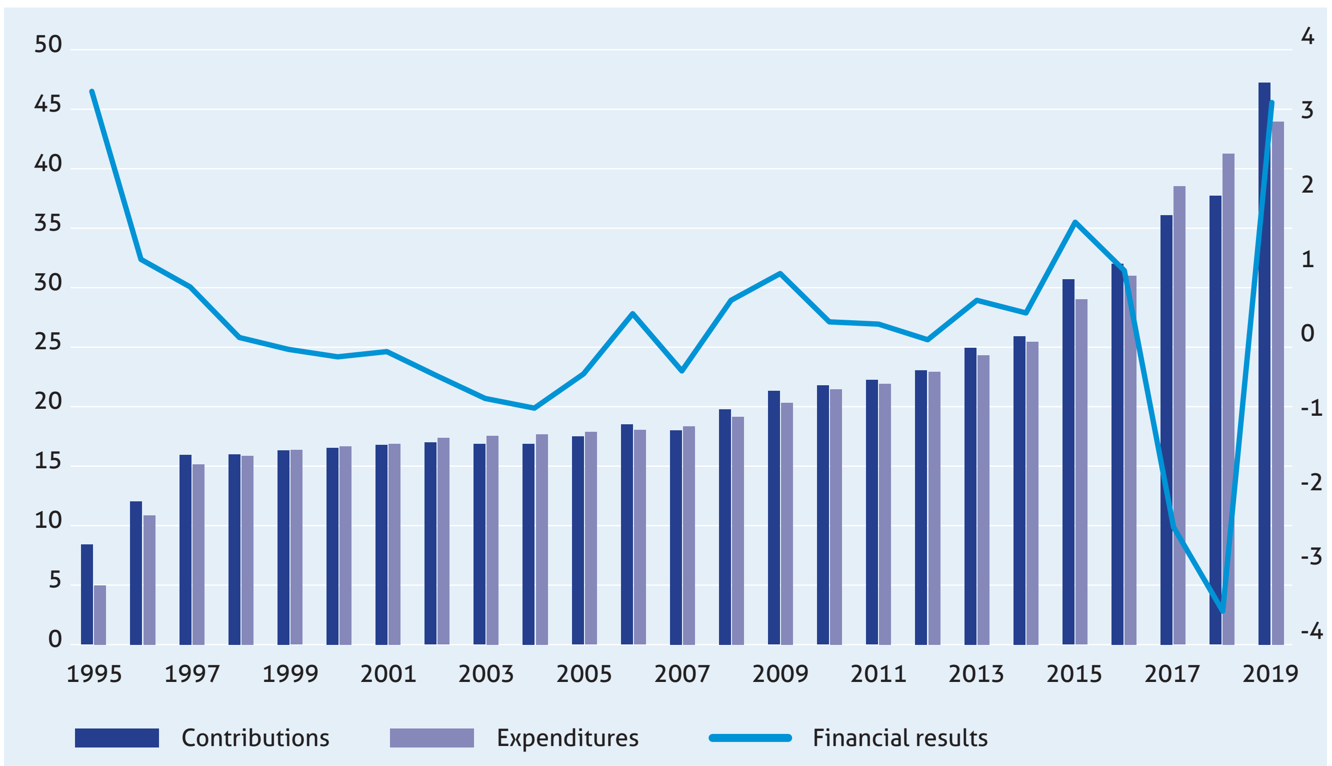
The premium is largely determined by the health status and age of the enrolees. Premiums are not allowed to exceed the maximum contribution rate of the social LTCI (€138.40 per month and €69.90 for civil servants receiving residual private health insurance in 2019). In line with the social LTCI system, employers co-finance the premium up to 50%.

In 2015, Germany introduced a Capital Reserve Fund (Pflegevorsorgefonds) for social LTC to stabilize the contribution rates of future generations (Deutscher Bundestag 2014). Since then, 0.1% of the overall annual contribution rate (more than €1 billion per year) has been directed to this reserve fund managed by the Bundesbank (central bank of the Federal Republic of Germany). The depletion of accumulated reserves will start in 2035, when the "baby boom generation" will become eligible for LTC.

The rate of beneficiaries has increased over the past three decades

In 2019, 4.25 million inhabitants received benefits from social and private compulsory LTCI (Bundesministerium für Gesundheit 2021b). Beneficiaries receive LTC benefits based on their needs. Need is determined by an assessment of care dependence. Beneficiaries are assigned to one out of five care degrees (*Pflegegrade*) based on their restrictions in independent living. Benefits increase with increasing LTC need, ranging from in-kind LTC allowances of €125 per month for the lowest category (care degree 1) to €2005 for residential care in the highest category (care degree 5). The system favours home over residential care. Beneficiaries in home care can choose between cash and in-kind benefits and a combination of both. In 2019, almost four out of five beneficiaries opted for home care. Among them, about four in five selected cash benefits. The number of beneficiaries in social LTCI has almost quadrupled from 1.06 million in 1995 to 4 million in 2019. An increase in the eligibility for LTC benefits in 2017 led to an increase of more than 1.25 million beneficiaries between 2016 and 2019. Benefits have been increased on a recurring basis (Rothgang and Müller 2019). Between 2015 and 2017, Germany expanded the eligibility criteria for LTC and increased the amount of benefits.

Figure 1
Contributions, expenditures (left axis/bar graph) and financial results (right axis/line) of social LTCI, in billion EUR, 1995-2019.



Source: Bundesministerium für Gesundheit (2021b).

An ageing population and the expansion in beneficiaries and benefits lead to increasing expenditures

In 2019, expenditures of the social LTCI amounted to €43.95 billion against contributions of €47.24 billion, leading to a surplus of €3.29 billion (Bundesministerium für Gesundheit 2021c; GKV-Spitzenverband 2020). From 1997 to 2015, both expenditures and contributions have doubled from about €16 and €15 billion in 1997 to roughly €31 and €29 billion in 2015 (Figure 1). A substantial expansion of the benefit scheme in the following years led to an increase in expenditures by 40% by 2019. Contributions have caught up with an increase of 53% over the same period. The social LTCI has a volatile history of surpluses and losses. From 1997 to 2015, changes in contributions and expenditures have resulted in financial results between €-1 billion and €1 billion. The expansion of the benefit scheme in 2015 led to an increase in losses of up to €3.5 billion. Increases in the contribution rate from 2.35% (2.60% if without children) in 2013 to 3.05% (3.30% if without children) in 2019 have finally caught up and led to a surplus of €3.3 billion in 2019.

Expenditures are highest for residential care, with about 32% (€13.04 billion) in 2019, followed by cash benefits representing 29% (€11.74 billion) and in-kind benefits with 12% (€4.98 billion) (GKV-Spitzenverband 2020). Expenditures have increased for all components, but at different rates. The increase has been stronger for home care compared with

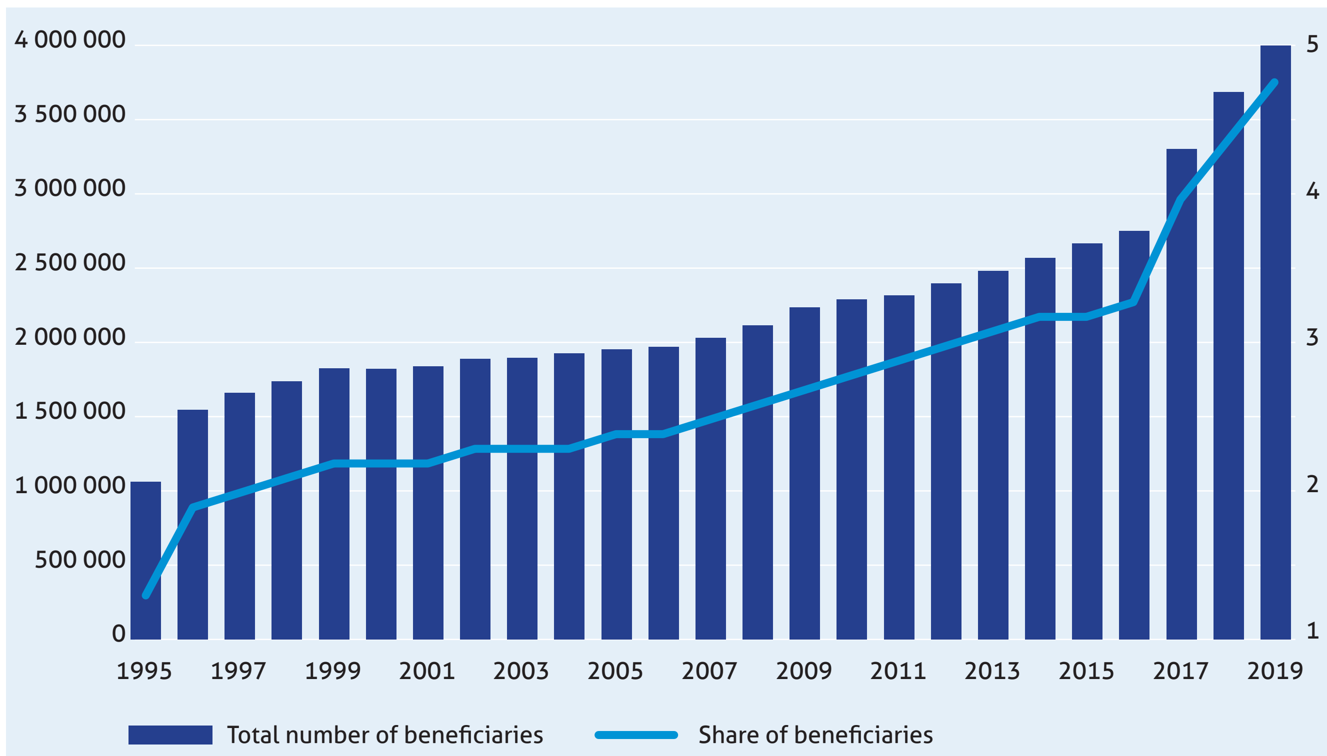
residential care. Expenditures for cash benefits and in-kind benefits have almost tripled from 1997 to 2019, with increases from €4.32 billion to €11.74 for cash benefits and from €1.77 to €4.98 for in-kind benefits. Over the same period, residential care expenditures have doubled from €4.32 billion to €13.04 billion. This increase mirrors a tripling of beneficiaries of home care and a doubling of beneficiaries in residential care.

In 2019, the private LTCI reported €3.21 billion of revenue against €1.57 billion of expenditure (Verband der Privaten Krankenversicherung e.V. 2020).

3 Beneficiaries at a glance

In 2019, 4.25 million inhabitants received benefits from the LTCI[6]. Of them, 3.34 million received home care and 0.91 million received residential care, and 4 million were covered by social LTCI and 0.25 million by private compulsory LTCI (Bundesministerium für Gesundheit 2021b)[7].

Figure 2
Total number of social LTCI beneficiaries (left axis) and as a share of the total population (right axis), 1995-2019.



Note: Residential care was added in 1996.

Source: Bundesministerium für Gesundheit (2021b), Authors' calculations.

6 The Federal Statistical Office reports a total number of 4.13 million beneficiaries. Differences might be due to different sources in reporting.

7 The GKV-Spitzenverband reports 3.87 million excluding beneficiaries in residential care for the disabled (§ 43a of the 11th book of the Social Code)

There has been a large increase in the number of social LTC beneficiaries in recent years (Figure 2). This is due to both an ageing population and to the introduction of new and broader LTC eligibility criteria in 2017. From 1995 to 2016, the number of beneficiaries in the social LTCI had increased from 1.06 million to 2.75 million. The expansion of eligibility criteria for LTC benefits led to a sharp increase in the number of beneficiaries to 3.30 million in 2017, 3.69 million in 2018 and 4 million in 2019, resulting in a growth of more than 1.25 million beneficiaries in the social LTCI compared to 2016. Assuming no changes in this trend, the number of LTC-dependent people is projected to reach 5.06 million in 2060 (Schwinger, Klauber and Tsiasioti 2020).

In 1995, 1.3% of the total population received benefits from social LTCI. From 1996 to 2012, this share increased rather slowly from roughly 2% to 3% and reached 4% following the expansion of the benefit scheme. In 2019, 4.8% of the population received social LTCI benefits.

The number of beneficiaries increases with age and care degree, and is higher for females than for males. In 2019, the share of beneficiaries ranged from 1.8% among those below 75 years old to 76% among those 90 years old and above. All age groups have seen an increase in the share of beneficiaries, which is mainly due to an ageing population and to an expansion of eligibility criteria. The increase is largest among beneficiaries 90 years old and above. The number of beneficiaries below 75 years old increased from 0.44 million in 1995 to 1.43 million in 2019, from 0.30 million to 1.31 million for those 75 to 85 years old, from 0.20 million to 0.71 million for those 85 to 90 years old, and from 0.12 million to 0.56 million for those 90 years old and above (Bundesministerium für Gesundheit 2021a). The share of beneficiaries within their age group (quota of care) increases by age. It amounts to less than 2% among those below 75 years old, roughly 20% among those 75 to 85 years old, about 50% among those 85 to 90 years old and increases to more than 75% among those 90 years old and above (Gesundheitsberichterstattung des Bundes 2020a)[8]. The rate has increased across all age groups. In 1999, the share amounted to 0.9%, 14%, 38% and 60% in the aforementioned age groups.

In 2019, roughly 62% of the beneficiaries were female. The share of female beneficiaries among all beneficiaries has slightly declined from 68% in the late 1990s and 65% in the mid-2000s due to a steeper growth rate in the number of beneficiaries among men (Bundesministerium für Gesundheit 2021a). The gender gap widens with increasing age. For those 75 years old and below, the share of female beneficiaries within their age group equals the share of males. The female quota of care is higher for females than for males and the difference increases with age, ranging from less than 2% for both females and males below 75 years old to 81% among

8 Total number of beneficiaries reported by the Federal Statistical Office and Federal Health Monitoring differs slightly from the German Federal Ministry of Health.

females 90 years old and above compared to 64% among men in the same age group. This is an increase from 65% and 42% among females and males 90 years old and above in 1999 (Gesundheitsberichterstattung des Bundes 2020a).

Four out of five beneficiaries receive home care

In 2019, almost four out of five beneficiaries (78%) received LTC services at home. The number of beneficiaries receiving home care by the social LTCI has roughly tripled from 1.06 million in 1995 to 3.14 million in 2019. Over the same period of time, the number of beneficiaries receiving residential care by the social LTCI has more than doubled from 0.38 million in 1995 to 0.86 million in 2019 (Bundesministerium für Gesundheit 2021b).

Beneficiaries in residential care facilities are older and more dependent than those receiving home care. About three quarters of beneficiaries in home care are assigned to care degrees 2 and 3, compared to around half of beneficiaries in residential care being assigned to the more severe degrees 3 and 4. Beneficiaries in home care are younger compared with those in residential care (Figures 3 and 4). The share of home care beneficiaries is largest for beneficiaries between 80 to 85 years old, and declines afterwards. The share of beneficiaries in residential care increases with increasing age, with more than half being 80 years old and above, and almost a quarter being 90 years old and above (Bundesministerium für Gesundheit 2021b).

Figure 3
Total number of beneficiaries of home care by age group and care degree, with 5 being the most severe, 2019. .

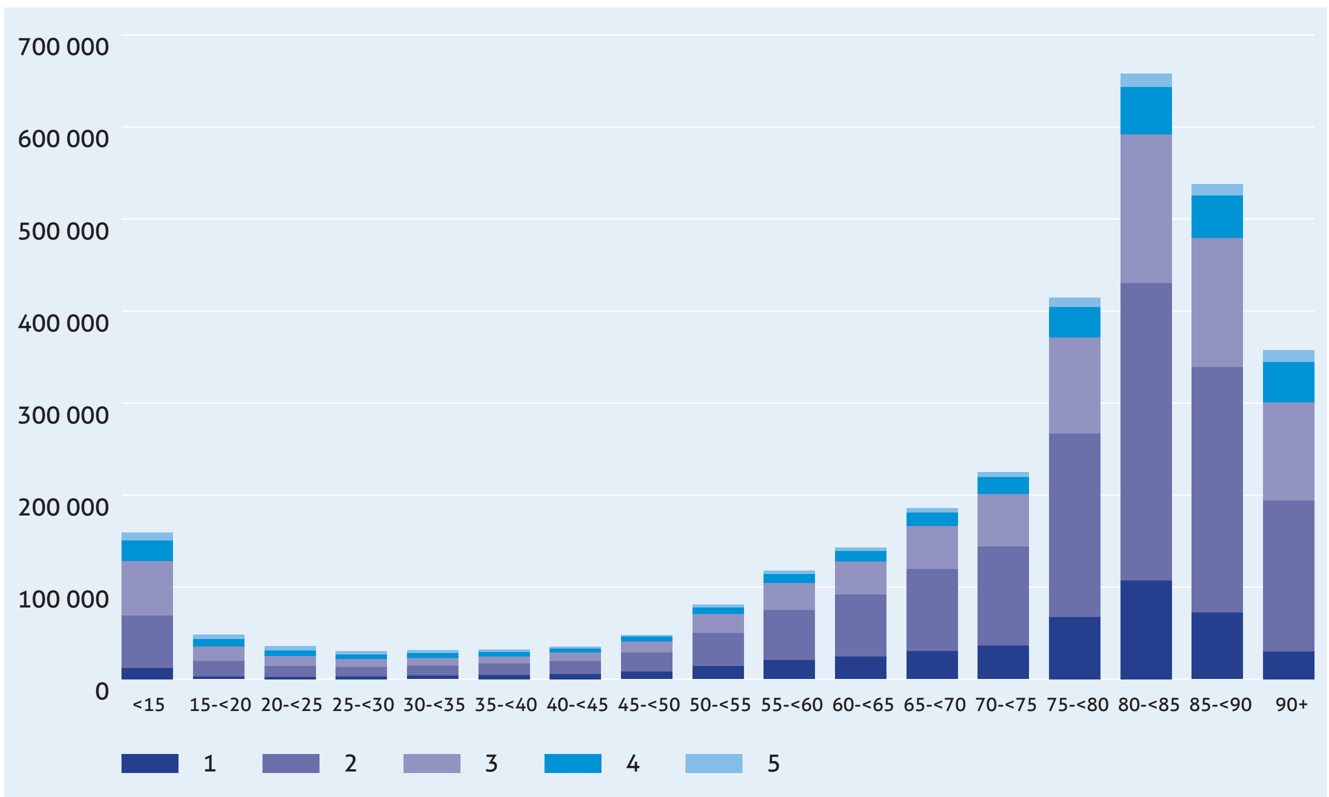
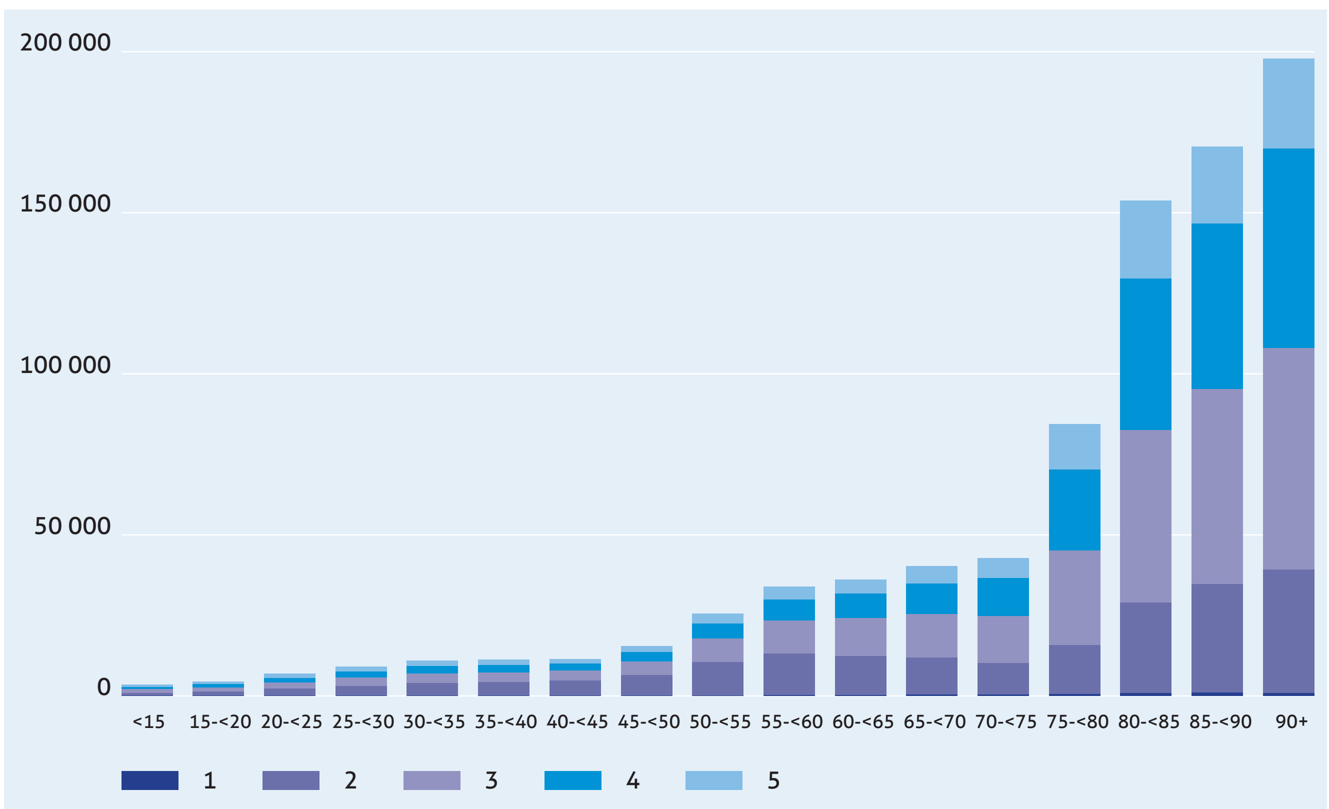


Figure 4
Total number of beneficiaries of residential care by age group and care degree, 2019.



Source: Bundesministerium für Gesundheit (2021b).

3.1 Eligibility for LTCI benefits

LTCI grants access to services on the basis of LTC needs and it is not means-tested. Everyone with LTC needs is entitled to receive the services they require regardless of age, income, wealth, personal circumstances (such as living with a carer) and medical diagnosis (whether physical or cognitive). A needs assessment recognizes whether an individual should receive benefits and the amount. Individuals have to take a needs-based, uniform assessment test, which assigns them to one out of five potential "care degrees" (Pflegegrade) ranging from 1 – "little impairment of independence" to 5 – "hardship". The stages define the amount of benefits that the individual receives.

Table 1
Domains and related points for overall assessment of care dependence

#	Domain	Points
1	Mobility	10
2	Cognitive and communication skills	15
3	Behaviour and psychological issues	
4	Self-care	20
5	Coping and dealing independently with illness and treatment-related demands and stresses	40
6	Planning day-to-day living and maintaining social contact	15

Source: Medizinischer Dienst der Krankenversicherung (2019).

The procedure is the same across the country, all LTCI funds and age and care groups. The assessment evaluates the individual's ability to manage their life independently in terms of six domains and combines the assessment into a single score between 0 and 100 points (scores in each domain are weighed differently for the overall assessment) (Table 1). The lowest care degree (Pflegegrad 1) is assigned if the total score ranges between 12 and 27 points (of a total of 100 points), the most severe degree (Pflegegrad 5) from at least 90 points. The higher the care degree, the more benefits a person is entitled to under social LTCI. Finally, an individual is considered eligible for LTCI benefits if they require care for a period that is likely to exceed a minimum of six months due to sustained physical, cognitive or mental impairments or health-related requirements[9].

Anyone can refer themselves or be referred for a care needs assessment. For statutory LTCI, this assessment is managed by the Medical Review Board (Medizinischer Dienst der

9 The assessment was modified in 2017. Before then, eligibility was strongly related to somatic illnesses and restrictions of personal hygiene, nutrition and mobility functions. It largely focussed on physical limitations requiring help in performing certain activities, excluding general supervision and support for people with limited psychological and cognitive capacity (Deutscher Bundestag 2015).

Krankenkassen), an independent body contracted by social LTCI funds. The Board contracts an independent medical expert to assess the eligibility and need within three weeks after receiving the application. The evaluators are generally medical doctors, but can also be nurses who have received ad-hoc and ongoing training. In 2019, individuals applied for a total of 1.17 million assessments and 78% of them resulted in a positive decision. Expansions in the benefit scheme have also translated in a higher rate of positive decisions, which ranged slightly above 70% prior to the expansion (Bundesministerium für Gesundheit 2021c).

3.2 Entitlements for LTCI benefits

In Germany, the system favours home care over residential care (§ 3 SGB XI). It intends to facilitate independent or assisted living at home to enable beneficiaries to remain in their own home for as long as possible. In its design, the system seeks to balance universal entitlement with the self-governance of payers and providers[10] and with individual and family responsibilities.

The amount of entitlements depends on the care degree as determined by an assessment. Benefits increase with increasing care degree (Table 2). The entitlements are fixed for each of the five degrees of care and do not vary according to where a person lives, or their age, means or personal circumstances. Entitlements provide partial but not full coverage of costs. They guarantee up to a minimum level of care. Beneficiaries make co-payments with their own financial resources.

The pooling of risk at the national level is at the heart of the system, based on the premise that no individual should have to bear catastrophic care costs. Instead, costs are shared across society.

Table 2
Monthly financial entitlement by LTC service by care degree, in EUR, 2019.

Care degree	LTC allowance	Home-care cash benefits	Home-care in-kind/ day/night care	Residential care
1	125			
2	125	316	689	770
3	125	545	1298	1262
4	125	728	1612	1775
5	125	901	1995	2005

Source: Bundesministerium für Gesundheit (2021b).

10 In 2004, self-governance was strengthened through the establishment of the Federal Joint Committee, a major payer–provider structure given the task of defining uniform rules for access to and distribution of health care, benefits coverage, coordination of care across sectors, quality and efficiency.

The system favours home care over residential care

All beneficiaries receive a monthly in-kind contribution of up to €125 irrespective of their care degree and care setting. It serves as a voucher and is restricted, e.g. day and night care services, short-term care and short-term support for carers. Beneficiaries in home care can choose cash benefits, in-kind benefits or a combination of both. Beneficiaries who opt for cash benefits (a "cash allowance") are responsible for organizing their own LTC care. They generally rely on informal carers, mostly family members. Informal caregivers can receive additional benefits including financial support for their social insurance contributions and pension entitlement[11]. Beneficiaries who choose cash over in-kind benefits are inspected by local care providers every half year (for care degrees 2 and 3) or quarter (for care degrees 4 and 5). This is intended to offer support and training to carers and ensure that cash beneficiaries are not abused, neglected or financially exploited. In-kind benefits are reserved for professional home care providers. Beneficiaries use their benefits to employ one of 14 688 home care providers.

Germany has introduced several additional benefit schemes to reduce the burden of care for informal and professional LTC workers and to cover reconstruction work and rearrangements. These means can be combined. As a result, the amount of benefits for home care can outperform the amount for residential care. First, beneficiaries can receive up to €40 per month for nursing aids. Second, they can apply for short-term assistance. They can receive up to €1612 per year for up to six weeks for care substitutes (stand-ins) to reduce the burden of care on informal and professional LTC workers, or up to €1612 for short-term stays, day or night stays of up to 8 weeks in residential care. Both schemes are only available for care degrees 2 to 5. They are intended to allow for interim support to reduce the workload on (informal) carers. Beneficiaries who intend to share their apartment with other beneficiaries can receive €2500 per person or €10 000 per shared apartment and up to €214 per month for additional support with daily living. Additionally, they can apply for €4000 to €10 000 per person or shared apartment per intervention. These means can be combined. Germany may increase the benefits of home care and ease the administrative procedure. It plans to introduce an annual nursing care budget for short-term care and interim support (Bundesministerium für Gesundheit 2020)

Financial support for residential care amounts to €689 to €1995 for part-time residential care, and €770 to €2005 for full-time residential care.

11 There are more than 900 000 people registered as informal caregivers at the pension insurance. The LTCI pays pension contributions for these people.

Most beneficiaries opt for cash benefits for home care, but expenditures are highest for residential care

Residential care represents the highest single cost component. In 2019, expenditures for residential care amounted to €13.04 billion, compared to €11.74 billion for cash benefits and €4.98 billion for in-kind benefits in home care covered by social LTCI (GKV-Spitzenverband 2020). These cost components represent more than 70% of all LTC expenditures. Other benefits covered by the scheme include day care, short-term care, respite care as well as the costs of social protection for informal caregivers and medical devices and the costs for refurbishments and rearrangements to adapt homes to the needs of older persons.

Cash benefits are the most frequent support. In 2019, roughly 50% of all beneficiaries received cash benefits. Out of all beneficiaries receiving home care, 84% received cash benefits compared to 16% choosing in-kind benefits (both including combinations with other services of up to 50%) (Bundesministerium für Gesundheit 2021b).

Out of all beneficiaries, about half opted for cash benefits, about 20% for a combination of cash and in-kind benefits, only 4% for in-kind benefits and the remainder opted for alternative means of short-term support (Bundesministerium für Gesundheit 2021b).

Benefits have been expanded since 1995, most notably in 2015/2017

From 2008 to 2017, benefits have widened across all schemes at irregular intervals, and new types of benefits have been added after remaining on the same level from 1995 to 2008. In-kind benefits in care degrees 2 to 5 increased from €384-1918 in 2008 to €689-1995 in 2017. Cash benefits increased from €205-665 in 2008 to €316-901 in 2017. In line with this change, residential care benefits increased from €1023-1688 in 2008 to €770-2005 in 2017 (Rothgang and Müller, 2019).

In 2015, Germany increased benefits for the 2.7 million beneficiaries at that time. LTC benefits had increased by €1.4 billion per year for people living in their private homes and by €1 billion per year for people living in residential facilities. The services available for care at home were expanded. Staff numbers in residential care homes had also increased significantly. Nursing-centred LTC services still remain essential in LTCI, but regular benefits were expanded by services for personal support and daily living assistance. The three care levels (Pflegestufen) have been replaced by five new care degrees (Pflegegrade). Because the new assessment criteria led to an increase in the number of people entitled to LTC services, LTC benefits have been set to increase by more than €2.5 billion.

4
Providers of home and residential care

Over the past three decades, Germany has seen an increase in home care and residential care providers. However, the increase in beneficiaries has been even steeper, leading to a higher number of beneficiaries per provider. Both sectors recorded a change in the market structure from private non-profit to private for-profit providers. The change is more pronounced in home care than in residential care. The staff in home and residential care has not kept up with the increase in beneficiaries and faces increasing shortages.

4.1 Home care providers

In 2019, 14 688 providers offered home care services (Table 3). The number had increased by around 36% compared to 1999 (from a total of 10 820 providers). At the same time, the number of beneficiaries receiving support by home care providers doubled from 415 289 to 982 604. This resulted in an increase of beneficiaries per home care provider by almost 75%, from 38.4 beneficiaries in 1999 to 66.9 in 2019.

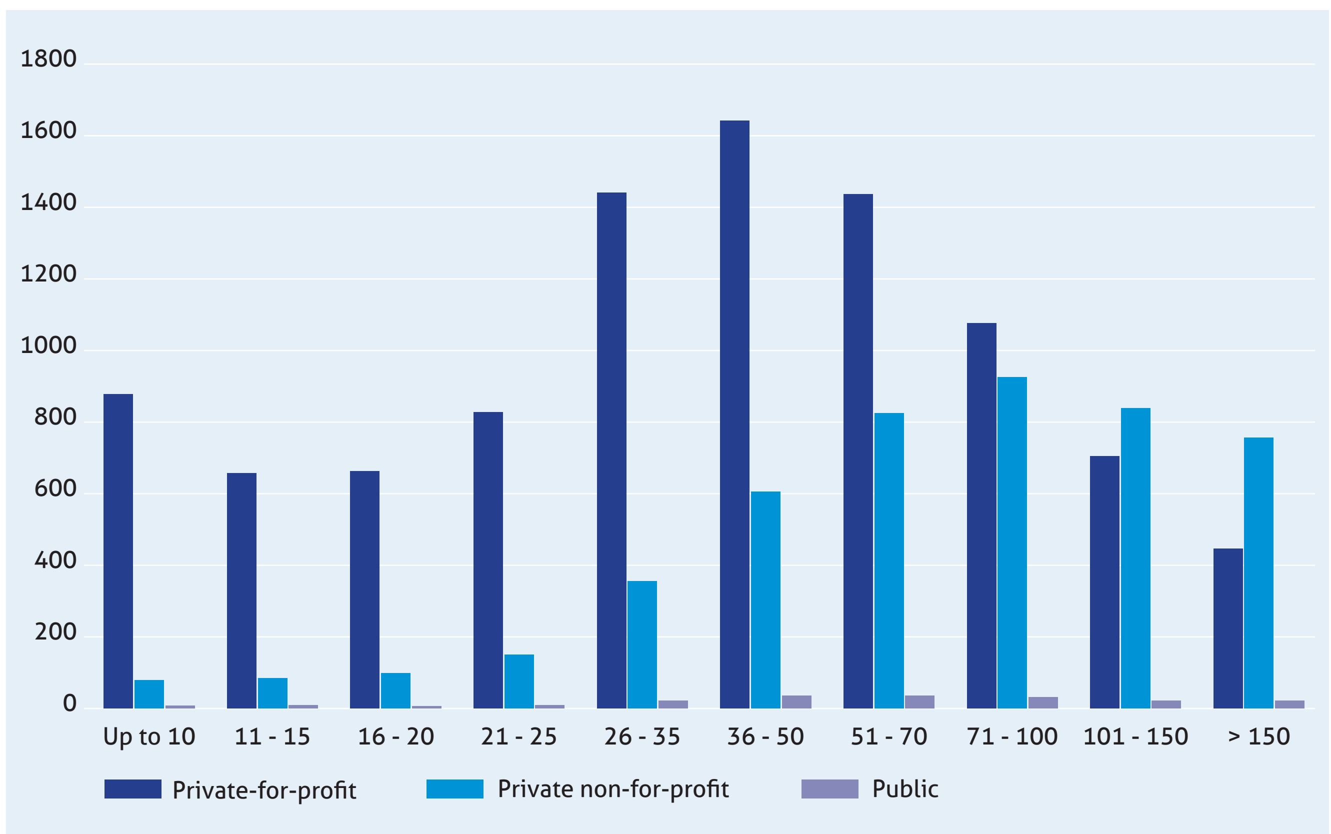
Table 3
Comparison of the number of providers, beneficiaries and beneficiaries per provider by ownership, 1999 and 2019, home care

	1999		2019	
	Total number	%	Total number	%
Total number	**10 820**	**100**	**14 688**	**100**
No. private non-profit (%)	5103	47.16	4720	32.14
No. private for-profit (%)	5504	50.87	9770	66.52
No. public (%)	213	1.97	198	1.35
Total no. beneficiaries	**415 289**	**100**	**982 604**	**100**
No. private non-profit (%)	259 648	62.52	453 230	46.13
No. private for-profit (%)	147 804	35.59	514 243	52.33
No. public (%)	7837	1.89	15 131	1.54
Ratio beneficiaries/provider	**38.4**		**66.9**	
Ratio private non-profit	50.9		96.0	
Ratio private for-profit	26.9		52.6	
Ratio public	36.8		76.4	

Source: Gesundheitsberichterstattung des Bundes (2019).

All ownership types have seen an increase in the number of beneficiaries per provider over the past two decades (Table 3). Among them, private for-profit providers tend to be smaller organizations than other ownership types (Figure 5). The number of private for-profit providers almost doubled from 5504 in 1999 to 9770 in 2019. At the same time, the number of beneficiaries more than tripled from 147 804 in 1999 to 514 243 in 2019. As a result, the ratio of beneficiaries per provider almost doubled for for-profit providers. Over the same period of time, the number of private non-profit providers has declined from 5103 in 1999 to 4720 in 2019, but the number of beneficiaries increased by 75% from 259 648 in 1999 to 453 230 in 2019, resulting in an almost doubling of beneficiaries per provider from 50.9 in 1999 to 96.0 in 2019. The increase in the ratio of beneficiaries to providers was strongest for public providers. The number public providers declined from 213 in 1999 to 198 in 2019. At the same time, the number of beneficiaries doubled from 7837 in 1999 to 14 376 in 2019, resulting in a more than doubling of the number of beneficiaries per provider (76.4 in 2017 compared to 36.8 in 1999) (Table 3) (Gesundheitsberichterstattung des Bundes 2019).

Figure 5
Number of providers by number of beneficiaries per ownership, 2019, home care



Source: adapted from Statistisches Bundesamt (2020).

4.2 Residential care providers

In 2019, there were 15 380 residential care facilities with a capacity of 969 553 beds, which corresponded to roughly 53.6 beds per 1000 inhabitants 65 years old and above. This is above the OECD average of 47 beds per 1000 inhabitants (OECD 2019a). Some 73.6% offered full-time residency. The number of residential care providers increased by about 74% from 1999[12] to 2019 (Table 4). The increase was higher for residential care than for home care, which increased by around 36% over the same period of time. The number of beds increased by 45% over this same period. However, the number of beneficiaries almost tripled over the same period of time.

Table 4
Comparison of the number of providers, of places available and of residents per provider by ownership, 1999 and 2019, residential care

	1999		2019	
	Total number	**%**	**Total number**	**%**
Total number (full-time residency)	**8 859 (8 073)**	**100**	**15 380 (11 371)**	**100**
No. private non-profit (%)	5017	56.63	8115	52.76
No. private for-profit (%)	3092	34.90	6570	42.72
No. public (%)	750	8.47	695	4.52
Total number of places available (full-time)	**645 456 (621 502)**	**100**	**969 553 (877 162)**	**100**
No. private non-profit	406 705	63.01	521 720	53.81
No. private for-profit	166 637	25.82	393 308	40.57
No. public	72 114	11.17	54 525	55.62
Ratio residents/provider	**66[1]**		**62**	
Ratio private non-profit	73[1]		65	
Ratio private for-profit	50[1]		58	
Ratio public	84[1]		76	

Note: [1]Data from 2001. No data was available for 1999.
Source: Gesundheitsberichterstattung des Bundes (2020b) and Statistisches Bundesamt (2020).

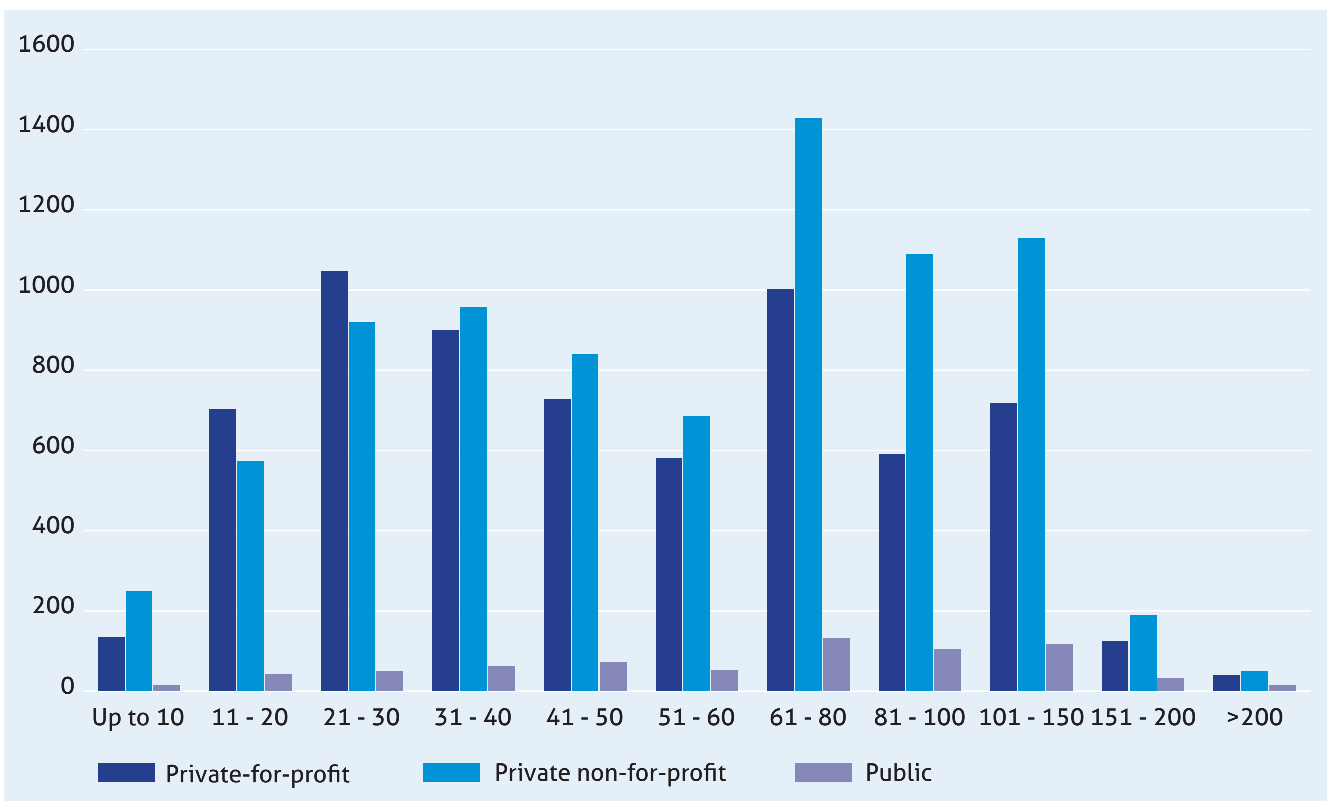
In contrast to home care, private non-profit providers dominate the market, but their market share is declining (Table 4). The share of private non-profit providers declined by almost 4 percentage points following a steep increase in the number of private for-profit providers from 1999 to 2019. From 1999 to 2019, the number of private non-profit providers increased by 62%, whereas the number of private for-profit providers increased by 112% over the same period of time. The increase

12 No data from pre-1999 was available.

was more pronounced for the number of beds offered, which increased by almost 30% in private non-profit providers, but by 136% in private for-profit providers during the same period. Public providers declined in terms of both the number of facilities and beds available (Gesundheitsberichterstattung des Bundes 2020b).

Similar to home care, residential care private for-profit providers tend to be smaller organizations than providers by other ownership types. More than half (53%) of private providers of residential care serve less than 50 beneficiaries, as compared to 44% for not-for-profit and 35% for public providers (Figure 6).

Figure 6
Number of providers by number of places available per ownership, 2019, residential care



Source: adapted from Statistisches Bundesamt (2020).

4.3 LTC workforce in home and residential care

In 2019, the LTC workforce amounted to 1.22 million people. The rate of LTC workers per 100 inhabitants 65 years and above was slightly above the OECD average, at 5.1 compared to 4.9 (OECD 2019a). Of all LTC workers, about one third (421 550 people/ 228 268 full-time equivalents (FTE)) was employed in home care and the remaining two thirds (796 489 people/557 307 FTE) were employed in residential care (Statistisches Bundesamt 2020). The workforce is predominantly female and works part-time. In 2019, more than 80% of LTC workers in both residential and home care were female and less than a third (28% in both sectors) worked full-time.

Both sectors have seen increases in the number of staff. The number of LTC workers in FTE has more than doubled in home care (183 000 people/125 400 FTE in 1999 compared to 421 550 people/288 268 FTE in 2019). The increase was less steep in residential care (440 900 people/345 100 FTE in 1999 compared to 796 489 people/557 307 FTE in 2019).

In 2019, LTC workers earned a median gross salary of €2146-3032 per month (FTE-adjusted) depending on their level of qualification (Carstensen et al. 2020). Salaries have increased by about 28% from 2012 to 2019. The salary of LTC workers varies between sectors. In home care, monthly median gross earnings in FTE range from €2039-2721, compared to €2182-3099 in residential care depending on the level of qualification. This is considerably below the median salary of nurses working in hospitals, which ranged from €2939 to €3684 (FTE-adjusted) in the same year depending on their qualification (Carstensen et al. 2020). Germany might see a drift of the LTC workforce from the LTC sector to the inpatient sector (Greß and Stegmüller 2020). A higher salary in the inpatient sector, policy reforms to improve the number and working-conditions of nurses in the inpatient sector, and the merger of three separate vocational training systems to one joint scheme are likely to increase the attractiveness of the inpatient sector (Greß and Stegmüller 2020).

Germany faces shortages in its LTC workforce. In 2019, it recorded 23 500 open LTC positions, and positions remained vacant for up to 200 days (Bundesagentur für Arbeit 2020). The number of vacancies has increased by 110% over the past decade, and shortages are expected to persist. Given Germany's ageing population projections, the demand for LTC workers is likely to increase. The scenarios are very heterogeneous. Projections range from an additional 130 000 to 150 000 LTC workers in FTE required by 2035 against a base-line scenario from 2015 (Flake et al. 2018); other scenarios estimate between 667 000 to 1 million additional LTC workers needed by 2050 (in FTE) against a base-line scenario from 2009 (Schulz 2012).

Germany has introduced a set of policies to increase the number and improve the working conditions of its LTC workforce. From 2010/2011 to 2014/2015, Germany augmented the capacities of vocational training facilities by 10% per year and introduced policies to facilitate the return to the labour force. Furthermore, Germany introduced minimum wages for nurses in 2010 and for all employment sectors in 2014. This improved the salary of nurses in selected parts of the country (Harsch and Verbeek 2012). However, it is unclear whether these measures will be sufficient (Flake et al., 2018). In 2019, Germany started the "concerted action on nursing" (*Konzertierte Aktion Pflege*) to increase the number of LTC workers and to improve their working conditions and salary. In 2020, Germany merged its formerly three vocational training tracks for LTC nurses, general nurses and paediatric nurses and announced a 10% increase in training capacities

(Bundesregierung 2019a; Deutscher Bundestag 2017). Furthermore, it announced an increase of a nationwide, uniform minimum gross salary of €2175-2669 by 2022 depending on the level of qualification (Bundesministerium für Arbeit und Soziales 2020). From mid-2020, Germany is introducing a federal instrument to harmonize the ratio of LTC workers to residents in residential care. An improved ratio of LTC workers to residents is likely to increase expenditures in LTC. It is not clear whether the cost increase will be borne by LTCI funds resulting in higher contribution rates, or by beneficiaries leading to an increase in co-payments (Rothgang and Müller 2019). In 2021, Germany has introduced an act to increase the number of auxiliary LTC nurses by an additional 20 000 in residential care. Additional costs will be covered by the LTCI by providing add-on payments to residential homes and not by increases in co-payments (Deutscher Bundestag 2020a, 2020b). Furthermore, the act discusses making tariff-based salaries mandatory for the accreditation of home and residential care LTC providers (Bundesministerium für Gesundheit 2021b).

5
Choice and service pricing

LTC is understood to be a "concerted action". Germany's 16 *Länder* (states) are responsible for ensuring sufficient LTC to their *inhabitants* (§ 9 SGB XI). LTC legislation differs between the 16 *Länder*, reflecting the federal governance structure of the country. Social LTCI funds, in return, are in charge of providing sufficient LTC to their *enrollees* (§ 69 SGB XI). To do so, they contract with home and residential care providers on the type, content and amount of services they have to provide and their reimbursement (§ 72 SGB XI). Social LTCI funds have to ensure that expenditures do not exceed contributions. The facilities are supervised by the *Land* or the *Kommune*. They have to meet quality criteria to be eligible to offer care. Depending on the *Land*, LTC facilities are supervised by the Land itself (in 10 *Länder*), the municipality (*Kommune*) (in 5 *Länder*) or a joint responsibility by the two (1 *Land*).

Germany has sought to develop a stable and competitive provider market by creating a national regulatory framework to coexist alongside market principles (Nadash and Cuellar 2017). As such, it aims to balance cost containment, social equity, consumer choice and local flexibility. The reimbursement system as laid out in the Social Code aims to foster competition between providers in order to contribute to an efficient service infrastructure through economic incentives. It further stipulates that the care infrastructure must be well-functioning, demand-oriented and cost efficient, and assigns responsibility for service provision to the federal states.

Beneficiaries enjoy free provider choice among those facilities that have contracted with state associations and social LTCI

funds. Benefits do not differ accept private-for-profit, private-non-profit and public providers. Beneficiaries have been able to receive support in advice centres since 2008. However, these centres have been criticized for not operating effectively, offering poor support and being under construction.

5.1 Price-setting in home care

Home care providers negotiate two contracts to provide LTC and to be reimbursed by social LTCI funds. First, they contract care provision with the state associations of the social LTCI funds (§ 72 SGB XI). Second, they have a reimbursement agreement (§ 89 SGB XI) with these state associations and social welfare organizations. Minimum standards are defined in regulatory frameworks at the state level (§ 75 SGB XI).

Contracts on care provision define quality criteria for home care providers and define the services and their content of (instrumental) assisted daily living to be provided by home care providers. Among them are for example hygiene of the beneficiary, food intake, mobility and shopping. Beneficiaries can choose from a set of services. LTCI funds are generally billed monthly.

Prices for home care follow a point system and are negotiated individually. Services are translated into points depending on the time intensity of the services provided and/or their complexity. Some of the services are restricted and can be billed up to three times a day, weekly or twice a year. Furthermore, selected services are mutually exclusive. Points translate into a price (see Table 5 for some examples). The number of points per service and the financial amount per service differs between states and providers. The base value is around €5-6 per 100 points. Prices are economic, efficient and cover the duties of care. Since 2015, costs originating from collective labour agreements cannot be rejected for economic reasons. At the same time, LTCI funds can require evidence on whether reimbursements are used to meet collective labour agreements.

The German Federal Ministry of Health, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth and the Federal Ministry of Labour and Social Affairs are mandated to decide on a uniform fee schedule for home care if deemed necessary (§ 90 SGB XI).

Table 5
Points and corresponding prices for selected services in framework contracts in two Länder, 2019.

	Brandenburg		Bavaria	
	Points	Price (in EUR)	Points	Price (in EUR)
First visit	450	22.64	1000	60.50
Journey (mobility)	84	4.23	-	4.54
Washing hair	129	6.49	100	6.05
Changing bedsheets	50	2.52	80	4.84
Cooking main dish	240	12.07	300	18.15

Source: AOK Nordost et al. (2019) and Pflegekasse bei der AOK Bayern et al. (2019).

Co-payment rates are unclear in LTC

Beneficiaries make co-payments for care costs with their own financial resources. However, the amount of this co-payment is largely unknown. Estimations range from €143 to €482 per month depending on the care level. There are no estimations following the expansion of benefits and re-classification of care (TNS Infratest 2017).

5.2 Price-setting in residential care

Residential care follows a framework similar to home care. Residential providers negotiate two contracts to provide LTC and to be reimbursed by social LTCI funds. Providers of residential care have a contract on care provision with state associations of social LTCI funds (§ 72 SGB XI). Contracts regulate all matters between the LTCI funds and service providers in terms of, for instance, the appropriateness of nursing staff, the content and scope of services as well as issues of quality assurance. Second, they have a reimbursement agreement (§ 85 SGB XI) with state associations of social LTCI funds and social welfare organizations. Residential care providers can negotiate add-on payments for additional comfort services and additional staffing. Contracts are subject to regulatory frameworks at the state level (§ 75 SGB XI). The (agreed) remunerations and charges for care have to be economic and efficient, and retroactive reimbursement of costs (potential loss) is not possible (European Commission 2017).

Prices are negotiated individually on a regional or state level between a residential home, welfare organizations and LTC funds, whose enrolees contribute at least 5% of the residential home days (Pflegesatzverhandlungen). Prices are negotiated separately for nursing services, board and accommodation and investment costs. Board and accommodation and investment costs are the same for all residents, but nursing costs and reimbursements grow by increasing care degree (Table 6)

(Rothgang and Wagner 2019). Nursing costs are largely based on the number of nurses per beneficiary and vary depending on the beneficiary's care degree. The ratio of nurses to residents varies greatly across the *Länder*. Germany plans to introduce a nationwide, uniform instrument to assess nurse staffing requirements by mid-2020 (Rothgang and Müller 2019).

Residential homes can apply for negotiations on their care charges whenever they deem it necessary. Residential homes submit all cost data[13] to the negotiating parties including among others, staffing costs, aggregate patient data and infrastructure and material costs. By and large, negotiations follow a two-step approach (Schreyögg and Milstein 2019). In the first step, residential homes have to explain why higher charges have become necessary and appropriate, for example, due to tariff increases, additional personnel and increases in material costs ("plausibility check"). If approved, the residential home cost data is benchmarked against other residential homes of similar size in the same Länder ("external comparison"). Residential homes with costs in the lower third are deemed cost-efficient. Residential homes above that benchmark are further investigated. Negotiations on care charges are limited to six weeks. If the parties fail to reach an agreement, an arbitration board decides. This board is composed of representatives of the LTCI funds (both public and private) and the residential home on equal terms, a non-partisan chair and two non-partisan members. The non-partisan members are appointed by the decision of the two parties and drawn by lot if necessary. If they fail to reach an agreement, the State Ministry of Health makes the decision. It also supervises the arbitration board and defines its rules of operation. Both parties can sue the decision of the arbitration board at the Superior State Social Court.

As negotiations are undertaken regularly and consider current and future cost increases, providers have a high degree of certainty. Because the contract and fee agreements include all costs (with the exception of service charges and additional services over which providers have some freedom), providers are not able to inflate the portion of the costs that are passed onto individual beneficiaries beyond what is stated in the contract. In addition, individual providers are not able to charge differential rates to people receiving the same services. These local negotiations allow flexibility for services to be designed to meet local needs, but also allow for large variations in the prices paid by beneficiaries.

13 To date, it is not clear which data residential homes have to submit. Only few Landers have implemented state-wide regulations on this matter.

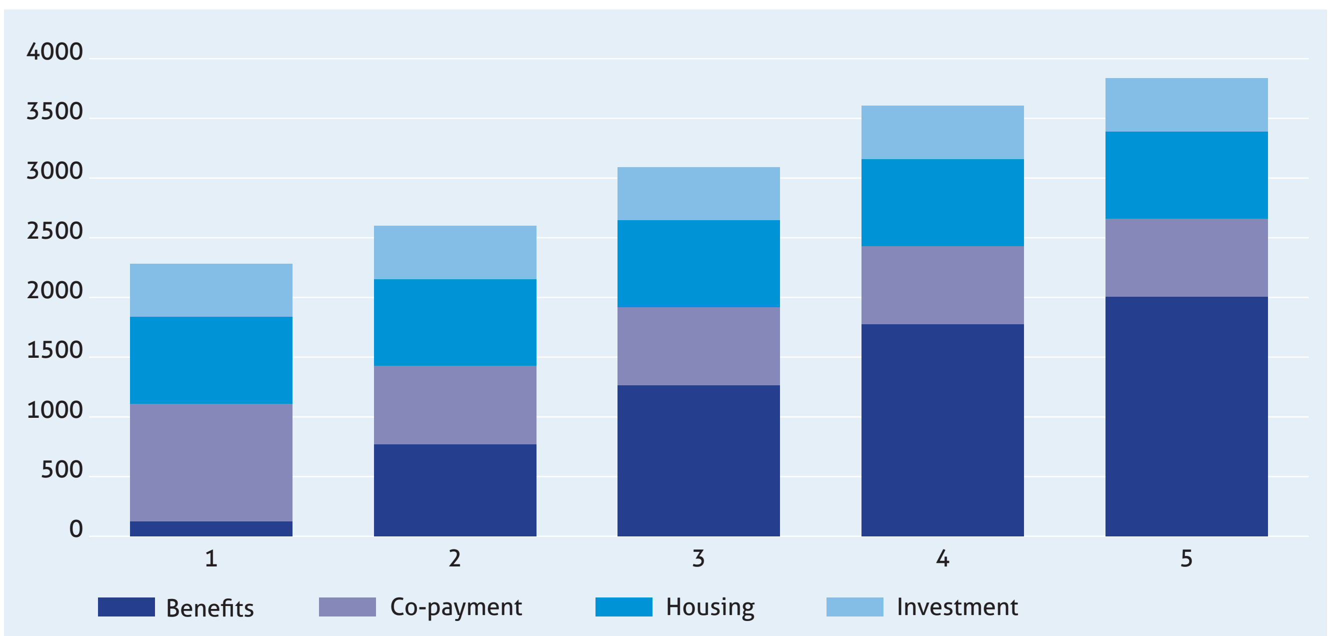
Table 6
Reimbursement per day per person by care degree, residential care, 2019, country average (in EUR).

	Residency (in EUR)		Day-care (in EUR)	
Care degree	**Full-time**	**Short-term**	**Day**	**Night**
1	40.62	61.12	42.36	31.90
2	51.65	70.46	47.99	36.34
3	67.77	81.81	52.51	40.79
4	84.55	93.23	57.06	45.27
5	92.18	99.36	60.67	49.68
Board and accommodation	24.89	27.43	14.36	23.05

Source: adapted from Statistisches Bundesamt (2020).

The nationally defined benefits schedule, which is paid directly to providers, covers part, but not all, of the negotiated price. People in need of care are invoiced for those parts of the receipt that exceed the defined coverage of the care insurance, the costs for accommodation and meals and a contribution to investment costs[14]. The amount that an individual has to pay depends on the total cost of their care.

Figure 7
Monthly rates in EUR by component by care degree, 2019, residential care.



Note: Data reports monthly rates by enrolees covered by the largest group of LTCI funds (about 28 million/market share of 38.4%). Data from other LTCI funds may differ slightly.
Source: Verband der Ersatzkassen (2019).

14 Germany's 16 Landers are responsible for subsidizing the investment costs of LTC facilities. Details, in particular the nature and extent of financing, are governed by state laws. However, there is no mandatory legal obligation to fund investment costs of the LTC infrastructure by the Landers. While daily operating and care costs are to be paid by the users and residents or the LTC fund, some contributions to investment costs not covered by state subsidies have to be paid by the residents of care homes ("investment surcharge").

Beneficiary co-payments have increased over the past decades

In 2019, total monthly average costs ranged from €2284 for degree 1 to €3835 for degree 5. The co-payment rate per provider amounted to €1830 in care degrees 2 to 5 (Figure 7). LTCI benefits ranged from €770 to €2005 depending on the degree. The co-payment rate differed among the *Länder*, ranging from €1218 per month in Saxony-Anhalt to €2252 in North Rhine-Westphalia with an average co-payment of €1830 in 2019, excluding co-payment for training. Nursing costs ranged from €286 in Thuringia to €906 in Bade-Wuerttemberg, housing costs ranged from €549 in Saxony-Anhalt to €996 in North Rhine-Westphalia and investment costs varied from €286 in Saxony-Anhalt to €541 in Hamburg (Verband der Ersatzkassen 2019). By and large, co-payments are higher in South-West and Western Germany than in the North-East. Differences result, among others, from differences in salaries, state regulations, e.g. on staffing, differences in ownership and size (Haun 2020).

The co-payment rate has increased in past years. From 1999 to 2015, the monthly co-payment increased from €995 to €1523 in level 1, from €1097 to €1739 in level 2 and from €1410 to €1969 in level 3 (Rothgang and Müller 2019). In 2017, following the split into five care degrees and changes in the distribution of co-payments across care degrees, monthly co-payments have amounted to about €2100 for care degree 1 and €1750 for care degree 2 to 5 per month for beneficiaries in residential care (Rothgang and Müller 2019). In 2019, co-payments they increased to €2159 for care degree 1 and €1830 for degree 2 to 5 (Verband der Ersatzkassen 2019).

People who cannot meet the additional costs of care can apply for social assistance. In order to access this safety net, they must undergo a means test, which takes account of their income, savings and assets and those of their close family. While adults are legally obliged to financially contribute to the care costs of their LTC eligible parents, a reform that came into effect in 2020 introduced an income threshold of €100 000 per year. If the gross income of the children is below this value, they do not have to contribute to the nursing home costs of their parents. Furthermore, Germany has tabled a proposal to limit the co-payment for nurse-related provider costs to €700 for up to 36 months (Bundesministerium für Gesundheit 2020). More recent discussions suggest a reduction of co-payments for nursing costs by 25% if the resident's length of stay exceeds 12 months, by 50% if it exceeds 24 months and by 75% if it exceeds 3 years. Additionally, the *Länder* should co-finance investment costs by €100 per full-time resident (Hommel 2021).

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